Treatment by Medicine and Magic in Coptic Documents "A Linguistic and Cultural study"

Dissertation

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Declaration

I hereby declare that the dissertation entitled "Treatment by medicine and magic in Coptic texts" is written by me on the basis of my doctoral project experimental work in the Department of Egyptology and Coptic Studies, Georg-August-University Göttingen. All sources utilized in this thesis research work are properly quoted. In addition, I confirmed that this thesis is written by me and not under consideration in any other university for award of doctoral degree or any other degree.

Göttingen, 2021.

Dedication

I dedicate the successful completion of this thesis to my loving parents, my husband and children.

Abstract

This thesis examines the evidence for healing practices in the Post-pharaonic and Early Islamic periods in Egypt. It uses all Coptic medical and magico-medical sources in the IV-XI centuries CE. This thesis investigates the healing methods from various evidence: Coptic medical and pharmaceutical texts, Coptic magico-medical texts, private letters, legal documents and literary sources.

Chapter 1 provides an introduction to this study. Chapter 2 offers detailed data on all medical sources, which constitute the main source of knowledge in term of diseases and methods of treatment. Chapter 3 examines all remedies applications and the use of each type. This chapter also examines the components and the effectiveness of each remedy with particular focus on the formulae in remedy use. Chapter 4 explains units of weights and measurements of drugs. This chapter also describes the various dry and liquid measure and the common abbreviations for each measurement. Chapter 5 provides a synoptic outline of all medical prescriptions and disorders that affected the human body. This chapter focuses on the symptoms and the diseases of the affected organs. It presents an overview of the surgical interventions, anatomy and physiology through the medical recipes. Chapter 6 affords an in-depth study of the use of magic as a method of healing. It begins with a discussion on the concept of magic and a general overview of Ancient Egyptian magic, and the relationship between magic and religion. This chapter deals with various categories of healing, ritual texts such as ritual manuals, amulets and prayers, in particular with regard to the diseases that were treated by magical procedures. Chapter 7 examines the different and unusual ingredients in medical recipes. Chapter 8 explains the monastic medical care system, and the healthcare institutions, with special attention given to the earliest monastic illnesses and healing writings such as the archives of the Monastery of Hathor's private letters, the letters of Pachomius, and the letters of Antony; in addition, the miraculous healing which took place in specific monasteries in Late Antique Egypt. Chapter 9 discusses the main medical professions and practitioners who are presented in medical sources and were involved in the medical care process. Chapter 10 summarises the main research findings of the study.

Zusammenfassung

Diese Arbeit untersucht die Belege für Heilpraktiken in der postpharaonischen und frühislamischen Zeit in Ägypten. Sie verwendet alle koptisch-medizinischen und magisch-medizinischen Quellen im 4.-9. Jahrhundert n. Chr. Darüber hinaus untersucht die Arbeit die Heilmethoden anhand verschiedener Quellen: koptisch-medizinische und pharmazeutische Texte, magisch-medizinische Texte, Privatbriefe, juristische Dokumente und literarische Quellen.

Kapitel 1 bietet eine Einführung in die vorliegende Studie. Kapitel 2 liefert detaillierte Daten zu medizinischen Quellen, die die wichtigste Wissensquelle in Bezug auf Krankheiten und Behandlungsmethoden darstellen. Kapitel 3 untersucht alle Typen und Anwendungsmethoden von Heilmitteln. In diesem Kapitel werden auch die Bestandteile und die Wirksamkeit jedes medizinischen Mittels untersucht. In Kapitel 4 werden die Gewichtseinheiten und Maßeinheiten von Drogen thematisiert. In diesem Kapitel werden auch die verschiedenen Trocken- und Flüssigkeitsmaße und die gebräuchlichen Abkürzungen für jedes Maß beschrieben. Kapitel 5 bietet einen zusammenfassenden Überblick über alle ärztlichen Verordnungen und Störungen, die den menschlichen Körper betreffen. Dieses Kapitel konzentriert sich auf die Symptome und die Erkrankungen der betroffenen Organe. Es bietet einen Überblick über die chirurgischen Eingriffe, die Anatomie und Physiologie anhand der medizinischen Rezepte. Kapitel 6 bietet eine eingehende Untersuchung der Verwendung von Magie als Heilmethode. Es beginnt mit einer Diskussion über den Begriff Magie und enthält einen allgemeinen Überblick über die altägyptische Magie und die Beziehung zwischen Magie und Religion. Dieses Kapitel befasst sich darüber hinaus mit verschiedenen Heilarten, Ritualtexten wie auch Ritualhandbüchern, Amuletten und Gebeten, insbesondere im Hinblick auf die Krankheiten, die durch magische Verfahren behandelt wurden. Kapitel 7 untersucht die unterschiedlichen und ungewöhnlichen Zutaten in medizinischen Rezepten. Kapitel 8 erläutert das klösterliche medizinische Versorgungssystem und die Gesundheitseinrichtungen. Dabei wird den frühesten in Klöstern auftretenden Krankheiten und Heilung betreffenden Schriften wie den Archiven der privaten Briefe des Klosters von Hathor, den Briefen des Pachomius und den Briefen des Antonius besondere Aufmerksamkeit gewidmet. Weiterhin thematisiert wird die Heilung durch Wunder, die in bestimmten Klöstern im spätantiken Ägypten stattfand. Kapitel 9 diskutiert die wichtigsten medizinischen Berufe und Praktiken, die in medizinischen Quellen vorgestellt werden und am Versorgungsprozess beteiligt waren. Kapitel 10 gibt eine Zusammenfassung der Forschungsergebnisse.

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Contents

LIST OF ABBREVIATIONS	viii
LIST OF FIGURES	12
1. INTRODUCTION	14
1.1 CONTESTED ISSUES	17
1.2 RESEARCH QUESTIONS	17
1.3 PREVIOUS STUDIES	17
1.4 METHODOLOGICAL APPROACH AND AIMS OF THE STUDY	19
1.5 STRUCTURE OF THE THESIS	19
2. SOURCES	21
2.1 PRIMARY SOURCES	21
2.2 COMPLEMENTARY SOURCES	32
3. REMEDIES IN COPTIC MEDICINE	38
3.1 ORAL ADMINISTRATION (ingestion)	40
3.2 EXTERNAL AND TOPICAL APPLICATION	42
3.3 INTERNAL APPLICATION AND RECTAL MEANS	60
3.4 INHALATION	62
3.5 DOSAGE AND TIMING	63
4. METROLOGY SYSTEM AND DOSAGE	67
4.1 DRY MEASURES	68
4.2 LIQUID MEASURES	75
5. MEDICAL RECIPES	81
5.1 PRESCRIPTION STRUCTURE	81
5.2 HEAD DISEASES	84
5.3 EAR DISEASESES	89
5.4 MOUTH DISEASES	90
5.5 DENTAL AND ORAL DISEASES	91
5.6 EYE DISEASES	97
5.7 STOMACH DISEASES	134
5.8 INTESTINE DISEASES	137
5.9 LIVER DISORDERS	146
5.10 ANAL DISORDERS	147
5 11 BLADDER DISEASES	150

5.12 GENITAL DISEASES	152
5.13 PSYCHOTIC DISORDERS	159
5.14 LIMBS DISEASES	159
5.15 BREAST DISEASES	163
5.16 SKIN DISEASES	166
5.17 DISEASE OR CONDITION THAT AFFECTS MULTIPLE ORGANS	193
5.18 INTERNAL DISEASES	211
5.19 GENERAL RECIPES	215
5.20 SURGICAL PROCEDURES	220
5.21 ANATOMY AND PHYSIOLOGY	226
6. MAGIC AND MEDICINE IN COPTIC SOURCES	233
6.1 ETIOLOGY AND THERAPY	233
6.2 RELATIONSHIP BETWEEN MAGIC AND RELIGION	236
6.3 RITUAL MANUALS	243
6.4 AMULETS	245
6.5 THE PRAYER	261
6.6 DISEASES TREATED WITH MAGIC	268
6.7 NAMES AND MAGICAL WORD IN MEDICO-MAGICAL TEXTS	294
7. UNCOMMON INGREDIENTS IN COPTIC MEDICAL TEXTS	297
7.1 PLANT RESOURCES	297
7.2 ANIMAL RESOURCES	299
7.3 INSECT RESOURCES	305
7.4 BIRD SUPPLEMENTS	307
7.5 REPTILES SOURCES	308
7.6 MAMMAL RESOURCES	309
7.7 MINERAL RESOURCES	311
7.8 AQUATIC ORGANISM	312
7.9 HUMAN RESOURCES	313
8. THE ROLE OF MONASTERIES IN MEDICAL HEALTHCARE	317
8.1 INPATIENT CARE OF COENOBITIC MONASTICISM	319
8.2 PRIMARY MEDICAL SOURCES FROM MONASTIC LIBRARIES	321
8.3 THE MONASTERY OF APA JEREMIAS	322
8.4 THE MONASTERY OF APA THOMAS	325

8.5 THE MONASTERY OF APA ELIAS	327
8.6 THE WHITE MONASTERY	327
8.7 THE MONASTERY OF EPIPHANIUS	327
8.8 OUTPATIENT CARE OF COENOBITIC MONASTICISM	328
8.9 ARCHIVES FROM THE MONASTERY OF HATHOR	331
8.10 THE LETTERS OF PACHOMIUS	332
8.11 THE LETTERS OF ANTONY	334
8.12 ILLNESS, DONATION AND HEALING	336
8.12.1 THE MONASTERY OF APA PHOIBAMMON	337
8.12.2 TOPOS OF SAINT COLLUTHOS	345
8.12.3 THE SHRINE OF APA MENA	349
9. MEDICAL PROFESSIONS AND NURSING	356
9.1 DOCTORS	356
9.2 NURSES	361
9.3 ELDERS AND STEWARDS	362
9.4 MEDICAL EDUCATION	362
9.5 PERSONS MENTIONED IN MEDICAL TEXTS	364
10. CONCLUSION	374
Appendix A	379
Inventory of Coptic medical texts	379
Ribliography	384

LIST OF ABBREVIATIONS

ACM Meyer, M.W., and Smith, R. 1999. Ancient Christian Magic: Coptic

Texts of Ritual Power (Princeton)

Acta Orientalia; Societates Orientales Danica, Norregia, Svecica

(Leiden/Copenhagen)

AfP Archiv für Papyrusforschung und verwandte Gebiete

(Stuttgart/Leipzig)

AJSL American Journal of Semitic Languages and Literatures (Chicago)

ANEGM Ancient Near Eastern and Graeco-roman Medicine (Leiden)

ANRW Aufstieg und Niedergang der Römischen Welt (Berlin-New York)

APF Archiv für Papyrusforschung und verwandte Gebiete – Beihefte

(Berlin-Boston)

ASAE Annales du Service des Antiquités de l'Égypte (SAE) (Cairo)

BASP Bulletin of the American Society of Papyrologists (Ann Arbor)

BBA Berliner byzantinistische Arbeiten (Berlin)

BHM Bulletin of the History of Medicine (Maryland)

BIFAO Bulletin de l'Institut Français d'Archéologie Orientale (Cairo)

BMMA Bulletin of the Metropolitan Museum of Art (New York)

BMSAES British Museum Studies in Ancient Egypt and Sudan (online journal)

BSAC Bulletin de la Société d'Archéologie Copte (Cairo)

Byzz Byzantinische Zeitschrift (München-Köln)

CanJOphthalmol Canadian Journal of Ophthalmology (Toronto)

CdE Chronique d'Égypte; Bulletin périodique de la Fondation

Égyptologique Reine Élisabeth, Bruxelles (Brussels)

CH Church History (Chicago)

CoptEncyc Atiya, A.S., ed. 1991. The Coptic Encyclopedia, 8 volumes (New

York)

CP Classical Philology (Chicago)

CRAIBL Comptes rendus des séances de l'Académie des Inscriptions et

Belles-Lettres (Paris)

DChAE Deltion of the Christian Archaeological Society (Athens)

HURJ John Hopkins Undergraduate Research Journal (online)

HTR The Harvard Theological Review (Cambridge)

JA Journal Asiatique (Paris)

JAmColCertifWoundSpec The Journal of the American College of Certified Wound Specialists

(online)

JAOS Journal of the American Oriental Society (New York)

JARCE Journal of the American Research Center in Egypt

(Boston/Princeton/New York/Cairo)

JCoptS Journal of Coptic Studies (Leuven)

J. R. Soc. Med. Journal of the Royal Society of Medicine (London)

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in Kairo (Berlin)

MIFAO Mémoires Publiés par les Membres de l'Institut français

d'Archéologie orientale du Caire (Cairo)

MMAB Metropolitan Museum of Art Bulletin (New York)

MPER Mitteilungen aus der Sammlung Papyrus Erzherzog Rainer (Vienna)

Mus Le Muséon: Revue d'études orientales/Tijdschrift voor

Orientalisme (Louvain)

OEAE Oxford encyclopedia of ancient Egypt (New York)

OpAthRom. Opuscula Annual of the Swedish Institutes at Athens and Rome (Stockholm)

PGM Preisendanz, K. 1973. Papyri Graecae Magicae: Die griechischen

Zauberpapyri. 2 vols., (Stuttgart)

Proc. R. Soc. Med. Proceedings of the history of the Royal Medicine Society of

Medicine (London)

Revue égyptologique (Paris)

ROC Revue de l'orient chrétien (Paris)

STAC Studien und Texte zu Antike und Christentum (Tuebingen)

Stud. papyrol. Studia papyrologica: revista española de papirologia (Barcelona)

SudhoffsArch. Sudhoffs Archiv (Wiesbaden)

Texas Heart Institute Journal (Texas)

WdO Die Welt des Orients (Göttingen)

ZÄS Zeitschrift für Ägyptische Sprache und Altertumskunde (Berlin)

ZAC Zeitschrift für Antikes Christentum (Berlin)

ZPE Zeitschrift für Papyrologie und Epigraphik (Bonn)

LIST OF FIGURES

Figure 14: Magical Wands or Knives.

Figure 1: O. Crum 487. Figure 2: Coptic medical texts corpus by numbers. Figure 3: Medical texts by material and century. Figure 4: Medical texts by century. Figure 5: Remedies in Coptic medical texts. Figure 6: A small hand-balance of bronze dating from the post-Pharaonic period in the Metropolitan museum of Art. Figure 7: Internal organs of human body. Figure 8: Anatomical organs. Figure 9: Surgical instrument case. Figure 10: Heid. Äg. Slg. Inv.-Nr. 491. Tweezers, from Qarara. Figure 11: Yao Sabbaoth. Figure 12: Drawing of a cock: 1c xc "Jesus Christ". Figure 13. SABAOTH SABA AO written within the ring signs.

Figure 15: Metropolitan Museum of Art, wand to protect the lady, Merisenb.

Figure 16: Doorjamb, Limestine block.

Figure 17: A group of chambers (perhaps a hospital).

Figure 18: Sandstone brick from Erment; About 6th-7th cent. CE.

Figure 19: Sandstone stele from Erment (?).

1. INTRODUCTION

The aim of this thesis is to investigate the various treatment methods and medical texts and written in Coptic. The term "Coptic" designates the final stage of the ancient Egyptian language. Coptic was written in the Greek alphabet, supplemented by six or seven letters borrowed from the Demotic script and used by Egyptians in the text production between the 3rd and 13th cent. CE. It continues to be used by Coptic Orthodox Christians as a liturgical language. The probable origin of Coptic as a literary language lies in the translation of the Bible, Old and New Testament, from Greek into the local language of Egypt as part of the spread of Christianity from Alexandria into the provinces. Religious and literary texts were not only translated into Coptic, but also newly-composed in this language. In addition to these genres, we find legal, documentary and scientific texts in Coptic. To the latter belong forty-one pieces of medical literature datable from the 4th to 11th cent. CE. The overwhelming majority of these texts originated in Upper Egypt.¹ In addition, we have other sources of healing practices obtained from the documentary and literary sources from early monastic writings of health and illness from especially from three collections of letters, the archives of the Monastery of Hathor's private letters; the letters of Pachomius, the founder of coenobitic monasteries in Upper Egypt; and the Letters of Antony.² Other sources of healing methods come from ecclesiastical literature, especifically donation documents which are full of healing and miracles narratives.3

It has long been known that the ancient Egyptians were advanced in medicine and practiced certain kinds of surgery such as suturing, skull surgery and setting of bones. Dentistry was also practiced as a branch of medicine. Additionally, the ancient Egyptians practiced a number of complementary treatments such as herbal medicine and aromatherapy, and had knowledge of the usage of essential oils and flower remedies. The roots of western medicine can be found in ancient Egypt about 5000 years ago. Post-pharaonic medicine was influenced by Egyptian and Greek remedies, as well as, after the Arab conquest of Egypt in the 7th cent. CE, by Arabic medicine. Our evidence for the medicine practiced during the Post-pharaonic period is reliant mainly on documentary evidence in the form of medical texts which were written on various media such as papyrus, ostraca, leaves of parchment, paper, and on walls (as dipinti). Preserved Coptic texts concerning medicine date back to between the early 4th and 11th cent. CE. Evidence of medical practices is also available in Coptic literary and hagiographical texts. The surviving documentation for

¹ Cf. appendix A.

² Sections (8.9); (8.10); (8.11).

³ Section (8.12)

⁴ The knowledge of surgical procedures is mainly obtained from the Edwin Smith papyrus, which contains the first example of suturing technique, trauma and joints surgeries. Ranke 1933; Sullivan 1996.

⁵ Nunn 1996: 156–160.

medical practices, however, is still so incomplete that a classification corresponding to that available for ancient Egyptian medicine has not been possible. Our evidence for Coptic medicine comes from scattered, and often not easily accessible publications of medical and magical texts. One of the objectives of this study, therefore, is to provide a survey of the documentary evidence for medical texts, and compare them with the ancient Egyptian, Greek and Arabic documentation.

The study of these medical texts gives us a close view of the daily life of the Egyptian population in this period. Furthermore, it unveils the main diseases that were common among the people and how they were treated them by using the medical recipes, surgeries, rituals, magic and religion. Medical recipes contain various types of remedy administrating remedies such as oral ingestion in the form of as pills, internal application as a pessary or paste, an external or topical application using powder, ointment, poultice or wrappings, or baths. In addition, remedies were also applied through fumigation (where the woman was required to sit or squat over the remedy), or even through inhalation or smoking. Each form of administration was recommended for particular diseases and was carried out according to specific instructions.⁷

Other sources for medical practices can include mythological texts, amulets, and spells. According to the ancient Egyptians, illnesses were the works of gods, issued as a punishment, or of demons as a form of vengeance. Therefore, those affected invoked either the deity or the demons in order to achieve healing. The diversity of sources provides us with information on how the various physical diseases faced by the ancient Egyptians were defied. A further objective of this study is to develop, for the Post-pharaonic sources a typology of the physical diseases, and their respective methods of treatment, whether by medical or magical actions.

While investigating medico-magical artifacts, it can be noticed that the majority of healing spells did not distinguish between magic, medicine, and religion. Furthermore, some amulets contain scriptural quotations such as the incipits of the four canonical Gospels, extracts form the Psalms and The Lord's Prayer. The act of prayer was especially prevalent in the monastic communities; even the private letters between the monks often contained a request for prayer in the case of illness, namely "pray for me, for I am sick".

In this study, I analyse how some illnesses, namely mental disorders or demonic possession, were treated with magical means rather than medical treatment. This may be due to the fact that mental illnesses were not acknowledged as medical diseases and being possessed meant that there was a hidden spirit or diabolical power inside the body of the affected person. I also demonstrate that there were some diseases

⁶ Till 1951a: 5.

⁷ For example, P. Ryl. Copt. 106; Ch 74; Ch 228.

⁸ Such as (O.Vind.Copt. 363).

⁹ Kropp1930: 2.207.

whose treatment was shared between medicine and magic. By providing an extensive survey of the diseases that were treated with both medicine and magic, in order to recognise the differences between these methods of treatment are highlighted.

The hierarchy of Coptic doctors was not as clearly demarcated as that of the ancient Egyptians and there were no specialists for particular diseases. ¹⁰ They were training doctors and masters, as well as ophthalmologists. There were also female gender doctors, who performed medicine in the monastic communities. ¹¹ Such descriptions provide us with evidence of monastic care (precursors of hospitals) in the 4th and 5th cent. CE. A more definitive explanation concerning hospitals and curative organizations, including their medical staff and the concept of the private doctors is discussed in Chapters Eight and Nine. Andrew Crislip's name appears prominently in this thesis as he is the main scholar who provides us with a comprehensive explanation of the evolution of hospitals from monastic healthcare in Late Antique Egypt. ¹² Crislip divides the Egyptian monastic communities into two types – lavra and coenobitic monasticism – and illustrates the forms of healthcare provided by each community. Monasteries are depicted as the main centers of medical care in Coptic Egypt. Medical treatment was provided by charitable foundations, hospitals, and infirmaries. Professional doctors and nurses were brought to the hospitals of monasteries to treat the sick people. They were the primary caregivers who provided natural and physical therapies. Furthermore, monks, elders, and stewards provided additional physical and spiritual treatments (section 3.9).

In this study, I highlight the medical material from monastic libraries, previously underestimated, which contain important information on a number of diseases and their medical prescriptions. I focus primarily on the medical resources from the monastic libraries of the White Monastery of Shenoute, the Monastery of Apa Thomas at Wadi Sarga, the Monastery of Apa Jeremias at Saqqara, and the Monastery of Epiphanius at Thebes. An emphasis is placed on the Monastery of Apa Jeremias, since this site offers us the earliest archaeological evidence of a monastic infirmary in Egypt. This infirmary provides us with a medical handbook, as well as medical inscriptions and a dedicatory inscription with the names of physicians. Moreover, I will discuss the relationship between illness, donation and healing, whereby a monastery would receive a donation gifted by the sick, and in turn grant a miracle healing. The monastery was active in this process because it was the key center of offering forgiveness and offering healing. This investigation is expanded and improved upon by researching the healing miracles of the holy *topos* and highlighting the types of diseases and the *materia medica* of these texts. ¹³

¹⁰ Richter 2016a: 38.

¹¹ Kolta 1984: 166.

¹² Crislip 2005a.

¹³ (Section 8.12).

1.1 CONTESTED ISSUES

Our evidence of Coptic medicine comes from scattered and often not easily accessible publications of medical and magical texts. There is no one inclusive and comprehensive study that has collected all the available sources. In addition, there is no chronological study of the medical sources, ¹⁴ in conjunction with what was achieved in the Pharaonic period. Equally important is that no scholar has previously studied the Coptic medical texts in a comparison of Coptic texts with magical sources that deal with medicine and healing. Thus, I believe that it is mandatory to comprehensively study every medical source gather them together in one study and compare them with the literary and magical sources. In addition, I will include a chronological study of the sources highlighting all the recent discoveries. Some of the texts contain no details concerning their date and provenance, hence it is difficult to determine the scribe of the medical texts and the types of diseases that appeared in some places more than the others. Many magical names, word and signs are still unknown and discovered with no available translation. ¹⁵ Furthermore, I found that the Coptic medical texts contain many unusual and unfamiliar herbs. Finally, several publications contain the translations of the Coptic text and comments without the transcriptions and without photographs.

1.2 RESEARCH QUESTIONS

While addressing the above-mentioned issues, the following questions are addressed:

From the available resource material, is there sufficient information on the diseases and their treatment methods; did the Coptic physicians use empirical reasoning when prescribing remedies; to what extent was Coptic medicine based on magical versus logical, scientific and empirical reasoning; did the magico-medical texts contain specific drugs; was the Post-pharaonic pharmacology vastly different from modern-day pharmacology; was the Coptic medicine influenced by Egyptian, Greek, and Arabic medical treatments?

1.3 PREVIOUS STUDIES

Previous studies on Coptic medicine mainly presented publications of the medical texts with their respective translations in separate articles. Several of these publications are now also extremely outdated. The main, longest medical text is the Chassinat Papyrus, discovered in 1892, at Meshaikh, near the ancient Lepidotonpolis, and preserved at the French Archaeological Institute in Cairo. This papyrus is well

¹⁴ A very comprehensive list of Coptic medical texts is provided by Richter 2016a: 47–49.

¹⁵ In the field of magical texts, *The Coptic Magical Papyri: Vernacular Religion in Late Roman and Early Islamic Egypt* at the University of Wurzburg, which aims to provide a new edition for all magical texts, and magical healing [https://www.coptic-magic.phil.uni-wuerzburg.de/].

preserved, and contains 237 medical prescriptions regarding eye, skin and abdominal diseases. ¹⁶ Taken from monastic libraries, there are two leaves of parchment, which once formed part of a book, containing forty-five prescriptions. ¹⁷ From White Monastery library we have a medical papyrus bearing page numbers 214 and 215, with eleven medical prescriptions for treating pain in the breasts and the genitals. 18 Emerging from the Monastery of Apa Jeremias, there are six parchment leaves from the sixth century with the page numbers 103-106, 111-114, and 135-136. They were probably parts of a medical book, containing medical recipes are sorted by specific herbal drugs to treat eye disorders, some gastrointestinal diseases, and diseases of internal organs such as the spleen, and liver. These parchment leaves are now in the Egyptological Institute of the University of Copenhagen. ¹⁹ The remaining studies can be found in a series of publications from various collections such as the Louvre Museum, Heidelberg papyrus collections, Berlin papyrus collections, the British Museum, and the John Rylands Library in Manchester. Some of these texts have been translated into the German language without Coptic transcriptions as in the case by Walter Till.²⁰ After sixty-three years from Till's study, Richter²¹ published a new Coptic medical texts P.TT157-470 and P.Heid. G 698(c), both of them considered the earliest known evidences of Coptic medical texts, dating to 4th/5th cent. CE. In addition, he published P.Carlsberg 500 (unpublished fragments) from 5th-6th cent. CE, and P.Louvre AF 12530 dating to 9th-10th cent. CE.

Furthermore, other scholarly articles concerned themselves with the medicine referenced only in Coptic literary texts.²² Once again Crislip's study is considered the main study that deals with hospitals' beginnings in Egypt with reference to the monasticism's ascension and health care institutions in late antiquity.

It is also noteworthy that other publications concerning Coptic magic, such as Meyer and Smith, only deal with magical texts without transcriptions.²³ Hence, my thesis is the first study to put together all available texts with their Coptic transcriptions and English translations in one study and compare them with the magical texts.

¹⁶ Chassinat 1921.

¹⁷ Zoega 1810.

¹⁸ Bouriant 1888.

¹⁹ Erichsen 1963.

²⁰ Till 1951a.

²¹ Richter 2014.

²² Amundsen 1982; Crislip 2006.

²³ Meyer and Smith 1994.

1.4 METHODOLOGICAL APPROACH AND AIMS OF THE STUDY

This study has examined all available Coptic-language sources concerning medical practices throughout the late antique period to the early medieval age and those originating in all the geographical regions of Egypt. These sources are brought together in a comprehensive and inclusive study, which also incorporates all relevant Coptic magical and literary sources. This study is the first of its kind to gather and reproduce all primary sources texts in both Coptic and English. It also highlights all necessary Arabic medicinal terminology, and a transcription of the Arabic terms is provided. To the extent feasible, I have sought to provide the equivalent Demotic, Greek, and Arabic sources. Throughout this study, where possible, I have supplied the Arabic or Greek equivalents to the anonymous Coptic words in the medical texts, in order to understand the meaning of the recipes in question as exactly and completely as possible.

1.5 STRUCTURE OF THE THESIS

Following this introduction, the thesis is divided into nine chapters. Chapter 2 explores all available medical texts and provides a comprehensive description of all texts in Coptic related to this study. I have collected all available witnesses written on ostraca, papyrus, parchment, leather, paper, and also on walls. I have organised them chronologically from the earliest to the latest. Every source is followed by a comprehensive description including the material, provenance, dimensions, date, palaeography, bibliography and contents. Furthermore, I have included other medicine-related sources such as private letters, excavations discoveries and literary sources.

Chapter 3 focuses on remedy types in Coptic medical texts, pharmaceutical drugs, uses and methods, doses of the ingredients, and above all, diseases which could be treated with a remedy. It explores the various components of each remedy type and the differences between them.

Chapter 4 examines the weights and measures used in pharmaceutics, and explores every unit and its common abbreviations. I have divided the measurements into two main types: dry and liquid measures. Each unit is followed by its abbreviation, etymology and modern equivalent.

Chapter 5 examines all medical texts by investigating all prescriptions and providing a complete description of all human organs and their specific diseases. All evidence from non-literary and literary sources is presented, in order to show the means and techniques used in the corresponding treatments and their effectiveness in healing. This chapter also discusses the structure of medical recipes and the features of medical documents. I have listed all available diseases according to the organs of the human body in order from top to bottom. The list includes various diseases affecting for example the head, eye, skin, limbs, and so on. In addition, it contains general prescriptions that benefited various body parts, and several diseases that did not relate to a specific organ in the human body, in an attempt to understand the symptoms

of these diseases and the affected organs. Moreover, this chapter provides a synoptic outline of the surgery system through the presentation of medical recipes, and presents an overview of the anatomy and physiology through medical recipes.

Chapter 6 analyses the herbs, magical names, magical signs and invokings of supernatural powers in the magical recipes. I explain why patients resorted to magical means to obtain healing, and how magical treatments were applied in order to obtain the desired results. This chapter provides an explanation of the categories of healing in ritual texts such as ritual manuals, amulets, and prayers; and delivers a complete syntax for each category. It analyses the drawings of amulets and their benefits in the healing process. It also provides an overview of the type of diseases that were cured by magic, compared to those that were treated with medicine, in an attempt to discover diseases that were threatening patients during that period in time and subsequently explore if there were diseases treated with both medical and magical procedures. This chapter provides an explanation for the most common magical names in medico-magical texts.

Chapter 7 deals with the unusual or unclear ingredients in Coptic medical texts, including the uncommon ingredients that were used only once in the medical material. Some medical recipes contain one or two uncommon ingredients; hence it is occasionally difficult to understand the exact meaning of the recipe at hand. I have divided these ingredients into various categories according to their basis of either plant, animal, insect, bird supplements, reptile, mammal, mineral, aquatic organism or human. These ingredients are found in both medical and medico-magical texts.

Chapter 8 focuses on the role of monasteries in medical healthcare, whereby medical treatments have been through the medical institutions of the monasteries the inpatient care in an infirmary, and outpatient care in individual cells. This role is clearly demonstrated through donation contracts; especially those contracts that involved children being donated to the monastery as a gift of gratitude due to a miraculous healing. This chapter will also underline the role of monks as healers, who used both herbal remedies and prayers to heal patients.

Finally, Chapter 9 provides details on the healing professions presented in medical texts and gives an overview of those persons mentioned and their role in medical practices. This chapter also provides an explanations of the medical education system and the most prominent persons mentioned in medical texts.

2. SOURCES

Various sources on ancient Egyptian medicine are accessible to the researcher.²⁴ By contrast, sources on Coptic medicine are limited. Our knowledge of the practice of medicine in the post-Pharaonic period is reliant on documentary evidence in the form of medical texts written on papyrus, ostracon, parchment, paper, and as *dipinto* on walls. Analyses of these texts reflect the nature of medicine in both a magicoreligious and medical context. Further sources include mythological texts, amulets, and letters. Conserved Coptic medical texts date back to between the 5th and 12th cent. CE. The surviving material, however, is still vastly incomplete, therefore a classification corresponding to that of ancient Egyptian medicine has not yet been made possible.

For this study, various sources of medical texts which are written on ostraca, papyrus, parchment, leather, paper, and also on the walls of monasteries, have been collected. These texts were discovered in various places in Egypt and the existent sources date back to between the 4th and 11th cent. CE.

The dates provided for the sources texts, outlined in the inventory, are obtained principally from Trismegistos²⁵ unless otherwise stated. Where other studies have been provided new dates have not been mentioned in the main body of publication, or in Trismegistos, these respective dates have been indicated in the information of this chapter's corresponding sources and in the inventory.

This chapter is an endeavour to provide an inclusive description of all available sources on Coptic medical recipes provided in this study. The following compendium provides information on the relevant medical texts. The sources are chronologically organised from the earliest to the newest. In certain cases, the provenance of the source text is unknown. Notably, all the sources are in Sahidic dialect and contain many Greek and some Arabic loanwords.

2.1 PRIMARY SOURCES

2.1.1 SOURCES FROM THE FOURTH & FIFTH CENTURIES CE

P.Heid. G 698c.:²⁶ Papyrus fragment, Heidelberg, Pap.-coll. inv. G 698c, 2.9 x 5.8 cm. Based on its paleography it dates back to between the 3^{ed} and 4th cent. CE, and belongs together with BKU III 396 and P.TT157-470 as one of the earliest-known Coptic medical texts.²⁷ The provenance of the text and its discovery are unknown. Medical drugs are only detailed in the last five lines. On its verso, the first line at

²⁴ Westendorf 1999, two volumes; Grapow, Deines, Westendorf 1954–1973, nine volumes; Nunn 1996.

²⁵ Trismegistos database [https://www.trismegistos.org/index.php].

²⁶ Richter 2014: 164–165 (no. 2).

²⁷ Richter 2014: 165.

the right edge is lost. Under the fifth line, there are no further traces of ink, hence one can see an edge and the bottom of a sheet in front of it.

The recto has a clear border at the top; the first line starts at the height at which the fifth line of the verso ends; remnants of a second line are still visible and the lower edge is not found; it seems that the top part of the page once existed. Richter²⁸ states that:

"This relation could indicate a small, landscape-format sheet with five lines on one side and two lines on the other side, such as a label. A second possibility would be that the impression of borders is caused by spacious spaces in the midst of the text, as they are not unthinkable in a recipe text, especially since the line endings obtained are quite different in length. It is not clear if that texts of the two sides belong together, and also not sure that the hand of the |-Side and the —-Side are identical (the forms of the Ny are similar, however, see Sigma, Omicron, and Ypsilon)".

The verso contains a noun μρπ "wine" in line 5, which is probably linked to the indefinite article oγ-, the Greek TPAKAKANGE "tragacanth" in lines 2 and 4.

BKU III 396:²⁹ Papyrus, Berlin, Pap.-coll. inv.22164, 5.5 x 13 cm, 4th-5th cent. CE. It is considered the second oldest Coptic medical document, and information on its provenance is unknown. It is written in bilingual Sahidic Coptic and Greek majuscule script. It preserves medical ingredients such as rubber, fresh rose, copper and calamine, and was intended to be used for an ophthalmic procedure. The name of the disease is missing.

*P.TT*157-470:30 Papyrus fragment, TT157, Fj. 470, 10.8 x 8.2 cm, 4th-5th cent. CE. It is the third oldest Coptic medical document, and its origin is well known: it was discovered in 2006 in the pile of TT157 hall, which belongs to the tomb of Nebwenenef³¹ (the high priest of Amun) in Dra' Abu el-Naga. It preserves six medical recipes concerning eye diseases. The papyrus leaf is damaged on all four sides. The text is distributed into two columns on each side of the same hand. The verso contains two columns; the first column contains the largest part of the recipe a total of 21 lines. The second column only contains single letters of six lines, and mixed language of Greek and Coptic. On the left section of the recto, there are the ends of 18 lines in the first column, and the right side contains 17 lines.

²⁸ Richter 2014: 164.

²⁹ Satzinger 1968: 127–128; Till 1951a: 113.

³⁰ Richter 2014: 156–159 (no. 1).

³¹ The tomb belongs to the early 19th Dynasty. For more details on the construction see Hofmann 2004: 51–53.

P.Mich. MS 136 p. 2-14:³² Parchment codex, Ann Arbor, Michigan MS 136, 4.125 x 4.875 cm, 5th-6th cent. CE. The codex from al-Faiyūm, ³³ contains variety magical and medical recipes from a Coptic book bearing the page numbers 2–14. In professional hand, the dialect is a mixture of Sahidic and Greek loanwords, including spellings in Old Coptic and drawings. The recipes of this text concern dental diseases, ear disorders, digestive disorders, skin diseases, gynecological problems, mental disorders or demon possession, constipation, paediatric-related diseases, and hipe pain.

P.Mich. **593***b*: ³⁴ Codex remains, University of Michigan, inv. 593b, 7 x 11 cm, 5th-6th cent. CE, unknown provenance. The text is distributed over two columns per page, 26 lines on the recto, the right column on the verso contains 24 lines, and the left column contains 25 lines. Recipes are characterised by a crown, but not persistently. The pages bear the numbers 167 and 168, and each page deals with particular medical recipes: page 167 deals with skin diseases such as wounds, thorns, heamorrhages, and swellings, and page 168, focuses on dental diseases and digestive disorders.

P.Mich. **593***a*: ³⁵ Papyrus, Ann Arbor, University of Michigan, inv. 593a, 7.25 x 9 cm, 5th-6th cent. CE, its provenance is unclear, it may originate from the south of Asyut. A one-sided sheet with writing upon only one side, which is in good condition. The first two lines are almost complete, but the remaining 16 lines have lost about a third of their length from the right side of the page. The dialect is Sahidic with Lycopolitan influences. The papyrus contains four incomplete medical and magical recipes, and one recipe against spleen disorders.

P.Carlsberg 500:³⁶ Parchment leaves, Copenhagen, Egyptological Institute inv. 500, each page measures approximately 9-9.50 x 8-8.50 cm.³⁷ It dates back to the early 6th cent. CE, and most likely originated in the Jeremias Monastery at Saqqara. It was bought in Cairo at the beginning of the 1930s by C. Schmidt. W. Erichsen published twelve pages, twice two double-leaf halves each of four consecutive pages: fol. A + fol. B, fol. C + fol. D), a paginated double-leaf half (fol. E) and the better-preserved half of an unallocated double leaf (bifolium F/i). The medical recipes are categorised by herbal drugs that were used against various illnesses of the eye, headaches, stomach conditions, urine problems, spleen, and liver disorders. Richter published ten pages (F/i vo, F/ii ro (Fragment), F/ii vo (Fragment), G ro, G vo, H ro, H vo, I/i ro, I/i vo, Blatt I/ii ro, I/ii vo). Since the parchments have been significantly damaged, these pages do not

³² Worrell 1935: 17–37 (no. 4): Meyer and Smith 1994:83 90 83–90 (no. 43): Pernigotti 1995: 3715–3717 (no. 21).

³³ Trismegistos, [https://www.trismegistos.org/tm/detail.php?tm=92874], (last accessed: 29.09.2019).

³⁴ Worrell 1935:187–92 (no. 6).

³⁵ Worrell 1935: 192–94 (no. 7).

³⁶ Erichsen 1963: 23–45; Richter 2014: 141; 183–189 (no. 4); 190.

³⁷ This small size probably indicates that it may have been carried by the physician when visiting patients.

present a coherent text or complete medical recipes but have preserved some herbal names with few details about these medicinal plants, such as fol. A vo 8–12 ιωβήκωβ νακριο(ν) είρητ ενίζεννα είχασε ερένεισε ο ν σογρε "Wild Jôbêkôb: It grows on high places, its leaves are thorny"; and fol. G vo lines 1–4: πέωμοβε είχωσβε εί

2.1.2 SOURCES FROM THE SIXTH & SEVENTH CENTURIES CE

P.Sarga 20:³⁸ Papyrus, London, BL?, 6.5 x 8.5 cm, 6th or 7th cent. CE. A one sided fragment, discovered in Wadi Sarga,³⁹ with non-literary hand consecutively. It contains fragments of 10 lines in a sloping manners and includes one medical recipe. The text is on one side only with nine lines contain incomplete medical recipes against belly, foot, and fingers conditions, along with invoking magical formulae like calling Iaô, Iaô.

P.Ryl.Copt. **109**:⁴⁰ Papyrus fragment, Manchester, John Rylands Library Copt. 109,⁴¹ 5 x 10 cm, 6th-7th cent. CE. The provenance is unknown. It contains a remedy for the face made of oil and other drugs with dissimilar uncials.

SBKopt. **I 006**:⁴² Papyrus, Vienna, ÖNB, Pap.-coll. inv. K 5595, 28 x 8.5 cm, 7th cent. CE, provenance is unknown. The papyrus contains 70 lines pf written text on both sides, and clearly structured by dividing lines between every recipe, however due to the poor state of preservation, the papyrus presents incomplete medical recipes and remedies such as oral remedies, powder, and collyrium, against spleen, skin, and eye disorders. (no photo)

P.KölnÄgypt. 12:⁴³ Papyrus, Köln, Pap.-Coll. inv. 5948, 9 x 8.8 cm, 7th cent. CE. From Al-Faiyūm. The papyrus contains nine lines in a practiced script in the Faiyumic dialect; there is a medical recipe for skin disease in the area of forearm.

³⁸ Crum et al.1922: 51–52 (no. 20); Till 1951a: 134.

³⁹ "Wadi Sarga is located in Middle Egypt on the west bank of the Nile 25km south of the contemporary regional capital, Lykopolis (modern Asyut)". O'Connell 2014: 122.

⁴⁰ Crum 1909: 59; Till 1951a: 132.

⁴¹ Papyri.info. [http://papyri.info/dclp/111287], (last accessed: 03.10.2020).

⁴² Till 1951a: 130; Till 1951b: 69–81; Hasitzka 1993: 5–7 (no. 6); Buschhausen, Horak, and Harrauer 1995: 280–281 (no. 300).

⁴³ Weber (et. al.). 1980: 113; Schenke 2002: 101–117.

P.YCtBR inv. 3353:⁴⁴ Papyrus fragment, New Haven, Beinecke Library P.YCtBR 3553, measures 6.7 x 13.8 cm, is dated to the 7th–8th cent. CE. The provenance is unknown, but the title πacon which appears in the text and the *materia medica* indicates that it is from a monastery.

SBKopt. **I 003**:⁴⁵ Papyrus, Vienna, ÖNB, Pap.-Smlg. inv. K 5504, 17 x 7.5 cm, is dated to the 6th–7th cent. CE. The provenance is unknown. It contains a treatment against knocking κωλως, and some components such as white pepper, gum, nut, pistachio, rose apple and honey (see 5.17.6).

2.1.3 SOURCES FROM THE SEVENTH & EIGHTH CENTURIES CE

BKU I 27:⁴⁶ Ostracon, Berlin, Pap.-coll., inv. P4984, 5.5 x 10.5 cm, 7th-8th cent. CE. The provenance is Thebes. The recto and verso both contain ten lines of text, with three incomplete medical recipes.

BKU I 28:⁴⁷ Ostracon, Berlin, coll., inv. P 880, 6,5 x 5 cm, 7th-8th cent. CE. Bought in Thebes in 1859, it contains one medical recipe for spitting blood out of the mouth.

O.Crum 487:⁴⁸ (figure 1),⁴⁹ Ostracon, London, EEF 151, 7.3 x 8.4 cm, 7th-8th cent. CE. Originating in Deir al-Bahari, the ostracon is somehow well preserved. It is inscribed on two sides; the recto contains nine lines, and the verso contains seven lines. Despite the clearly visible black ink, the text is not complete; as the ostracon is broken at the top. The text contains three incomplete medical recipes: the first a drinking remedy (αποτ), which ends with the third line qnamton "he shall relieve"; the second recipe contains some ingredients, that ate mixed with honey, and ends with cenaλo "they will be healed"; and the third recipe contains a dog's substance and other ingredients with πραν νῑc "the name of Jesus".

O.Mon.Epiph. **574**:⁵⁰ Ostracon, inv. no. 12,180.79, measurements unknown, 7th-8th cent. CE. It was found among the stacks of sherds at the monastery of Epiphanius in West Thebes and contains one medical recipe against the sickness of inner organs (bowel) and bleeding.

⁴⁴ Crislip 2006: 165–167.

⁴⁵ Till 1946–7: 43–48; Hasitzka 1993: 3 (no. 3); Buschhausen, Horak, and Harrauer 1995: 280 (no. 299).

⁴⁶ [Erman] 1904: 30; Till 1951a: 113.

⁴⁷ Stern 1878: 16, 20 (no. 8); [Erman] 1904: 31; Till 1951a: 113.

⁴⁸ Crum 1902: 82, (no. 487); Till 1951a: 129 (translation).

⁴⁹ I would like to extend my gratitude to Elisabeth O'Connell for her assistance in attaining the photographs as well as to Chrysi Kotsifou for functioning as a liaison.

⁵⁰ Crum and White 1926: 117; Till 1951a: 129.

O.Mon.Epiph. 575:⁵¹ Ostracon, Cairo formerly Eg. Mus., inv. no. 44674.130, measurements unknown, 7th-8th cent. CE., it was found at the Monastery of Epiphanius in West Thebes and contains one medical recipe against a liver disorder.

O.Brit.Mus.Copt. **I** 49:⁵² Ostracon, London, BM inv. 27422, 7th-8th cent. CE, 21.90 x 14.80 cm. It was found among the stacks of sherds at the Monastery of Epiphanius in West Thebes. On both sides it contains 58 lines in black ink and one medical recipe to treat a swollen eye.

IFAO 13315:⁵³ Ostracon, Cairo, inv. no. 13315, dated to 7th-8th cent. CE. From the Monastery of Elias, West Thebes. It is a catalogue taken from the monastery library, and a "doctors' book" is mentioned on line 36 of the verso.

O.Brit.Mus.Copt. II 37:⁵⁴ Ostracon, London, BM inv. 50216, 10.50 x 13.50 cm, 7th-8th cent. CE. Originating in Deir al-Bahari, it contains four recipes against skin diseases.

SBKopt. II 1043:⁵⁵ Papyrus, Berlin, Pap.-coll. inv. 3262, 9.5 x 8 cm, 7th-8th cent. CE. Originating in Al-Faiyūm, the papyrus preserves a single column with nine lines of clear handwriting. The script is written in Coptic and Greek languages, and preserves ingredients that were used to treat eye diseases.

BKU III 329A:⁵⁶ Papyrus, Berlin, Pap.-coll. inv. 22061, 19 x 16 cm, 7th-8th cent. CE. Its provenance is unknown, and it contains prescription for wounds treatment.

BKU 393:⁵⁷ Papyrus, Berlin, Pap.-coll. inv. 22190, measures 14.5 x 16.5 cm, 7th-8th cent. CE. Its provenance is unknown, and it contains an incomplete medical recipe of various ingredients that are mixed with honey, and then applied upon the diseased area.

⁵¹ Crum and White 1926: 117; Till 1951a: 129.

⁵² Hall 1905: 64–66; Till 1951a: 129.

⁵³ Coquin 1975: 207–239.

⁵⁴ Biedenkopf-Ziehner 2000a: 281–286.

⁵⁵ Stern 1885: 41, (no. 11); Beltz 1978: 91, (no. I 522); Hasitzka 2004: 135–136). Richter mentions that SB Kopt. II 1043 is published by (Buschhausen, Horak, and Harrauer 1995, 280-281, no. 300), but no. 300 corresponds SB Kopt. I 006 not SB Kopt. II 1043. Richter 2014: 190; Richter 2016a: 48.

⁵⁶ Satzinger 1968: 32.

⁵⁷ Satzinger 1968: 125–126.

SBKopt. **I 004**:⁵⁸ Paper, inv. nos. K5506, 16 x 12 cm, dated to 8th cent. CE., the provenance is unknown. The text consists of six incomplete lines and one medical recipe concerning sleeping problems.

O Bachit 1170+1172:⁵⁹ Ostraca, 11,8 x 9,3 cm, unknown date, discovered at Deir el-Bachit (Dra' Abu el-Naga). The ostraca discovered during the joint excavations of the German Institute of Archaeology (DAT) and Egyptological Institute of the LMU Munich at Deir el-Bachit, the largest known late antique Coptic monastery in Western Thebes, dates to between 5th-9th century CE. The excavations have already yielded many important findings, revealing the economic life there.⁶⁰ O Bachit 117+1172 two pieces preserving seven lines are written in black ink, contain a medical recipe concerning a heart condition called † оүгнт ечойверю "Р A heart that is like a whirlpool".

2.1.4 SOURCES DATING TO SUBSEQUENT CENTURIES

Cod.Med.Copt., **p. 214-215**:⁶¹ Parchment leaf, Paris, BN 132,5, fol. 1, 15 x 12 cm, 9th-10th cent. CE. It was discovered at the White Monastery (Deir el-Abiad), and bears the page numbers 214 and 215. It details eleven medical recipes against breast diseases, testicular and penis disorders, and for increasing breast milk production.

CAT. NO. 137 (98:Ms4):⁶² Parchment leaf, 12.4 x 11.5 cm, 9th-10th cent. CE. Originating at the Monastery of St. Antony at the Red sea, it preserves some medical prescriptions in Sahidic Coptic on both sides (flesh and hair sides). The script is divided clearly and some initials punctuation, division marks are written in red ink. It contains a recipe for treating skin diseases, swelling and tumors. The author describes the remedy which may use against swelling, by saying ογμήστηρίον πε αγώ ογώπηρε πε "it is [a] mystery and a wonder".

P.Louvre AF 12530:⁶³ Papyrus strips; Paris, Louvre AF 12530, 90 x 9 cm; 9th–10th cent. CE. Supposedly originating in Sohag.⁶⁴ Its front side (|) contains sixteen recipes and the beginning of a seventeenth; and its back side (-) contains ten more recipes and the continuation of the seventeenth. The inscription of the

⁵⁸ Till 1946–7: 43–48; Till 1951a: 129; Hasitzka 1993: 3 (no. 3); Buschhausen, Horak, and Harrauer 1995, 279–280 (no. 298).

⁵⁹ The ostraca avalaiable online, Koptische Ostraka Online: Koptische nichtliterarische Texte aus dem thebanischen Raum: [https://www.koptolys.gwi.uni-muenchen.de/showOstraka.php?id=497], (last accessed: 30.08.2021).

⁶⁰ Burkard, Mackenzen and Polz 2003: 41—65; Eichner and Fauerbach 2005: 139—52; Burkard and Eichner 2007: 270—274.

⁶¹ Bouriant 1888: 319–320; 374–379; Till 1951a: 112.

⁶² Blid et al. 2016: 191-193.

⁶³ Richter 2014: 154-194 (no. 3).

⁶⁴ Richter 2014: 176.

Louvre papyrus was made by several hands. An accomplished hand wrote the top half of the front side (recto 1-43). The second hand described the remaining part on the front side (recto 44-87, recipes no. 11 to 16) as well as the back (verso 1-91, recipes no. 18 to 27). A third scribe added the prescription no. 17 to the papyrus strip, by filling in the lower margins left out by the scribe of the second hand. This recipe consists of eight lines. In total, the three hands followed the same type of script and inclined uncials. The text is similar to the others sources of the 9th and 10th cent. CE and contains many Arabic and Greek loanwords.

Cod.Med.Copt., **p. 241-244**:⁶⁵ Two parchment leaves, Napoli, BN IB.14.06-07, 30.5 x 23 cm, 9th–10th cent. CE, from Akhmim. Bearing numbers 241-44, it contains forty-five medical recipes against skin diseases such as scabies, psora and itching.

Ch:⁶⁶ Papyrus, Cairo, IFAO, a single roll of 248 x 27 cm, 9th-10th cent. CE. Discovered in Naga al-Meshaikh (45 km south of Sohag), it is the largest medical text that has yet discovered, contains 237 medical recipes for different diseases concerning eyes, stomach, limbs, skin, and teeth. The prescriptions are usually characterised by an ornamented initial at the beginning of a line and a closing sign in the shape of a double circle (⊚).

SBKopt. I 001:⁶⁷ Thick double parchment leaves folded vertically. The single sheet measures 11.51-12 x 12 cm. Its provenance is unknown, and it was brought to Walter Till by Professor L. Th. Lefort. It dates backs to the 10th cent. CE and is well preserved. There are two holes in the fold line indicating that many of these double sheets had been stapled together. The upper edge of the parchment is slightly damaged, but only a single letter is missing. There are two hands, and the back of the second sheet is empty. The front side contains unskilled Greek writing of Psalm 150 1–3; carelessly the writer wrote the script from his memory. The front and back side of the first sheet are clearly written with experienced handwriting. It contains two medical recipes, one of which was applied as a plaster, and the other intended to treat a freshly wounded and injured head.

⁶⁵ Zoega 1810: 629–639; Champollion 1811: 30–34; Dulaurier 1843: 433–452; Champollion 1854: 333–342. Till 1951a: 135–137

⁶⁶ Chassinat 1921; Deiber 1914: 117–121; Till 1951a: 113–129; Schenke 2002: 101–117. According to Till 1951a (Ch).

SBKopt. I 005:⁶⁸ Paper, unknown measurements, 10th-11th cent. CE, unknown provenance. It contains four extensive medical recipes against haemorrhoids, which depending on the human faeces and milk mixed with other ingredients; unfortunately, the last recipe is not entirely legible.

SBKopt. **I 002**:⁶⁹ Paper section, unknown measurements, 10th-11th cent. CE, unknown provenance. The verso contains 5 almost complete lines, and the recto contains 25 lines. The paper encompasses two pharmaceutical recipes (no photo).

P.Ryl.Copt. **108** Ro: ⁷⁰ Parchment fragment, Manchester, John Rylands Library; 6.5 x 8.5 cm, 10th-11th cent. CE. Its provenance is the White Monastery (Deir el-Abiad), and it preserves a medical recipe against an eye disease.

2.1.5 MEDICAL TEXT SOURCES FROM THE ELEVENTH CENTURY

P.Ryl.Copt. **107**:⁷¹ Parchment fragment, Manchester, John Rylands Library, 9 x 4½ cm. Its provenance is the White Monastery, ⁷² and it preserves a recipe against a sickness of the head and eyelids.

BKU I 26:⁷³ Paper, remains of a manuscript in a book, inv. no. P 8116/7, 28 x 29 cm; 14 x 18 cm. Its provenance is Al-Faiyūm and dates back to 11^{th} cent. CE. The manuscript contains medical recipes along with a magical recipe to treat a possessed person.

P.Ryl.Copt. **104**:⁷⁴ Paper, Manchester, John Rylands Library, 19 x 14 cm, 11th cent. CE. Unknown provenance. The paper leaf is incomplete and folded many times to compose of seven parts. It includes *voces magicae* and different spells against fever, for protection against reptile bites, and a prayer to provide protection.

⁷¹ Crum 1909: 59: Till 1951a: 132.

⁶⁸ Turajew 1902; Till 1946–7: 49–54. Till 1951a: 132; Hasitzka 1993: 3–5 (nos. 4–5).

⁶⁹ Munier 1919: 284–286; Chassinat 1950: 9–22.

⁷⁰ Crum 1909: 59.

⁷² Trismegistos. [https://www.trismegistos.org/magic/detail.php?tm=111285], (last accessed: 12. 08. 2016).

⁷³ [Erman] 1904: 26–29 (no. 26).

⁷⁴ Crum 1909: 53–55; Meyer and Smith 1994: 68 (translation, section 4 only); Kropp 1931: 19 (translation, section 4 only), 51 (translation, part 6 only); 52 (translation, part 7 only); Till 1951a: 131.

P.Ryl.Copt. **106**:⁷⁵ Paper, Manchester John Rylands, 25 x 17 cm, 11th cent. CE, unknown provenance. The recto is composed of 29 lines of medical remedies against an unidentified malady, and the verso contains 41 lines to treat a fever.

BKU I 25:⁷⁶ Parchment leaf, Berlin, Pap.-coll. inv. 8109, 18 x 11 cm, unknown date. It includes nine medical recipes concerning sleeping difficulties, blood flowing issues, knocking, and swelling. The medical recipes were also inscribed on the walls of monasteries and provide us with evidence of many remedies. During the excavation of two monasteries following medical recipes were found on the plaster of the walls.

P.Sarga 21:⁷⁷ A *dipint*o on the plastered wall of the Monastery of Apa Thomas where the infirmary of the monastery was located. Taking from Deir el-Gandala near Asyut, it dates back to between the 5th and 7th cent. CE. The text contains nine lines and two medical recipes against fever and cataract.

I.Saqqara 103:⁷⁸ A *dipinto* in black ink on the plastered wall of room 700 D of Monastery of Apa Jeremias Saqqara, which dates back to the 7th cent. CE. It consists of two complete columns at the top and bottom totalling in 17 lines. It contains medical recipes to help with swelling, wounds, and includes figures of snakes⁷⁹ that appear to the sick person.

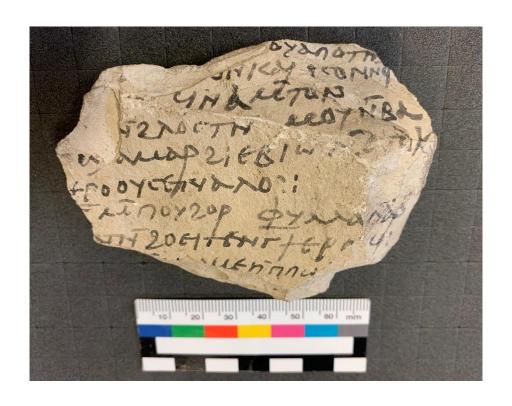
⁷⁵ Crum 1909: 55–59.

⁷⁶ Erman 1904: 24–25 (no. 25).

⁷⁷ Crum et al.1922: 52 (no. 21).

⁷⁸ Thompson in Quibell 1909: 57 (no. 103).

⁷⁹ Citation from Homeric verses (Iliad, III, 33–35). See the discussion in Chapter Six.



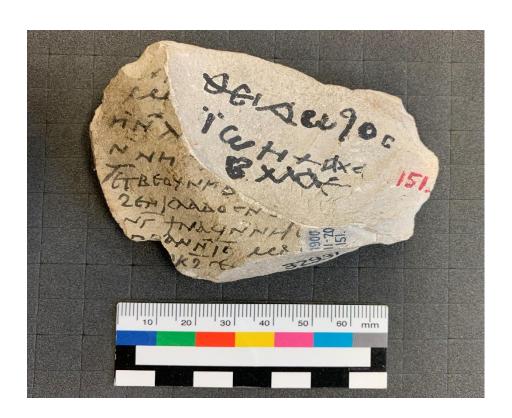


Figure 1. O.Crum 487

2.2 COMPLEMENTARY SOURCES

Miscellaneous secondary sources provide us with information on Coptic medicine including private letters (P.YCtBR inv., 3553), 80 (O.BawitFibourg 55), 81 and official documents and literary texts from early monasticism such as the writings of Pachomius and Shenoute. In addition, excavation work, such as the excavations of the Monastery of Saint Antony at the Red Sea, provide us with medical substances and texts like CAT. NO. 137 (98:Ms4). And excavations of Deir el-Bachit on the hilltop of Dra' Abu el-Naga, Thebes, since 2001 (since 2004 with DFG funding) in cooperation with the DAI Cairo, primarily by a team of the Institutes for Egyptology and Coptic Studies at LMU Munich. The excavations of Deir el-Bachit provide us with a medical recipe for heart condition (i.e. O Bachit 1170+1172). In addition, other Arabic texts that contain references to diseases; including the writings of Arab physicians who were familiar with Coptic, like Abu al-Barakat (d.1363 CE), who recorded a list of 44 herbs in Arabic and Coptic (Brit. Mus. MS. Orient. No. 1325, fol. 117a). 82 All of these sources provide explanations for the use of some medicines to treat diseases that patients encountered in the Coptic period.

2.3 Writing materials:

As a writing material, ostracon, *dipinto*, papyrus, paper, and parchment were used to preserve medical texts. Papyri occupy the first category, of which sixteen out of forty-one items were preserved on papyri, including the largest medical text: papyrus Chassinat. These papyri originated in Upper Egypt, i.e., Naga al-Meshaikh (Sohag), Thebes and also Al-Faiyūm, including other unknown places. Parchment also appears as a favoured type of writing medium for medical prescriptions: nine medical texts were written on parchment. The remaining texts were found in ostracon (seven items), paper (six items), and on walls as *dipinti* (two items).

⁸⁰ A short letter for demanding several items for a sick monk called "brother Paule". Dated to 7th–8th cent. CE., its provenance is unknown. Published by Crislip 2006: 165–167.

⁸¹ Ostracon, 8 x 6 cm, origination from Bawit. This letter contains a request of 4 sacks of seeds, may ne wheat seeds to the infirmirary by Phoibammon the camel driver of the infirmary фоньмисм [пнандамо]үх инстироне. Lopizzo 2016: 64.

⁸² Budge 1996: 80-83.

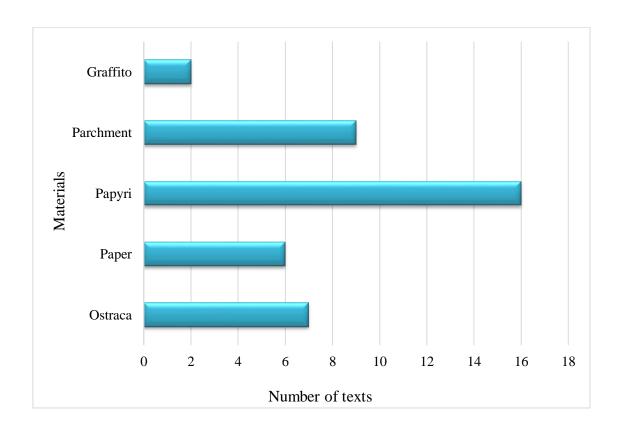


Figure 2. Coptic medical texts corpus by numbers

The majority of texts originating from Thebes, date back to between the 7th and 8th cent. CE, and comprise of eight texts, written on ostracon, and one written on papyrus. Four texts on ostraca are attributed to monasteries (Deir al-Bahari and the Monastery of Epiphanius). The only text on papyrus originating in Thebes, is considered one of the oldest-known Coptic medical texts.

The rest of the texts originated in Asyut and Al-Faiyūm and date back to between the 5th and 7th cent. CE; seven texts presenting medical prescriptions came from varying locations. Six texts written on papyrus and parchment date back to between the 9th and 10th cent. CE; two of them originate in the White Monastery, and presumably belong to its library of the monastery. They may be parts of medical manuals, which were kept in the infirmary of the monastery. Among these texts is the largest medical text, Chassinat papyrus, which dates back to ca. 9th-10th cent. CE, and originates in Naga al-Meshaikh. It is the only medical text that has been preserved in its entirety. From the same period, CAT. NO. 137 (98:Ms4) is considered the only text to come from the Monastery of St. Antony at the Red Sea. There are six texts out of the corpus of medical texts dating back to the late 10th-11th cent. CE, five of which are written on paper

and only one on parchment. This is due to the advent of paper and the subsequent shift to its use in the ninth century, resulting in a declined usage of existing writing materials.⁸³

Two items from the collection are sources of *dipint*o, both of which stem from monasteries: P.Sarga 21 from the Monastery of Apa Thomas at Deir el-Gandala (close to Asyut) and I.Saqqara 103 from the Monastery of Jeremias at Saqqara. Supposedly, these dipinti were painted on the walls of the monastery infirmary. Presumably, they were drawn by the monk in charge or the physician of the monastery. Other explanations also seem possible: he may have liked to have it in front of him in order to memorise it, or he may have wished to save it from destruction. Alternatively, he may have liked to make it visible for the educated visitors of the monastery, so that everyone could read it and apply it in case of illness; especially dipinti concerning prescription for common diseases such as fever, eye diseases and wounds.

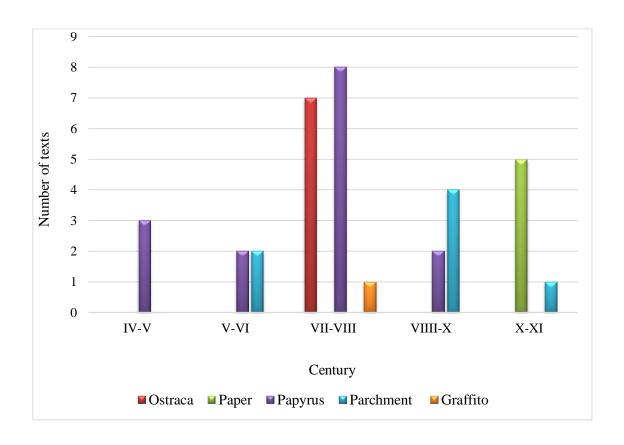


Figure 3. Medical texts by material and Century

⁸³ The commencement of using paper in Egypt was in the 9th century. Egypt brought paper from Syria in the 9th century, and Egypt itself started to produce it locally in at least the 10th century (Bloom 2001: 74).

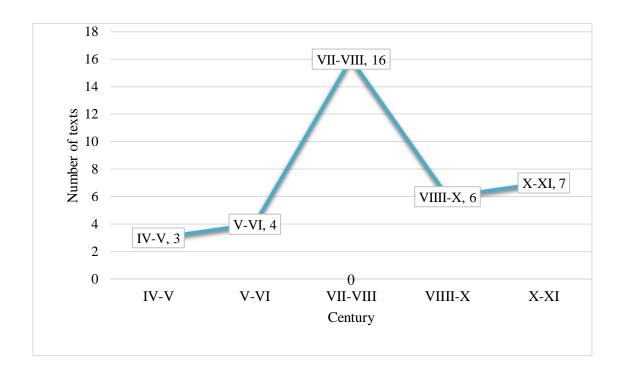


Figure 4. Medical texts by century

2.4 MEDICAL TEXTS BY PROVENANCE

This collection clearly indicates the monastery's role in providing basic medical resources, which constitute nearly a quarter of the entire, and available, medical corpus. Thus, the monastery was considered the central place to provide medical care to treat various types of diseases, even in the gynaecological or paediatric branches.⁸⁴ This proves the extent of services and facilities provided by monastery hospitals, which opened their doors to all people, not only monks or nuns.

Given the contributions of various provenances of the medical texts, I have found that number of texts have been found to have originated in particular monasteries. In fact, illness and health were important essentials in monastic life and occupied a prime part in in ascetic and monastic writings. Eight texts were discovered in Thebes, five of which are attributed to three monasteries: 2 ostraca from the Monastery of Phoibammon (O.Crum 487; O.Brit.Mus.Copt. II 37), 2 ostraca from Monastery of Epiphanius (O.Mon.Epiph. 574; O.Mon.Epiph. 575), and ostraca from Deir el-Bachit (O Bachit 1170+1172). Five medical texts were found in Sohag, three of which are attributed to the White Monastery (P.Ryl.Copt. 108 Ro; Cod.Med.Copt.,pag. 241–244; Cod.Med.Copt.,pag. 214–215).

35

⁸⁴ Cod.Med.Copt., pag. 214–215, from the White Monastery.

Two texts are from Wadi Sarga, one of which (P.Sarga 21) came from the Monastery of Apa Thomas at Deir el-Gandala (near Asyut). As for evidence from Saqqara, two texts (P.Carlsberg 500 and I.Saqqara 103) are attributed to the Monastery of Jeremias. In addition, the medical text (CAT. NO. 137 (98:Ms4)) came from the Monastery of St. Antony near the Red Sea.

This collection clearly indicates the monastery's role in providing basic medical resources, which constitute nearly a quarter of the entire (available) medical corpus. Thus, the monastery was considered the main place that provided medical care for various types of diseases, even in the gynaecological or paediatrics branches.⁸⁵ This proves the extent of services and facilities provided by monasteries' hospitals, which opened their doors to all people, not only to the monks or nuns (see Chapter Eight).

⁸⁵ Cod.Med.Copt., pag. 214–215, from the White Monastery.

Table 1. The corpus of Coptic medical texts assorted by provenance:

Provenance	Number of texts	Monastery provenance
Al-Faiyūm	4	-
Red Sea	1	1
Saqqara	2	2
Sohag	5	3
Thebes	8	5
Wadi Sarga	2	1

Out of the corpus of medical texts, five texts written on parchment bear ordinal page numbers (P.Mich. MS 136, p. 2–14; P.Mich. 593b, p. 167–168; P.Carlsberg 500, p.103–106, 111–114, 135–136; Cod.Med.Copt., p. 214–215). Evidently, these numbers are sections of an entire book, and perhaps the book is divided into parts and each part is for specific medical prescriptions. This type of texts may refer to what was mentioned in the name of "doctors' book", which may have been used as a reference for doctors or as an educational tool, especially since the size of these texts is approximately equal to the palm of a hand.

3. REMEDIES IN COPTIC MEDICINE

They knew how to extract the respective drugs from plants, as well as the knowledge of how to extract mineral substances such as copper, salt and white lead; or even horns, blood, milk, excrement and fat from animals resources. Resources are the medicine to the patient. We have come to an understanding of the various ways in which the ancient Egyptians utilised their pharmaceutical culture as many of their practices were written down. Egyptian physicians utilised 'prescriptions' when administering pharmaceutical drugs to patients. This knowledge was traditionally passed from father to son: coγω νακ παφιμρε "know [it] for you, my son" (Ch 49). In addition to prescribing medical recipes, physicians and herbalists would transcribe every suitable way to prepare remedies, uses and methods, doses of the ingredients, and above all, diseases which could be treated by the remedy. Often, a single remedy could be used to treat a variety of diseases.

Within the recipes, there are many mentioned forms of remedy administration such as oral ingestion in the form of pills, and syrup, internal application or by rectal means as a pessary or paste. External administration involved topical application powders, ointments, poultices and wrappings; and include bathing, or even fumigation (where the woman was required to sit or squat over the remedy), inhalation, or smoking. Drug preparations were usually designated by name in the respective manuscript. Drugs usually included instructions, detailing the appropriate procedure of administration to follow. Greek words such as τροχίζκος, καθαρτικοί "laxatives", κολλίοι "collyrium" καπίνιζε "smoke" were related to classical forms export. Only a few received Coptic wording such as coλ "wick", κρικε "poultice of wool"; caջ "suppository" or the Arabic denominations αςςωσιλ, αρπορώτι , αρπορώτι .89

Instructions on the administration of pharmaceuticals included both the measurements and weight systems that correlated with various drug doses. Doctors realised that when comparing the effectiveness

⁸⁶ Nunn 1996: 145.

⁸⁷ There are many medical texts that have recorded a lot of information concerning the diseases, diagnoses, medical prescriptions and surgical procedures, which were written down on ostraca and medical papyri such as Kahun Papyrus (Griffiths 1898; Quirke 2002), Ramesseum Papyri, Edwin Smith Papyrus (Breasted 1930), Ebers Papyrus (Ebbell 1937; Ghalioungui 1987), Hearst Papyrus (Reisner 1905), London Papyrus (Wreszinski 1912), Berlin Papyrus (Wreszinski 1909), Carlsberg Papyrus (Christiansen/ Ryholt 2016), Chester Beatty Medical Papyrus (Gardiner 1953), and Brooklyn Papyrus (Hayes 1955).

⁸⁸ Ch 15 which recommends a plaster for any disease; Ch 93 which describes a collyrium to treat eye diseases, which may be used for different diseases such as swelling of the body, painful limbs, gout, wounds and for ankylosis Knee and P. Ryl. Copt. 106 which contains a remedy to "clean the mouth of the heart"; to treat head, eye and possibly also for heart conditions. It is also useful for a vigorously body (*papusir*) and to treat all internal complaints.

⁸⁹ Table 2.

related to varying drug doses, certain harms or benefits became apparent. ⁹⁰ These systematic measurements prove that ancient Egyptians realised the relationship between dose and effect. Consequently, they seemed to have understood that some drugs were more effective or apt than others in treating specific diseases. The weight system indicated in the Egyptian recipes belongs to the Greco-Roman metrological system, albeit with slight variations. ⁹¹ Greek weights are often affiliated with currency. Examples of coins that include stipulated amounts of particular metal (silver/gold) include obolo, drachma, and stater.

The purpose of this chapter is to discuss the administration and method of remedies, with more evident details being offered on the various ways in which they were used. In order to facilitate this in the most efficient way, the chapter is divided into the following four groups according to the medical texts that have been handed down:

- 3.1 Oral administration (ingestion).
- 3.2 External and topical application.
- 3.3 Internal application and rectal means.
- 3.4 Inhalation.

Before focusing no these groups, I will discuss the word παρρε "medicament" or "drug", the general term used for remedies, which refers to the finished remedy. It also appears with derivatives and combinations such as pπαρρε "use drugs", "heal", ⁹² and ρεσμπαρρε "drug-maker, magician". ⁹³ The word παρρε derives from the ancient Egyptian noun phrt. ⁹⁴ In Coptic it was usually declined as a masculine word. However, in recipes Ch 17, 117, ⁹⁵ it appears as feminine word, and in SBKopt. I 001 as nutappe, taking the plural form.

Traditionally, the term παρρε was accompanied by various epithets, that referred to the efficiency of the remedy, such as the epithet No6 "great" (Ch 117) (see 9.5). This also appears in other doses of medicine to express that it is a well-known and effective remedy, for example: ογπαρρ ΝΩΣΗΝ ΝΝΟΘ ΝΩΔΙΕ ΚΑΛΏΣ "great (and) very good garlic" (P.Ryl.Copt. 106). Furthermore, the remedy is described using the text ογπαρρε ΝΩΔΙΕ ΚΑΛΏΣ "a very fine medicine" (P.Ryl.Copt. 106), or ογπαρρε ΝΩΠΗΡΕ "a wonderful remedy" (Cod.Med.Copt., p. 242, recipe no. 24). Till of argues that in Chassinat papyrus, it is often said

⁹⁰ Wilsdorf 1974: 89.

⁹¹ Chassinat 1921: 48.

⁹² Crum 1939: 282b.

⁹³ Crum 1939: 282b.

⁹⁴ Černý 1976: 131.

⁹⁵ Till 1951a: 7.

⁹⁶ Till 1951a: 7.

that the effect of the remedy will be miraculous, as in recipe Ch 151- for extracting a tooth (see 5.5.4.) and recipe Ch 222 for treating a pressure ulcer (see 5.16.14). In both recipes, the physician mentions that кнаралире "you will be amazed!", meaning that the doctor tried this recipe and he confident of its success. Another recipe (Ch 65) (see 5.10.2) describes the remedy by referring to its source: equal anaxomme พิทธาง "It is written in the books of the ancients". It is likely that the remedy had been previously tested. Furthermore, some recipes mention the origin of the remedy such as παρρε νεσωφ "Ethiopic remedy" (Ch 38) (see 5.16.2) and (Ch 84) (see 5.6.28).

3.1 ORAL ADMINISTRATION (ingestion)

3.1.1 oynappe ecw

cω "drinking, potation", 97 swr(zwr) > swi . 98 ογπλερε εcω "drinking remedy" was an administrative method, whereby substances were ingested through the mouth in liquid form; this technique is also practiced in modern-day medicine. This form is of medicine was especially prevalent in the remedies given to children. This remedy type is found in Coptic medical texts such as P. Ryl. Copt. 106, 1. 65:

P. Ryl. Copt. 106, ll. 65-71

ОУПАЗРЕ ЕСШ ЗАТАХЗШИМЕ ' ОУСАІПЕ МПОЈОМ S ТЕПРО ОЈХАЕІМ ' АССАӨАР λακ ηθκηκήληση $\bar{\alpha}$ σπούα [0λσ] , θι θεχθισίολ ολοθήσολ δίμοολ nhonady nhex[...] one tack counkin energite nach \cdot kady... hekbo Toyoooye poi nouk eboy be $\bar{\mathbf{b}}$ nalmatkal. Co \mathbf{nequ}_{ν} гароүне аүш \mathbf{neu}_{γ} гафшрп аүш инекергоүо ероч.

A medicine to drink against fever; good in summer and winter: Nasturtium, thyme, lak (part)⁹⁹ of malabaila secacul, one (measure) of each. Throw (them) in. Shake them. Knead them with water Mix it with a jar of cow's milk. Place it (?) to cool and dry. The amount of it to

98 Černý 1976: 147.

⁹⁷ Crum 1939: 318b.

⁹⁹ λωκ, λακ "bowel, cup". Crum 1939: 138a. The word λωκ (λακ) also appears alongside a soft ingredient called "bdellium" in l. 3. Crum translates it into "part". Crum 1909: 55.

be swallowed (?) is 2 *mithkals*. Drink two-thirds thereof in the evening and its (other) third in the morning and you shall not do more. ¹⁰⁰

In addition, the same remedy appears in (P.Louvre AF 12530, ro, II. 44-45) as τπάξρε ε... μυττο "The remedy ... that you give to drink". The recipe recommends giving the patient a combination of myrrh, mastic, opopanax and ammoniac, which should be ingested with honey. Another recipe in the same papyrus (P.Louvre AF 12530 recipe, ro, II. 58-65) recommends a special remedy for every illness consisting of red myrrh, opium juice, pepper, long pepper, cassia cinnamon, water of liquid myrrh and honey, which should be consumed while hot. All aforementioned components belonging to both recipes need to be cooked in a type of fat, hence the use of honey. P.Carlsberg 500¹⁰¹ also recommends a drinking remedy against vomiting: ετβε μιρωμέ καβολ μτεγτροφη πεσιέρημα μτεϊβοτάμη εμθοογ εη[ρ]π ξίεβιω μα[ρεq]ςω qυαλο "For persons who vomit their food: The seed of this herb together with water and wine and honey. Let him drink, he will recover". In addition, Ch 75 prescribes a drinking remedy τοω for the large intestine: ογτοω ετβε πίλος μπάξη "A potion to the large intestine", consists of: myrrh, castoreum, green vitriol, spurge, and honey. The recipe recommends to use the same ingredients without honey as a suppository (see 5.8.3).

3.1.2 трохікос

τροχίσχος τροχίσχος¹⁰² "tablet", "pill" is a term given to drugs composed of various dry substances that are to be crushed and agglutinated into the form of round tablets. Chassinat¹⁰³ argues that: Greek doctors distinguished between three kinds of *trochisque*: those that were administered in the form of drinks (συνόμενοι), given as an injection (ἐνιέμενοι), or applied as an ointment (χαταχριόμενοι). Cod.Med.Copt., p. 214 recommends taking a tablet against painful breasts, which can also be useful for the male human body. The recipe mentions that the pills help to preserve the medicine for a longer period, furthermore, it gives instruction on how to ingest the pills, by dissolving them in egg white (see 5.12.1).

The indicated remedy has to be made in *noumes* and applied, if necessary, with vinegar as shown in (Ch 93) (see 5.6.21). The term νογμές was used by Shenoute as voύμ(μ)ος = (nummus "coin"). The expression τροχίσχος, which literally means "cogwheels", could just as well have been used in a transposed

¹⁰⁰ Translation: Crum 1909: 58–59, with slight modifications.

¹⁰¹ Erichsen 1963: 35. (Recipe codex, fol. C vo p.112, ll. 1–8) (see section 8.3).

¹⁰² Cf. τρόχισκος "small wheel or circle". Liddell/Scott/Jones 1996: 1829a.

¹⁰³ Chassinat 1921: 302–303.

¹⁰⁴ Amélineau, I, 1907: 256, ll. 2–3.

meaning of the word "tablet". The same expression τροχίσκος is used in Ch 209 in a remedy to treat a migraine, this tablet consists of: from pigeon droppings, incense, orpiment, and vinegar (see 5.2.3).

3.1.3 καθαρτικον

καθαριτικοι¹⁰⁶ "Laxatives" appears as καθαρισμός, καθαρισμός¹⁰⁷ in Chassinat Papyrus recipe (Ch 74), and consists of one ounce of pepper, watercress seed, scammony and eight ounces of natron and spurge, which are to be crushed well and mixed with honey (see 5.8.2). The patient should drink it according to his strength, the gas will go from top to bottom, as the recipe states. The remedy also appears in (P.Mich. 593b, vo, Il. 5-20), and consists of a cooked salted dove, a little pepper, wine, genuine oil, and water. The patient should then proceed to follow up this recipe by drinking a small amount of stale wine and as the recipe declares "in a little while you will purge":

P. Mich. 593b, p. 168 vo, ll. 5-20

оүкаөартікон ді йоубромпе йгмоуг пецса игоун ми паотц гі йміс йи оүкоуї йпппер ауш оуаө йнріп йи оукоуї ймег мме йи оукоуї ммооу [йг π]а \overline{c} т \overline{q} йг [...]м[и й]с \overline{u} с йгс \overline{u} оукої йнріп ецвав \overline{u} йоуфни фак каөаріге

A purgative: Take a dove, and fill its inside with salt and...., together with....And a little pepper, then a quantity of wine and a little genuine oil, and a little while you will purge. 108

3.2 EXTERNAL AND TOPICAL APPLICATION

3.2.1 κολλιοη

¹⁰⁵ Till 1951a:10.

¹⁰⁶ Cf. καθαρτικός "fit for cleansing or purifying; promoting, purgative". Liddell/Scott/Jones 1996: 851a-b.

¹⁰⁷ Cf. καθαρισμός "cleansing, purification, purificatory offering". Liddell/Scott/Jones 1996: 850a.

¹⁰⁸ Translation: Worrell 1935: 191, with slight modifications.

κολλιον, κολλύσιον¹⁰⁹ "collyrium", is the most common type of remedies attested in Coptic medical texts such as Chassinat Papyrus, SBKopt I 006, SBKopt. I 004 and P.TT157-470.¹¹⁰ This type of remedy was particularly used for treating eye diseases. Many variants of these words are documented in Chassinat Papyrus such as κολλιον, and also in the abbreviated form κοχ or ...

Collyrium was consistently used in liquid form (installation). It is noteworthy that, the collyrium was, not only used for eye diseases, but it was also administered as a laxative (Ch 76); as a remedy against intestinal worms (Ch 112) to treat Νλω cNοq; ΝλλCNοq "blood-stilling" (haemostasis) (Ch 40, Ch 137); and, in addition, to treat rheumatism (P.TT157-470, col. x+i 8-9, P. Carlsberg 500). ¹¹¹ In most cases, collyrium was used for ophthalmic purposes. ¹¹²

The effectiveness of a collyrium remedy was reported by using various epithets such as the general epithet nog "great" (Ch 112, Ch 122)¹¹³ or even the Greek term enanoyc "good" (Ch 51, Ch 94). In addition, the Greek attribute καλον is used as an epithet, like κοληριον καλον "good collyrium" P.TT157-470 col. I ll. 12–13; and ογκολλιον καλον νέερκεςτατον "a good (and) very effective (ἐνεργέστατον) collyrium" (Ch 210). In the latter, the scribe used two Greek epithets in the same recipe. In some recipes, the epithet was partly Coptic: such as ενανογά εματε "very good", which appears in a text from Thebes (P.TT157-470, col. X+i 4).¹¹⁴

Furthermore, collyriums were also administered through the act of sprinkling: σωαρσεω "sprinkling, dripping" or "dripping collyrium" (Ch 59, Ch 77, and Ch 236). Similarly, ογκολλιον νπιρικι ςαβολ "external anointing-collyrium" literally means "eye drops to spread (σεριχέιν) outside" (Ch 191). Two recipes (Ch 39 and Ch 211) mention a special type of collyrium used for just one day: ογκολλιον μονογμέρον, κολλύριον μονογμέρον "A one-day collyrium". Till¹¹⁵ states that "The epithet μονογμέρον perhaps say that it must be used on the same day on which it is prepared". The one-day collyriums also appeared in Greek medical prescriptions. Maravela-Solbakk¹¹⁶ argues that the earliest evidence appears in the fourth book of Galen's *Comp. sec. loc.* in the treatment of a particular ὀφθαλμία¹¹⁷ (XII 711.6–15 K).

Some recipes used a special type of collyrium that related to its origin such as персі (فرسى) "Persian" in (Ch 92), and еqнп егромн "from Rome," literally means "it belongs to Rome" in (Ch 221). Another type

¹⁰⁹ Cf. κολλύριον "pessary, eye-drops, eye-salve". Liddell/Scott 1996: 972b.

¹¹⁰ Richter 2014: 154.

¹¹¹ Erichsen 1963: 38. (Recipe codex, fol. F ro &V vo p.136).

¹¹² Till 1951a: 8

¹¹³ In Ch 122 the physician emphasized the strength of the effectiveness of the collyrium using the exceptional expression: ογνος τε τεσσομ "its power is great".

¹¹⁴ Richter 2014: 161.

¹¹⁵ Till 1951a: 8.

¹¹⁶ Maravela-Solbakk 2009: 114.

¹¹⁷ Crislip 2006: 165. A Greek medical term used in many Coptic recipes, it refers to all eye inflammation. Ophthalmological treatments considered the most important part of Coptic medicine, since the wide range of Coptic medicine about ophthalmology. It appeared in medical papyrus from Thebes P.TT157-470 (col. i, [20]; col. i, 6), is dated to the 4th_5th Century.

of collyrium used for eye rheumatism was κολημιον κλημακίον "Klêmakion-Collyrium" and appears in (P.TT157-470, col. I, l. 16). 118

Two particular collyriums can be traced back to persons who appear to be doctors. The first is ογκολλιον ντε απα κγλιλος προφος ναρχηματρος "A collyrium of the wise physician Apa Kyrillos" (Ch 56); and the second one is ογκολλιον μονοςγμέρον κολλογθός αρχηματρός κα μαρτάρος "A one-day collyrium of the chief physician and martyr Kolluthus" (Ch 211).

After examining the recipes that recommend collyrium as a remedy, I have found that the *materia medica* was almost exclusively made up of reiterated ingredients. For example, cadmium, opium, copper, pepper and gum, which were used in different quantities, were considered to be the major ingredients of each collyrium.

 $3.2.2 \cos \cos \cos^{119}$

Gogge ("sprinkling" was an instillation for the eyes, which may have been a duplicate of Gogg, the ancient Egyptian word ("S) (120 It is a liquid remedy that was mainly applied to the eyes is prescribed in three recipes: Gogge ερογν in (Ch 59) meaning "Internal sprinkling", and which gives the same sense as χολλύριον (a meaning that is more clear in the following two recipes): Gogge εβαλ αλρογν (Ch 77); and κολλιον νέσωρσεφ (Ch 236), so it as an eye drop that was introduced into the eye:

Ch 59

(120) омеос йошфоеф егоүн катмас үмнөнөн хахаканө комеос $\$ й епоүа ааү $\$ хрш

(120) Likewise: For internal instillation: Cadmia, white lead, opium, myrrh, blue vitriol, gum, eight drachmas each; make them a collyrium; apply. 121

Ch 77

(154) оубшубеў епвах сагоун ұімініоу » ā халкос » в опіон » ā өнооу аау йік хрш

¹¹⁸ Richter 2014: 159.

¹¹⁹ Chassinat 1921: 170. ش scala n° 44 (fol. 17).

¹²⁰ Černý 1976: 339.

¹²¹ English translation by me based on the French translation by Chassinat 1921: 170.

(154) Instillation for (inward) the eye: White lead one drachma, copper two drachmas, opium one drachma; crush them; make them a collyrium; apply. 122

Ch 236

(619) ουκολλίου νέωφεω κατήρο (cif) οπίου αρήφε χήθος δ α επούα θνοού αλύ δ χρω

(619) Collyrium for instillation: Cadmia, white lead, opium, myrrh, tragacanth, gum, one drachma of each; crush them; make them a collyrium; apply. 123

3.2.3 zypon

Σγρον ξηρόν means "powder" (adjective "dry"). This type of remedy was often used externally and abbreviated to Σγρ and Σρ. It was mainly used to treat eye diseases; however, it was also used for skin diseases (Ch 121), for toothache (Ch 178) and as an astringent remedy (Ch 174, Ch 183). The following epithets were used for Σγρον: the most common was ενανογα "good" (Ch 5, Ch 11, Ch 41, and Ch 49), and νανογα καλώς "very good" (Ch 45). It could be also more accurate, and as Ch 49, which mentioned the exact use of the powder "for eye". Or even by describing the exact use of this good powder as in Ch 87 ογΣγρον ενανογα ευσώνε νιμα ετεν νιβαλ "a good powder for all eye diseases, that are in the eyes", which is definitely used against cataract and blot "internal diseases" (see 5.6.6). Ch 142 prescribes a good powder for skin disease: ογΣγρον ενανογα ετβε τνιμες "A good powder for abscess" (see 5.16.21):

Ch 49

(92) оүҳүрөн енаноүч епвах сінбіпіх 124 $_{2}$ гоухінбан 125 $_{3}$ кахичоүр 126 $_{4}$ соумпоүх 128 $_{5}$ $_{5}$ $_{6}$ (93) епоуа өнооч кахфс $_{7}$ врвк йсфч ий z ексфи

¹²² Author's own translation.

¹²³ Author's own translation.

¹²⁴ Arabic *zanjabīl* زَنْجَبيل. It is found also in Ch 11 and Ch 12.

¹²⁵ Arabic kūlanjān خُولَئْجَان. Chassinat 1921: 155.

أَدُونُونُ Arabic *qaranful* قَرَنْفُل. Chassinat 1921: 155.

¹²⁷ It is Arabic conjunction means "and", here the author preferred to use it instead of the other usual conjunctions μ̄ν or χι, which used in the other recipes. So, this recipe is a unique example of a linguistic switch between Coptic and Arabic in Coptic medical texts, since he writes \mathfrak{z} in Arabic script between Arabic ingredients in Coptic script.

¹²⁸ Arabic Sonbol سُنْبُل Chassinat 1921: 155.

ероц ймние мийсшс каац (94) тециооує өноц фуд тушв нак йунт \bar{q} йфф \bar{q} түш поуує соу \bar{u} нак пафнре \bar{u}

(92) A good powder for the eye: Ginger, galangal, cloves, spikenard, one drachma (93) of each of them; grind well; add wine for seven days, and stirring every day, then leave (94) to dry; grind it (again). It will work for you by itself morning and evening: (it is) wheat for you, O my son!¹³⁰

Ch 45

(82) оүзүрөн енвал наноүч калшс фе†нег аклина 131 расаре харкос лоүлоү 132 х $_{x}$ (83) наркафіне 133 песед роунпа фенк 134 оүф[і епо]үа өнөөү калшс аау йзүрөн хрш

(82) A very good powder for the eyes: Hematite, gold cadmium, silphium (?), Copper, pearl, verdet, (83) pyrite, coral, styrax (?), shell, same weight of each; grind them well; make them powder; apply.

The powder usually consisted of starch, camphor, Indian nard, myrrh, aloe and antimony in varying quantities. After initial grinding of existing ingredients, opium was sometimes added to be used as a remedy for eye diseases. Medical recipes contained different types of powder.

четом чтехартом was a specific type of powder called техартом; тахартом, literary meaning "made from papyrus" as in Ch 121 (see 7.1.2), and Ch 178 (see 5.5.1).

¹³⁰ English translation by me of the French translation by Chassinat 1921: 155.

¹²⁹ I assume that it means "Know (it) to you my son!".

¹³² λογλογ, Arabic لوك . Chassinat argues that pearls are often used in eye remedies among the Arabs. Chassinat 1921: 152.

Another type of pearls λογλογ κατσωτές "unpierceable pearl" اللوك غير المثقوب appears in P. Louvre AF 12530, recipe no. 20 (see 5.6.6).

¹³³ маркафює, Arabic *marqāšita* مَرْقَشيتا. "marcasite/ pyrite" Chassinat 1921: 152.

يناغ عود "shell". شَنْج "shell".

¹³⁵ τιαχαρτου, διά χάρτου, Abd ar-Razzaq (p. 133) said that 'ڤرطاس' (χάρτης) is Egyptian paper made from papyrus א. Also, in Ch165, for 'Hieratic papyri' χαρτης κριερατικον. Ραρτης, Arabic ورق الكتابه . Chassinat 1921: 242.

сисе каλамие is a special powder called ογεγρον εγνογτε εροц же ογсисе каλамие "A powder called Sise kalamie" (Ch 12) (see 5.6.5). The word сисе is may derive from the Arabic word ويومنة meaning "fort, citadel, rampart". This kind of powder is described only in Chassinat Papyrus, and it was used for treating all eyes diseases and cataract. Moreover, it was very effective according to the following description of a physician.

καλιβλέφαρον¹³⁸ kalliblepharon is a special type of "eye cosmetic powder", which appears in Ch 102 (see 5.6.1), Ch 103, and Ch 105, or as καλιβλέφαρον in Ch 104, and is described as χγρον ενένογα καλως καλιβλέφαλον "very good powder kalliblepharon". Composed of cadmia, white vitriol, copper, and other various components mixed with water from the cistern, it was used for treating diverse eye diseases. Chassinat papyrus dedicated four consecutive recipes (Ch 102-105) to the "kalliblépharon powder", and each recipe describes it with the epithet "good" or "very good":

Ch 103

(205) A very good kalliblépharon powder: Antimony eight drachmas, saffron one drachma, burnt copper (206) twenty drachmas; Indian nard a fresh white vitriol drachma a drachma; grind them well; sift them; (207) add water to them in a mortar for seven days, and mix them every day; let them dry; (208) pound them; make them powder; and apply. The water that you give is cistern water. ¹⁴⁰

¹³⁶ Perseus Digital Library.

[[]http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A2002.02.0028%3Aentry%3DSiySaA%3D%27N], (last accessed: 01.01.2020).

¹³⁷ Chassinat 1921: 91.

¹³⁸ "It is found in ORIBASIUS, Euporistes, IV, 26, t. V, P.715, and PLINY, XXI, 73, 2; XXVIII, 67, 2." Chassinat 1921: 219.

¹³⁹ Χεχαύμενης, Arabic نحاس محرق. Chassinat 1921: 191.

¹⁴⁰ English translation by me of the French translation by Chassinat 1921: 222.

Ch 104

(209) оүзүрөн калівлефарон кадміас f каүменоү f \bar{a} пеплимиенис f \bar{a} (210) аммюніакоү f \bar{a} ын f \bar{a} крюс f \bar{a} оіноү калоү f f (sic) \bar{e} өнөөү калос (211) f мөөү \bar{n} вх йсшоү ааү йзүрөн \bar{x} р \bar{x}

(209) A kalliblépharon powder: Calcined and washed cadmium four drachmas, (210) ammonia gum four drachmas, pepper four drachmas, saffron four drachmas, good wine five ounces; grind them well; (211) add water from cistern; make them powder; apply.¹⁴¹

Ch 105¹⁴²

(212) оүзүрөн калівлефалон енаноүч калшс ефшне нім ет \overline{n} нвал (213) катніас у каүменоу харкос оісон тин катніас шптисан діа мерітос (214) каі леіа тас весон оінш вал тріве миооу ан генітаі анелоненос 143 хрш

(212) A kalliblépharon powder very good for any eye disease: (213) Calcined cadmium, copper; reduce the toasted cadmium into pieces (214) and dry the..... (?) in wine; pour (into a mortar); rub them again until it is dissolved; apply. 144

3.2.4 **THZINON**

πιτείνου, *Pyxinum*, "boxwood ointment" is known as a remedy that was used to treat the diseases of the eye. It appears in (SBKopt. I 006) and is probably πύξινον (κολλύριον). The Greek πυξίς (*Latin*: *pyxis*) means

¹⁴¹ English translation by me of the French translation by Chassinat 1921: 223.

¹⁴² Chassinat assumes that this recipe is completely Greek, the portion of the preserved text in its original form seems to have to be transcribed as follows: Καδμείας κεκαυμένης, χαλκοῦ οἶσον τὴν καδμεὶαν ὀπ.ήσαν διὰ μερίδος καί λεῖα τὰς Βεσον οἴνῷ βάλε, τρίδε μιμοογ (ἔως) ἄν γένηται ἀναλύομενος. χρῶ. Chassinat 1921: 225.

¹⁴³ ανελομενος, ἀναλύομενος. Chassinat 1921: 363.

¹⁴⁴ English translation by me of the French translation by Chassinat 1921: 225.

a small round box. It was named after the boxwood, i.e., the wood of the πόξος (*Latin: Buxus sempervirens*):¹⁴⁵

SBKopt. I 006, l. 49-52

```
]o..t. пнимом прос[ ] taj bad пе мм пе..[ ]apakac го ā кроко . [ ] го ā піпершс го а . [ .... boxwood ointment for eye it is and the ... one ounce saffron, one-ounce pepper... 146
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It seems that this type of ointment i.e. πηξίνον, was well known and required, from the contents of the damaged ostracon O.Vind.Copt. 209,¹⁴⁷ the sender has asked the recipient to send him πεξίνι. Unfortunately, the contents are not clear, but it seems that it was a ready-to-use remedy, so he asked him to send it along with the other stuff: παρακα]λει μποκ μοερμογς¹⁴⁸ .. μτ πεξίνι. We can read that he asked him also to send θερμογς "lupine", which used for haemorrhoid in SBKopt I 005 (see 5.10.1).

3.2.5 пластрон

ἔμπλαστρον "pavement, plaster", is similar to our modern concept of plaster as it was applied to the body in order to stimulate healing. This type of remedy was mostly used to treat wounds and skin diseases. In ancient times it was used to protect the site of the wound from infection and bacteria by using oil. This invention was passed onto the Coptic medical recipes, which reported to mix oil with the other ingredients as it prevented bacteria from spreading. 149

Furthermore, it was also used for internal organs, and the stomach in (Ch 72), and for the spleen in (P.Mich. MS 136, Il. 35-38). However, there is uncommon use of a $\xi\mu\pi\lambda\alpha\sigma\tau\varrho\sigma\nu$ is found as a remedy against eye diseases (Ch 20).

The adherent plasters usually consisted of predominantly resinous substances like: spruce resin, incense, mastic, pitch, styrax, asphalt and rosin, which mixed with wax and various types of fats and oils. In addition, other substances were added, especially white lead, green span, lead, vinegar, wine, galbanum,

¹⁴⁵ Bonati 2016: 126.

¹⁴⁶ Author's own translation.

¹⁴⁷ Ostracon, 9.5 x 4.5 cm, dates to the 8th cent. CE. Till 1960: 51; Till 1951: 10; Buschhausen, Horak, and Harrauer 1995: 279 (no. 297).

¹⁴⁸ It appears as өҳрмоүс in SBKopt I 005.

¹⁴⁹ Shah 2012: 65.

copper, salt and flour. All substances were well boiled until they became thick enough to take the shape of plaster which could then be easily applied upon the sick area or wound. ¹⁵⁰

A specific type of plaster called χωρα, χώρα "country", appears in (Ch 67 and Ch 119) as νπραστρον νχωρα "the plaster of the country". Its name indicates its Egyptian origin, which of course makes it different from its foreign counterpart. Plasters could be distinguished by their colour, καμε, κημε "black" (Ch 149, P.Louvre AF 12530 recipe no. 18), 151 and ογβαφ "white" (Ch 187), 152 and most likely χρεγρον= (χλεγρον) χλωρόν "green" (Ch 132):

Ch 132

(273) ουνπλάςτρον χρεύρον καλαφονίας $\mathbf{F} \times_{\mathbf{X}} \mathbf{F} = \mathbf{\bar{c}}$ α μούλας $\mathbf{F} \cdot \mathbf{\bar{c}}$ κηνής νρώς τη παστού χρω

(273) Green plaster: Rosin six ounce, green one ounce, wax three ounces, pork fat three ounces; cook them; apply.

Epithets commonly used to describe the plaster's effect were: ενανογε "good" (Ch 232), ¹⁵⁴ докімоν δόχιμον "proved, tested" (P.Mich. MS 136, 1. 35), ¹⁵⁵ and соєт "famous" (Ch 149).

3.2.6 катапласма

καταπλασμα, κατάπλασμα¹⁵⁶ means "plaster, poultice". This remedy appears in three recipes (Ch 70, Ch 72 and Ch 73) to treat stomach problems. In Ch 70 (see 5.7.1), the poultice is made up of sponges soaked in hot vinegar and ivy leaves. In Ch 72 (see 5.7.1), the poultice consists of three ounces wax, one ounce mastic, one ounce rosin, one ounce ceruse and one ounce styrax, which is to be mixed, cooked and then applied as a poultice. In Ch 73, it consists of two ounces crushed dates, eight ounces cucumber flour, two ounces styrax, one ounce mastic, one ounce fresh rue and one ounce saffron; which should be mixed with wine, and cooked until the appropriate consistency and then applied as a poultice (see 5.7.1).

3.2.7 ςπελελιν

¹⁵⁰ Till 1951a: 9.

¹⁵¹ (See 5.16.1).

¹⁵² (See 5.17.2).

¹⁵³ Chassinat 1921: 261.

¹⁵⁴ (See 5.17.2.2).

¹⁵⁵ This recipe recommended a plaster for spleen disorders consisting of: Flower of barely, swine fat, acrid vinegar and salt.

¹⁵⁶ Liddell/Scott/Jones 1996: 905b.

спедедим means "compress, poultice", 157 and also appears as спдндим and in Demotic script as אַרָּהְלּאוּע מּלְ

splitm. 158 Till 159 assumes that it stems from the Greek word σπληνίον "poultice". Some of the recipes explain the methods of application such as (Cod.Med.Copt., p.244, recipe no. 37) used to treat warts, which recommends to take burnt barley, ivy, cooked lentils, mix them with milk, and to put it in a cloth, and smear it as an envelope on the belly: καταπλασσε μμος νογοπελελιν είχν εμτς "smear it as a poultice on his belly". And, (P.Mich. 593b) includes that: καας είχωος νισταμαίν "put it upon bandages" without any indication to the ingredients used":

Cod.Med.Copt., p.244, recipe no. 37

кеоүа он. I свраку күса $/\!\!/$ міас ана. θ нооү, ахамване миооү ξ ерште, ноху еүтоеіс игхшун ноуаршін игкатапхассе миоу ноуспехехін ξіхи ξнту.

Again another one: Roasted barely, and *Kysamias* in equal parts. Crush them, mix them with milk, put it in a rag, boil a lentil, and apply it on his belly as a poultice. ¹⁶⁰

P.Mich. 593b, ro ll. 1-10

 \bar{H} αγνίκα τοκέ \bar{Q} ηγκαλός είχωου νέπλημαιν \bar{H} ηγεθόλ \bar{C} εβολ είτη ουκωετ είδωμαι 161 ης χρώ μπος προς μπα εττάναθεραπεύε μποού,

Or something has pierced him: Place it upon poultices, or melt it by a quenched fire, and apply it to the places which you are about to treat. ¹⁶²

3.2.8 coλ

coλ means "wick", †λαμ in Bohairic and in Arabic الفتيله. 163 It is in a very small envelope that absorbs liquids, which is pre-soaked a little bit in the remedy. coλ has the meaning of *linus*, more often as the

¹⁵⁷ Crum 1939: 351b.

¹⁵⁸ Černý 1976: 159.

¹⁵⁹ Till 1951a: 9.

¹⁶⁰ Author's own translation.

¹⁶¹ According to Worrell одын is for оды. Worrell 1939: 188.

¹⁶² Translation: Worrell 1935: 190, with slight modifications.

¹⁶³ Chassinat 1921: 129.

Demotic wick". ¹⁶⁴ In Greek medicine it corresponds to the Greek word ἐλλύχνιον *ellychnium*, which is a kind of bandages used to treat wound was wick like today, by draining the abscesses, and anal fistulae. ¹⁶⁵ The same concept is found in Coptic medical recipes. coλ was usually applied to abscesses (Ch 25, Ch 26) and to a certain disease of the anus (Ch 55). It was not only used for the absorption of liquid or paste-like remedies as shown in (Ch 25, Ch 55), but also for the application of powdered medicaments (Ch 26): ¹⁶⁶

Ch 25

(51) [An absc]ess, so that it plucked out: Blue vitriol four drachmas, white vitriol four drachmas, copper scales four drachmas, gum four drachmas, (52) diphryges four drachmas; crush them with vinegar; make them a wick; apply them, it will be plucked out. 169

Ch 26

(53) оүмнге 170 гл йвах й гл псфиа йпрфие діа тоудоу фімівіоу стептеріас місеос (54) кеннавереос ектибл кеннавереос † пемехане епечна внооу гі гнях кач (55) гл при й і ніл йсфс ліг внооу он ліг таач йхүрон еїє ліг аач йсох йтбот (56) йпфі йтмиге † епесит єрос еффпе асфск снар й ў йтесхо еффпе йпесфск (57) снар й і еї епегоуо енаі тесеі єграі анхонтс гар анбинтс йме екфан† єрос снаєї мауас

¹⁶⁴ Černý 1976: 151.

¹⁶⁵ Folk medicine in Egypt.

¹⁶⁶ Chassinat 1921:130.

¹⁶⁷ Cf. πορκ "be plucked out", "destroyed", Arabic: تتقلع. Crum 1939: 268b.

¹⁶⁸ Δοφργιος is for διφρυγές diphryges "This name was given to the residue that remained in the bottom of copper furnaces after the metal had melted." Chassinat1921: 129.

¹⁶⁹ Author's own translation.

¹⁷⁰ Сf. маг, мааг "tumor, abscess". Crum 1939: 211а.

(53) An abscess in the eyes or on the man's penis, for that: White lead, alum, yellow vitriol (54) cinnabar; if you have not cinnabar, put ink instead. Crush them with vinegar; leave it (55) in sun for three days and then crush them again; make powder or a wick of (56) the size of the abscess, and put it on. If slow, it will remain sixty days to heal; if it heals soon (57), it will after ten days or more rise up. We have tried it and found it genuine. If you use to it (abscess), it will go away by itself. ¹⁷¹

Ch 55

(109) A wick for the anus that rots: Sulfide arsenic twenty drachmas (?) gum ammoniac one drachma, sarcocolla one drachma, calcined soda two drachmas; crush them (110) knead them with water; make them into a wick, and introduce it into the anus. It will bring down the corrupt flesh and¹⁷⁶

3.2.9 діагротон

Διαρροτοι διάρροδον "diarrodon; a remedy made of roses", 177 etymologically derives from the Greek word διαρροδον: the Greek prefix δια "dia", followed by the root word ροδον "rhodon" meaning pink. 178

¹⁷¹ English translation by me of the French translation by Chassinat 1921: 130, with slight modifications.

¹⁷² യൂഷ്, شحم Chassinat 1921: 163.

رُشُق (شُعَق Chassinat 1921: 165. دُشُق (شُعَق Chassinat 1921: 165.

عُذْرُوت Ancapoo, from Arabic anzarout عُذْرُوت. Chassinat 1921: 166.

الْخَةِ 175 مهجه according to the transcript mode adopted by the author (e = cor ż), this word can be one of two forms as follows: الْخُهُ have fever or الْخُامُ "corrupted flesh, flesh off a bad smell due to putrefaction". The title of the formula shows that we must choose the second. This is a case of gangrene of the anus, and in medication aims to bring down bedsores. Chassinat 1921: 166

¹⁷⁶ English translation by me of the French translation by Chassinat 1921: 162–163.

¹⁷⁷ Cf. дыгрофон Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C8771], (last accessed: 13.10.2020).

¹⁷⁸ Definiciona. [https://definiciona.com/diarrodon/], (last accessed: 20.08.2019).

διάρροδον is a medicinal product (collyrium) prepared with roses: "The wonderful rose collyrium that I worked" (Ch 134). It can also be found in Greek medicine as well, Malapani¹⁷⁹ argues that: "The first prescription is mentioned the so-called *diarrodon collyrion* (διάρροδον κολλύριον) is in Oribasius (πρὸς περιωδυνίας, φλυκταίνας, ἐπικαύματα, σταφυλώματα ... Syn. Eust., 3.158) and the second in Aetius Amide (*Iatr.*, 7.110). This drug considered appropriate for the treatment of tough soreness, pustules, burns and ailments of the cornea and other problems of the eyes". Rose oil was also widely used in the medical recipes, especially to treat eye diseases, abscess, ulcers and psora.

Ch 134

(275) діагро†он есгафінре віргшв йгнт \bar{q} оүн \bar{p} т ецанк \hbar хаакос кекаүменоү \hbar $\bar{\lambda}$ (276) комеос \hbar д н \bar{p} п йамінеон 180 пецрафе \bar{e} ый петоуот \bar{q} епаі ймо $\delta\bar{\gamma}$

(275) Wonderful rose eye drops I worked on it: Fresh rose thirty drachmas, burnt copper thirty drachmas, (276) gum four drachmas, sufficient amount of aminaion wine to which no water poured. ¹⁸¹

3.2.10 ekzwta

The word exacts is borrowed from the Greek term $\xi\xi\omega\theta\epsilon v^{182}$ and implies an externally applied remedy. ¹⁸³ It appears in (Ch 6), where it is applied as an external remedy for eyes that do not have eyelashes exacts enbal "external (use) to eyes". The doctor mentions that "it has been experienced by ourselves". It consists of aloes, one scruple from starch, camphor, myrrh and antimony. The recipe recommends to ground these components into a powder in order for the eyes to heal (see 5.6.2.1).

3.2.11 српорот

арпюрют "cooling agent", is of Arabic origin البرود and is a term denoting a form of softening eye drops used to eye diseases. After mixing it with ten drachmas from hematite, and one drachma from saffron, the remedy is ready to be used:

¹⁷⁹ Malapani 2014: 4.

¹⁸⁰ Cf. εμινεον, ἀμιναῖος "Aminaion, Italian." Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C8210], (last accessed: 14.10.2020).

¹⁸¹ English translation by me of the French translation by Chassinat 1921: 262.

¹⁸² Chassinat 1921: 62.

¹⁸³ Chassinat 1921: 62.

Ch 44

(81) оуарпфр ω^{184} енвал етф йкфет фе†нег \r ї полп χ^{185} \r а өнооу калфс алу йзурон хрф

(81) A refreshing collyrium for eyes that are suffering from inflammation: Hematite ten drachmas, saffron drachma; crush them well; make it powder; apply.¹⁸⁶

3.2.12 αιοογη

cιοογν "bath", Demotic s(t)-in "bath-bath-tax". It seems that cιοογν is formed from the words ce- (or ci-) "seat, place" and αγειν (or ογειν) "water-channel". ¹⁸⁷ Cιοογν was a more frequently used method of medical treatment, ¹⁸⁸ which was particularly useful in treating all kinds of skin diseases:

Ch 161

(316) องรงนห พีท **องร์เอ**ร์ รูอดีพ сорนี ที่ฉกาลс тагоц ที่เบื่อรูก พีทพิ่ดเนิด канарон हा รูรกิ (317) हा внале йсооуге हा иег ие епгае цітц етсіоуне ецнало \odot

(316) A nail and a prurigo: Natron, old vinegar dregs; first rub him (the patient); then clean with wine, (317) yellow of egg and fine oil; finally take him to the bath; he will be healed. 189

¹⁸⁵ πολπχ, κλοκογ (κροκογ), χρόκος. Chassinat 1921: 150.

¹⁸⁶ Author's own translation.

¹⁸⁷ Černý 1976: 168.

¹⁸⁸ βαλαυειον, λαυτρου, πριβατου. Crum 1939: 369b.

¹⁸⁹ English translation by me of the French translation by Chassinat 1921:150.

Also, in Cod.Med.Copt., p. 241, recipe no. 11

етве не ψ шра.
 гаси наравікши ин оушт ирір өнооу ин неуєрну, тш
гс епетшшне ги тсілоун

For the psora (pl.): Arabic natron and pork fat rub together, anoint the sick in the bath. 190

Cod.Med.Copt., p. 241, recipe no. 12

Keoya. Moyaz, aam
xatt eqeon, zacm, ohn ana. xp ϖ

Another (remedy): Wax, soft pitch, baking soda, sulfur. Apply. 191

Cod.Med.Copt., p. 242, recipe no. 15

екфанхі ноугасм итеракоте ми оухіванос 192 ми оуони натффи, игталооу гі гхм гі євіф ми оукоуї ммоулг, игволчевол иммау иг \dagger нег ихаменелфи єроч, наі тнроу тагоу ми неуєрну иг \dagger єроч ги тсіооуи, чиало

If you take a soda from Alexandria, frankincense and unmixed sulfur, add it to vinegar and honey with a little wax, dissolve it (melt) and add chamomile oil, mix all of these (ingredients) together and bring it to him in the bathroom. He will be healed.¹⁹³

¹⁹⁰ Author's own translation.

¹⁹¹ Author's own translation.

¹⁹² λιβανος, from the Greek λίβανος. It corresponds to Arabic *liban* וּלִיט. It appears in genitive form as λιβανογ in Ch 180. It has multiple uses in various medical prescriptions, it used for temples pain as in Ch 63 and Ch 64 (see 5.2.2), and as a remedy to treat migraine in Ch 209 (see 5.2.3). And it used for eye disorders in P.Mich. MS 136 (see 5.6.3), and Ch 56 (see 5.6.18).

¹⁹³ Author's own translation.

Cod.Med.Copt., p. 242, recipe no. 25

етве оурфие ере печсфиа 20ке. Стафітнс акріас 194 Го \bar{e} ' 2асм Го \bar{e} ' кісіреос 195 Го \bar{e} ' люаркурос Го \bar{e} ' өни Го \bar{e} ' кіміноу Го \bar{e} ', итооу тнроу өнооу калфс, дітоу имиок етсіооун. Єрфан прфие \dagger вфте 2и тсіаоун \dagger епечсфиа мареч2ітч, минсфс игдакмеч 2і өрмфи

For a man whose body is itching: Lousewort six ounces, natron six ounces, pumice six ounces, six ounces of litharge, sulfur six ounces, cumin six ounces. Grind them all well, take them with you in the bathroom. If the person sweats in the bath, give (the remedy) to his body, let him rub it. Then bathe (wash) him with warm water. ¹⁹⁶

Cod.Med.Copt., p. 244, recipe no. 43

етве иет $\acute{0}$ и $\acute{1}$ шра. кароіа еушоушоу, $\acute{0}$ юу апуроу. волоуєвол $\acute{2}$ і нрп еудоор. тагсу ги тсіооуи ин оуащи инег.

For Psora: Dry nut, and solid sulphur; dissolve them in strong wine, anoint him in the bath with a large quantity of oil. 197

In Ch 225, it was also used to treat the rectum:

Ch 225

(403) омеос етве пмертф кеннаре 198 йстої ? \bar{z} аам ? \bar{b} еуфорчіоу ? \bar{b} смнринс ? өнооу (404) калфс тсоч гі өермон \bar{z} и тсіооун партоу чиало \odot

¹⁹⁴ Greek σταφϊς αγρια (this is the sharp or lark spur), *Delphinium Staphis agria*. It is called ניאַר imeaning "*Mountain raisins*" in Ibn Al-Baitar. Till 1951a: 72.

¹⁹⁵ It is called in Arabic (فينج) قينك (فينج). Till 1951a: 50.

¹⁹⁶ Author's own translation.

¹⁹⁷ Author's own translation.

¹⁹⁸ кеннаре stands книарі, кеннарі for means, Arabic نيق, שבע nabaq, sidr. It is also known by noybc, and хрфоүні "Christ's thorn tree- Ziziphus spina-christi". Chassinat 1921: 317.

(403) Likewise: Concerning the large intestine: Aromatic jujube seven drachmas, *aam* two drachmas, spurge two drachmas, myrrh a drachma; grind them (404) well; give to drink with hot water in the bath. He will be healed.¹⁹⁹

It is used also as a remedy to stimulate milk secretion, to be used for three days:

Cod.Med.Copt., p. 215, recipe no. 6

етве ніківе ноусдіме етреуррате ді нундин еуфооує дармоу ді α

For woman's breasts to give milk: Take dry garlic, boil them in unmixed wine. Let her drink in the bath for three days.²⁰⁰

The verb xwxm equally implies "to wash", and was used to express washing oneself in the bath:

Cod.Med.Copt., p. 244, recipe no. 41

етве нетере пеусима гике ецф пкатке. Xі ноукоуї ммн ми оугасм ми оугих, өнооу гюусоп, хітоу етсюоуи, тигс епеусима игн// тоу, чилло мииса етрецхижи тагсч инег мме гі нрп.

For people whose bodies are affected by the louse: Take a little urine, soda, vinegar; rub them together, take them to the bathroom, anoint their body with them, he will be healed. After bathing, anoint him with real (good) oil or wine.²⁰¹

¹⁹⁹ English translation by me of the French translation by Chassinat 1921: 317.

²⁰⁰ Author's own translation.

²⁰¹ Author's own translation.

There were other verbs used to express the washing or rinsing of the mouth such as ειω, ειω εβολ "wash, wash away", εις ρω-εβολ "wash mouth" in (P.Mich. 593a). ²⁰² The term αμωλ also appears in (P.Mich. 593b) within the expression αμωλ ρωκ εβολ "rinse your mouth". ²⁰³

P.Mich. MS 136, Il. 200-201

ebby mhoc also mayo $\%>>>>\dots$

For teeth which are painful: A cup of hot asses' milk. Wash your mouth out with it, and they will recover.²⁰⁴

According to P.Mich. 593b, one should place chewed pigeon's herb and its juice on the diseased tooth:

P.Mich. 593b, vo, Il. a 21-b 15

етве йноүге етаушне оүн оүнт[н] 6 же псім йороомпе ечпора, евох печмооу гі пса етаушне оүн оүнт[н] 6 же псім йороомпе ечпора, евох и 6 ка ка 6 ка

For diseased teeth: There is a plant, the dove-herb, it spreads out, which is vervain. You place a chew (?) upon the diseased tooth, and you place its juice upon that side for a while, and you rinse your mouth in a place to which no sun (-light) comes.²⁰⁶

²⁰³ Crum 1939: 558a.

²⁰⁶ Translation: Worrell 1935: 191, with slight modifications.

²⁰² Worrell 1935: 36.

²⁰⁴ Translation: Worrell 1935: 36.

Worrell mentions that peristereon is a kind of verbena. Worrell 1935: 191. περιστερεώνος, περιστερεών "vervain (name of a plant)". Coptic Dictionary online. [https://coptic-dictionary.org/entry.cgi?tla=C10148], (last accessed: 13.06.2021).

3.3 INTERNAL APPLICATION AND RECTAL MEANS

3.3.1 крме

κηλμε or κρμε means "poultice of wool or pad". It was piece of wool soaked in a drug, which would be applied to the painful part of the body. Acting as a kind of tampon, it would be inserted into certain cavities of the body or applied externally on the painful parts, and in case of pains on the stomach or diseased limbs. Chassinat²⁰⁷ argues that the word κλμε must certainly be close to the expression *klme.t*, which is expressed in a recipe relating to a female issue in the medical papyri of London and Leiden (v°, VI, 7-8). In the Ebers Papyrus, this remedy was applied by the doctors of ancient Egypt who used pessaries made from tapered linen that had been smeared with Nile mud and honey: "smear a cloth of the finest linen with it, put in her vagina for four days" (Pap. Ebers 96, 19-20). In Greek medicine, Oribasius also recommended the use of a suppository (Coll. Méd., VIII, 39, 5, II, 256).

крыє was used as a poultice to treat painful parts of the body in Ch 213, where the recipe recommends using sparrow droppings smeared on a scrap of wool to be applied upon the painful area, or to be inserted into the body of the patient. There are other recipes that refer to каме as a tampon coated with the remedy and inserted into the vagina (Ch 24, Ch 123, Ch 124, and 167), or the anus (Ch 110, Ch 167). As stated in Ch 213, the material of the poultice was wool; sometimes a specific type of wool such as white wool is specified in recipes (Ch 124). It should be noted that the material was not mentioned in the remaining recipes.

3.3.2 car

cae "suppository", 1 d 2 208 This remedy, which was probably introduced into the anus, appears in the papyrus Chassinat (Ch 75) as a treatment for a the large intestine. The recipe is prescribed as a potion τcω, 209 consisting of: twenty-ounces myrrh, twenty-ounces castoreum, twenty-ounce green vitriol, and three-ounces spurge; these ingredients should be ground well into the shape of a suppository, and the final product should be inserted via a patient's rectum (see 5.8.3).

²⁰⁷ Chassinat 1921: 125.

²⁰⁸ Westendorf 1977: 209.

²⁰⁹ Chassinat 1921: 188. Chassinat argued that: This word can be translated either by: potion or irrigation.

The Egyptian origin of the word suppository is \Box \circ s₃ and appears in Papyrus Chester Beatty VI:

Beatty VI, Bt 1 (1, 6)

"After, when he is ill: Mhwj-milk product [...], herb (?) [...]. Be [cru]shed in a mortar, greased through cloths, be mixed with honey, made [into] a 'bullet' for the anus, so that he immediately becomes well". ²¹⁰

Pap. Ebers 94 recommends many remedies consisting of varying drugs, mainly frankincense, onions, honey, wine or beer fly droppings, to be introduced into the vagina to treat vaginal conditions.

3.3.3 kannize

The verb kathlice, kathlice, kathlices. This remedy appears in BKU I 25 for treating blood flow issues, as well as in Ch 110 (see 5.8.4) for treating intestinal worms. The method of using this remedy is described in a recipe to help with vulva pain (P.Mich. MS 136), whereby the patient should 2400c $2L\bar{N}$ \bar{n} \bar{n}

BKU I 25, Il. 13-15, is a recipe used to treat blood flow complications due to smoking, which can be easily adjusted after its delivery:

BKU I 25, ll. 13-15

[етве]- оусуме ере -песноч гарос.[..] [..]рпос епкегт. капніде м[..] [..]фёнало :~

For a woman who is suffering from blood flow: [Give ...] to the fire and smoke [it, ...] She will be healed.²¹²

²¹⁰ Science in Ancient Egypt. [https://sae.saw-leipzig.de/de/dokumente/papyrus-chester-beatty-vi] (21.08.2019).

²¹¹ Cf. καπνίζω verb means "to make smoke". Liddell/Scott/Jones 1996: 876a.

²¹² Author's own translation.

3.4 INHALATION

3.4.1 accord

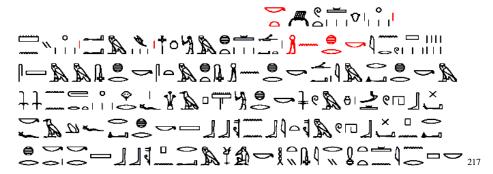
אבכם (a remedy to be introduced into the nose", derives from the Arabic term וועשפ sa'out²¹³ and can be a liquid, paste, pill or powder. As in (Ch 108), it was usually used to treat rheumatism, stream and coughing. Chassinat²¹⁴ translates it into *caputpurgium*. The nature and the composition of both κρπωρωτ and κασωωλ are apparent in medical recipes; moreover, the prescriptions also provided the method on how to apply the prescribed treatment:

Ch 108

(222) оуассийд етве перреруна йн пнауе 215 етгори есшти хі нак й ... йеуфорвіоу (223) оуовоу гі нег не \dagger еграі \overline{v} й фенти фаухо еуо йгреуна йсесшти йкесоп

(222) *Caputpurgium* for the cold and ear that is hard of hearing: Take of ... euphorbia, (223) melt them in fine oil; introduce into his nose, they will stop having cold, and they will hear again.²¹⁶

Inhalation as a method of treatment appears in Pap. Ebers 54, in which the inhalation of fumes from a fire to expel a cough is recommended:



²¹³ Chassinat argues that the name السعوط does not indicate to the special form of the medicine, because it may be a liquid, a pasty substance, a pill or a powder; however, it refers to the way it was applied. Chassinat 1921: 229.

²¹⁴ Chassinat 1921: 10.

²¹⁵ I assume that (γ) is incorrect and it should be (μαχε), I checked the transliteration from the image of the Chassinat papyri and I found it x, so μαγε is a mistake in the transcription.

²¹⁶ Author's own translation.

²¹⁷ Medizinische papyri. [http://www.medizinische-papyri.de/PapyrusEbers/html/kolumne_liv.html], (last accessed: 19.08.2020).

To expel cough: Another: Realger: 1, mineral? Resin?, aaAm plant 1, grind together. You should bring seven stones. You should therefore heat them on a fire. You should take one of these; you should give to him (something) of this remedy. Cover it (i.e. stone) with a new Hn.w pot, its bottom was pierced. You are therefore give a reed tube into this puncture. (And) you therefore put your mouth to this tube so that you inhale the smoke from it (lit.: swallowed). (Will) also (proceed) with each (other) stone. (And) you therefore eat some fat afterwards, from fatty meat or oil/fat.²¹⁸

The following recipe used to treat sneezing was also carried out by inserting the remedy into the nose:

Pap. Ebers 90

Another [remedy] for eliminating sneezing the nj3- disease in the nose: nj3j3 plant (mint); rubbed with dates, give to the nose. ²²⁰

3.5 DOSAGE AND TIMING

Some remedies contained instructions concerning the dosage and timing in order to help the patient to take the medicament in the most effective way. The patient's prescribed dose was carefully determined by the physician. To be effective, many medications needed to be given at specific times, such as every morning and three times per day...., etc. A recipe from a Coptic medical handbook related to the coenobium of Apa Jeremias in Saqqara, mentions that the remedy should be applied every morning:

P.Carlsberg 500

²¹⁸ Westendorf 1999: 607.

²¹⁹ Medizinische papyri. [http://www.medizinische-papyri.de/PapyrusEbers/html/kolumne_xc.html], (last accessed: 19.10.2020).

²²⁰ Westendorf 1999: 675.

²²¹ Erichsen 1963: 33 (fol. *B ro* ll.1–7).

ұти мпвнб. їшвнкшв накрі \bar{o}^{222} ечрнт гигенма еүхосе еренечбшве о исоүре өночі инечнооу мпоусвіш еушнш мпнеурну \dagger еневах еуонгухости екнаталау еуагтіон игони \dagger ауш періхре 223 ишшрп мние ауш шачталбо

Falcon herb or wild *Iobekob*: It grows in the wild, in high places and its leaves are thorny, crush it, and take its juice which honey in equal parts. Apply it to the misty eyes. You should put them in bronze vessel and apply every morning. And he will recover.²²⁴

The following recipe Cod.Med.Copt., p. 215, recipe no. 9 recommends taking one spoonful of the remedy every day:

Cod.Med.Copt., p. 215, recipe no. 9

етве гиківе етреуєрерште хі игимагт пороб 225 † оумістранос ммене гі гикеєїрп

For breasts to give milk: Take intestines seed, give (the patient) a spoonful everyday....²²⁶

In addition, Ch 56 stats that the remedy should be used both morning and night xpω νωρορπ νν νν νρογες ωραγλο "apply morning and night, they will be healed".

²²² ακριδ, ἄγριος "belonging to the field, wild". Liddell/Scott/Jones 1996: 15a.

²²³ cf. περιχρίω "to smear or cover over; to pour as unguent over, to anoint". Liddell/Scott/Jones 1996: 1394a.

²²⁴ Author's own translation.

²²⁵ Сf. вров, Crum 1939: 832a.

²²⁶ Author's own translation.

Table 2. Coptic remedies by etymology

<u>Greek</u>	<u>Coptic</u>	<u>Arabic</u>
<u>Greek</u>	Copue	Made
трохізко	СФ	البرود τωρπημ
	swr(zwr) > swl	
канартікон	ഭാനിലേന്	السعوط مcccot
	□ <u> </u> → g?\$	
κολλιοη		
	спехехін Ужина splilyn	
¥үрон		
	COX \$C1	
пластрон	CIOOYN	
	s(t)-in	
катапласна		
	крме/ к\ме \$" >> klme.t	
екушта	CAS	
	I de Digo de sin	
капнісе		

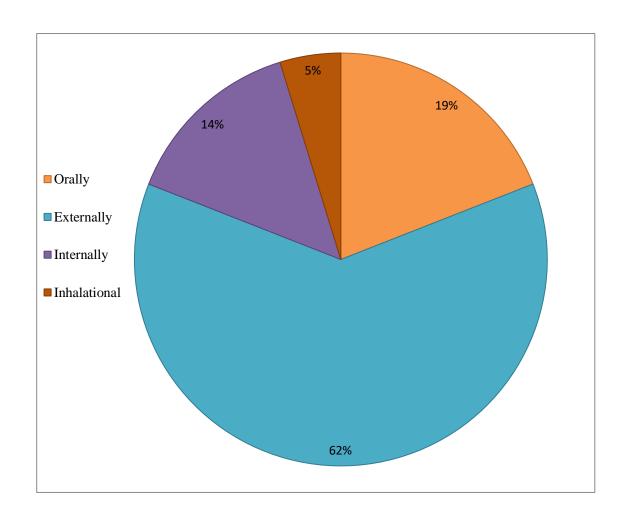


Figure 5. Remedies in Coptic medical texts

4. METROLOGY SYSTEM AND DOSAGE

A noticeable feature of some of the Coptic medical texts is the solicitude in providing accurate measurements of the recommended drugs. This was obviously of great importance in connection with the given prescriptions. The prescriptions were not just a collection of herbs and ingredients, they were carefully checked and quantified in precise quantities to ensure good treatment. A single prescription may have contained plants, minerals and animal elements which were all calculated in an accurate way. Evidence of accurate measurements and weights can be found in Chassinat papyrus, P.Mich.MS 136, P.KölnÄgypt. 12, P.Mich. 593a, P.Mich. 593b, P. Ryl. Copt. 106, and Cod.Med.Copt., p. 241–244. However, other medical documents, such as the Cod.Med.Copt., p. 214-215, the medical prescriptions are provided without any further measurements.

Most quantities in the Coptic medical recipes are represented by abbreviations or initials. ²²⁷ They used this system in order to control drug doses, and they realised the benefits or harms of one treatment over another by comparing effectiveness to drug dose. Certainly, the experience of the physician may have exposed the necessity for a particular measurement of varying ingredients to achieve coveted effects. Consequently, they seem to have understood that some drugs were more effective or apt than others in treating specific diseases. They seemingly realised that some drugs were better given in small portions to avoid harmful effects caused by an overdose, while others were administered in much larger quantities. It is important to note that in their surviving medical writings there are no recommendations for the unwise use of any of the described drugs.

²²⁷ Till 1951a: 11.

²²⁸ Hornblower & Spawforth 2003: 959.

4.1 DRY MEASURES

Table 3. Dry measures

Measures of dry capacity						
Unit	Greek name	Equal to	Modern equivalent	Abbreviation		
хітрє	Λίτρα	12 ounces	$288 \mathrm{g}^{229}$	↑ ↑		
сатеере	Στατήο	half an ounce				
ахматках A l-Mithq $ar{a}$ l $(المثقال)$		drachma or 1½ dirham	4.25 g			
2 овохос	ὀδολός, ὀβολός		0.72 g (0.025 oz) ²³⁰			
Драхин	δραχμή	6 obols ²³¹	4.31 g (0.152 oz)	>		

²²⁹ Demetris 2010: 5. ²³⁰ Hornblower & Spawforth 2003: 959. ²³¹ Smith 1870: 931.

грамма	γραμμάριου, γράμα	1/24 ounce	27.3 g	гp=
огкіа (Liquid) Ounce	οὐγκία, οὐγία (Liquid) Ounce			ह
- בبه Θαπό				

4.1.1 λιτρε²³²

λ, λι, λιτρε, λίτρα "pound". The main unit of weight in ancient Roman was *libra*, which is equivalent to 12 ounces. ²³³ The English word for λιτρε is pound, and the German translation is "Pfund". In the recipes is represented by three different signs: [↑] in Ch 20, 44, | \bigwedge] in Ch 115, Ch 187, Ch 191, Ch 350 and Ch 356), and [\bigwedge] in Ch 115, Ch 244.

4.1.2 сатеере

cateepe, στατής "stater", is equivalent to half an ounce:

P.Mich.MS 136, l. 217

²³² Till 1951a: 11–12. "The Pound (λίτρα) has to Oreibasos either 8 or 12 ounces (οὐγγία); 1 ounce has 8 drachmas (δραχμή) or 24 Gramma (γράμμα). 1 drachma equal to 3 Gramma or 6 obols (ὀβολός); 1 Gramma has 2 obols. It cannot be determined whether these ratios have validity also for the Coptic recipe texts. Even more, the transfer is uncertain in our present system of weights. Maybe the assuming that 1 ounce equivalent to around 30 grams, not far from the truth. Under this condition, 1 drachma corresponds to about 3.75 g, 1 Gramma about 1.25 g, and 1 obols about 0.75g."

²³³ Adkins and Adkins 2004:350.

Оонте й сатеере мпсімівіоу

Three staters of white lead

P.Mich. 593a, l. 17

оүсатере акоуфіа[...]инег йме

A sateere....of genuine oil

Cod.Med.Copt., p. 244, recipe no. 45

μουλς cateepe \bar{a}

Wax, one staters

4.1.3 almatkal

באאבדאב is an Arabic loanword borrowed from the Arabic weight designation *Al-Mithkâl* וلمثقال. αλματκα ("Τωραμα "Two *Mithakals*" in (P.Ryl. Copt.106, 1. 59). A mithkal is equal to 1 drachma or 1½ dirhams ("τεργαμα, τργαμα", Arabic בע מא יבר (בע מא י

4.1.4 драхин

Meaning "drachma" (δραχμή) was represented by the sign $\ ^2$, 235 as shown in Ch 112, Ch 25, Ch 39, Ch 40, Ch 41, Ch 44, Ch 46, Ch 47, Ch 48, Ch 49, Ch 51, Ch 52, Ch 53, Ch 56, Ch 57, Ch 59, Ch 62, Ch 63, Ch 76, Ch 77, Ch 78, Ch 79, Ch 80, Ch 83, Ch 84, Ch 87, Ch 88, Ch 90, Ch 92, Ch 102, Ch 103, Ch 104, Ch 106, Ch 107, Ch 115, Ch 117, Ch 119, Ch 122, Ch 126, Ch 128, Ch 130, Ch 131, Cod.Med.Copt.,

²³⁴ Richter 2014: 176.

²³⁵ But it turned in the opposite direction, \$\sigma\$, in the alchemical notation of Greek manuscript No. 2327 of the National Library. Chassinat 1921: 48.

p. 244. It was usually symbolized as "<"; a ½ drachma was represented by the same, albeit reversed, symbol ">". 236

4.1.5 гранна

One Scruple or gram (γραμμάριου, γράμα) is equal to 1/24 ounce.²³⁷ It was usually represented by the acronyms with two bars rp as in (Ch 5, Ch 6, and Cod.Med.Copt., p. 244). The common spelling of gram in Greek medical manuscripts was $\gamma \rho_s^{238}$

4.1.6 2овохос

20вολος, ὀβολός "obol" was a form of ancient Greek currency and weight, ²³⁹ which weighted approximately 0.72 grams of silver, and was generally represented by symbol 5. Once by symbol 5 in (Ch 112, Ch 240, Ch 116). As well as, by the following form 5 in (Ch 5, Ch 11, Ch 12, Ch 15, Ch 94, Ch 114, Ch 118, Ch 190, Ch 204 and Ch 250).

4.1.7 ana, oya ehoya, higi noyut

Many recipes mentioned the drugs without any indication of the amount or dose, determined by the doctor, who was the only one who had enough experience to use the appropriate amounts for every recipe. The amount was often given using simply the word ana (Cod.Med.Copt., p. 214–215, Cod.Med.Copt. 241–244) or ογωι επογα literally meaning "one unit per one", as is the case with these recipes (Ch 8, Ch 45, Ch 54, Ch 58 and Ch 82), or with the equivalent formula terms such as ογα επογα "one each one" or "one to one" (Ch 9, Ch 12, Ch 64, Ch 65 and Ch 152). Moreover, ογωι κατα νογα νεμτογ "one unit per one of them" is used in (Ch 109); and πιωι νογωτ "the same level" in (Ch 101). The term ογων "apart" is also expressed in (Ch 121, Ch 184, Ch 212).

 $4.1.8 \, cm$

²³⁶ Chassinat 1921: 48.

²³⁷ Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C8689], (last accessed 25.11.2020).

²³⁸ Chassinat 1921: 49.

²³⁹ Haarmann 2014: 125.

Meaning "measure, weight". Sometimes a different units of measurement of specific ingredients is described for each substance as in (P.Ryl.Copt. 106, SBKopt I 005 and P.Mich. MS 136):

P.Ryl.Copt. 106, ll. 51-64

ассінбініх 240 оүфі тарсінеі 241 4 фі ахвоухвоух 242 4 фі ахкаранвоух 243 4 фі вра гайбанці 4 фі ахвор \mathcal{B} .. Оунрт ецфооу 4 мас $^{\mathrm{T}}$ 4 ассьмоу 4 ассафар \mathcal{B} ахоуарс ецфооу 6 фіхоб исін \mathcal{B} вра емафі 4 сінапін 4 хнатухи 4 акаркаргар 244 ā [...]айфі \mathcal{B} бі оуа оуа фехффхоу боп піф гіфоу тагоўє. инеуєрну етепефани инпессіпіп 245 гфі пецрф гіхфпсагте кару тоукво тагоч кайфі оуєнгіон текріф ай ейеіф ай і кфехіє гароч фіхор тагоў ау итакоуфи оуєнгіон текріф ай і ейеіф ай і кфехіє гароч фіхор ў ау итакоуфи оуєнгіон текріф ай і ейеіф ай і кфехіє гароч фіхор ў ау итакоуфи оуєнгіон текріф ай і ейеіф ай і ейеіф

Ginger, a measure; tarsini, ½ a measure; pepper, ½ a measure; gilliflower, ½ a measure; seed of ,...., 2; dried... of roses ½; mastic, ½; spikenard, ½; ...,2; dried saffron, ½; of sesame, 2; seed of onion, ½; mustard, ½; ..., ½; feverfew; I,...2. Throw them in, one by one. Shake them. Take the ... from them. Mix them together, namely the garlic and the raisins. Cover its (sc. the vessel's) mouth (when) on the fire. Allow them to cool. Mix them thoroughly. Put them in a bottle. You shall eat a mithkal weight thereof; and when you eat a jar (thereof) and ..., you shall have benefit therefrom: it will cleanse the mouth of your heart and will benefit (?) the head. And the day you eat thereof, go not in unto a woman, neither eat fish nor herbs nor milk. The number of the medicaments is 19. 246

²⁴⁰ ассінонна, Arabic الزنجبيل. Crum 1909: 58.

²⁴¹ I assume that Tapcinei, Arabic دارسين, دارصيني, Cinnamon.

²⁴² مλβογλβογλ, Arabic الفلفل. Crum 1909: 58.

²⁴³ αλκαραηβογλ, Arabic القرنفل. Crum 1909: 58.

²⁴⁴ ملام عاقر قرحا Arabic Agir qarha عاقر قرحا.

²⁴⁵ ccmm stands for Arabic الزبيب means "raisins". Crum 1909: 58.

²⁴⁶ Translation: Crum 1939: 58, with slight modifications.

SBKopt I 005

Ді в єщі икопрос єγλεκλωκ ...ογαμ новен...Take 2 measures of soft dungs.... a measure of alum.

P.Mich. MS 136, ll. 134-137

оүші йфіханіс// фойит ... йші йєврі
аан// фойит йші йєврісєхінн
 // фойит йші йєвріємісі//

A measure of...., three measures of seed, three measures of parsley seed, three measures of dill seed.

Sometimes the "measurement units" are only expressed with corresponding figures without on or any other word included (Ch 28, Ch 34, Ch 35, Ch 36 and P.Ryl.Copt. 106):

Ch 28

- (59) κανθαρίς $\bar{\Delta}$ χαρκίτεος $\bar{\Delta}$ χχ $\bar{\Delta}$ πλξέλω $\bar{\Delta}$
- (59) Cantharis (Spanish fly) four (parts), white vitriol four (parts), verdigris four (parts).

Ch 34

- (67)...... λнш<u>ы мш</u> мш м хак 247 а тра[какнөнс²⁴⁸......
- (67) Someone he urinating blood: Round alum, tragacanth ...

Ch 35

(68) cιλικογ ā λγθαρκγ[poγ Minium one (part), litharge......

²⁴⁷ овиє йсіоді. Chassinat 1921: 134.

²⁴⁸ ΤΡΑΚΑΚΝΘΗς, †ΡΑΚΑΝΘΕ, τραγὰκανθα. Arabic: الكثيرا. Chassinat 1921: 136.

- (69) cilikoy $\bar{\mathbf{h}}$ moylaz $\bar{\mathbf{h}}$ nez $\bar{\mathbf{h}}$ [me
- (69) Minium eight (parts), wax eight (parts), fine oil.

4.1.9 ογκια

(οὐγκία, οὐγία), οττιλ, οντιλ, ελογντιλ "ounce" was usually abbreviated to Γ (γο), as in (Ch 18, Ch 74, Ch 192, Ch 198, Ch 209 and P.Louvre AF 12530).

4.1.10 βαπε, έλπαθ

צְּמִחְנּ is derivate from the Arabic term בְּיִבְּי, (plural form) צָׁמְחִאָּם. It appears as a weight measurement in P.Louvre AF 12530, צָּמְחָאָם מִדְדְאָצְמִח habat al-dahab "gold slack" as a synonym for "gold-Cadmium". 249 The elements mentioned include saffron and musk, cabapan ογραπε "safran one habba" in (P.Louvre AF 12530, recipe no. 16, l. 86), and in the case of musk, the feminine numeral is 'two' with the word μισκ сните ν̄εμορτ "musk two habba" in (P.Louvre AF 12530, Recipe no. 16, l. 85). the word ειωτ "barley grain" appears as (feminine as loan translation the weight measurements habba).

²⁴⁹ Richter 2014: 180.

4.2 LIQUID MEASURES

Table 4. Varying liquid dimensions in Coptic medical recipes

Liquid measures			
Unit	Greek name	Equal to	Abbreviation
З єстнс	ξέστης	approximately 0.539 litres	४ ā
λακ	Λακ	about 1/2 liter	
анок			
07&0, 0700		a quarter of lok	
арапш			
містранос	μύστρον		
۵пот			
бопе			

4.2.1 зестнс

ξέστης meaning "a measure (sextarius)" is a unit of measurement.²⁵⁰ It also appears as the abbreviation ξā in (Cod.Med.Copt., p. 244):

P.Mich. MS 136, Il. 214-215

оүзест[нс] писеме//

A pint of pure oil

P.Mich. 593a, l. 16

oyzecthc enackalon $\boldsymbol{\varepsilon}[\dots]$

A sextarius of asplinium [.....]

Cod.Med.Copt., p. 243, recipe no. 30

Ді нак ноубестне неарм немх ечих ечраке

Take a sextarius of burnt vinegar lees.

Cod.Med.Copt., p. 244, recipe no. 45

иег за

Oil one sextarius.

4.2.2 λακ

A liquid appears as λοκ in (P.Mich. MS 136, l. 190) ογλοκ νέντας είναι "a lok of acrid vinegar"; and also as λακ in (P.Ryl.Copt. 5, l. 66) λάκ κασκηκηληείν "Schkekelejn-Lak". Crum²⁵¹ lists λοκ as a bowl, cup, or as a measure of oil. It corresponds to both κοτύλη and ξέστης, and is also compared to the Hebrew term log "a small narrow necked vessel which also designates a liquid measure". ²⁵² The word λακ has already

²⁵⁰ Liddell/Scott/Jones 1996: 1189b.

²⁵¹ Crum 1939: 138a.

²⁵² Worp 2004 553.

been discussed by Worp, 253 who assumes that the term $\lambda\alpha\kappa$, found in two Greek papyri, refers to a measure of wine measure:

SB I 59297=SPP VIII 1160=XX 196.3

οἴνου λακ 1

 (V/VI^p)

SB XVIII 13930.9= P. Ross.Georg. V

οἴνου κόεις 400 ἀνὰ λακ 4 ἑκάστου κόεις

41, Fr. V. 3; for 13930.7 cf. BGU III

4 λακ = 1 κόεις according to SB XVIII 13930.9, as in BGU XII 2179.7: 1 λακοοτ= 4 κνίδια.

4.2.3 amok

амок, амог is a liquid measure,²⁵⁴ and appears only once in Coptic medical texts as амог (P.Mich. MS 136, l. 159), in which the medication is administered in doses of seven *Amok*. Till²⁵⁵ mentions that "The Origin and meaning of this word are unknown to me".

4.2.4 ογλθ, ογοθ

ογωτε, ογοτε, ογοθ "pouring thing, cup", corresponds to both κοτύλη and κύαθος. ²⁵⁶ It is related to the term ογωτε "draw", thus meets our "scoop". ²⁵⁷ On many occasions it appears in Chassinat Papyrus as ογωθ (Ch 163, Ch 172, Ch 187, Ch 232 and P.Mich. 593b); and as ογοθ in (Ch 119). Whether it means a specific or an incidental measure, remains undecided. Also, it is mentioned in the magical papyri London-Leiden (XXIV, 12, 20; V°, VII, 2, etc.): "Mr. Griffith believes that Demotic *outeh* may represent a quarter of *lok*." ²⁵⁸

4.2.5 αραπω

²⁵³ Worp 2004: 555.

²⁵⁴ Cherix 2019: 4a.

²⁵⁵ Till 1951a: 12.

²⁵⁶ Crum 1939: 499a.

²⁵⁷ Crum 1939: 498b.

²⁵⁸ Chassinat 1921: 50.

Crum²⁵⁹ mentions that it means לע.ש "the quarter". The measure of capacity was used and perhaps synonymous with paqττοογ (P.Ryl.Copt. 2, dry Bdellium) meaning "quarter."

4.2.6 містранос

μιστρανος, μύστρον "spoon" appears in Cod.Med.Copt., p. 215. It is doubtful, whether it is indicative of a specific or non-specific amount: ²⁶¹

Cod.Med.Copt., p. 215, recipe no. 9

X1 игимагт иброб \dagger оүмістранос

Take intestines seed, give one spoon

4.2.7 апот

Meaning "cup", αποτ is a casual amount similar to our "glass" and appears in Ch 110, Ch 229 and P.Mich. MS 136:

Ch 110

(237) течсоч теккапиіде ймоч йелко йнам сенаеї епесент \vec{e}_{i} \vec{n}_{i} хі йоуегмоуге (238) ий оуероте йеге ий оуечю \dagger оуапот нач йгнтч й \dagger \vec{r} пестоу йоро \vec{n}

(237) He drinks (the patient), and smoke it with the tamarisk bark; introduce them downwards the bottom, or take purslane, (238) cow milk and honey; give a cup to him in three days. Cook them at first.²⁶²

Ch 229

²⁵⁹ Crum 1909: (footnote no. 4) 56.

²⁶⁰ Liddell/Scott/Jones 1996: 1157a.

²⁶¹ Till 1951a: 12.

²⁶² English translation by me of the French translation by Chassinat 1921: 234.

ογαποτ πφαρμαγια

A cup of poison

P.Mich. MS 136, l. 40

ΑΠΟΤ ΝΩΝΚЄ ΜΝ ΟΥΑΠΟΤ ΝΗΡΠ

A cup of beer with a cup of wine.

4.2.8 боп€

Similarly, Gone means "cup" and "small amount":

P.Mich. MS 136, l. 166

ογδοπε περώτε νεώλη

A cup of sow's milk.

P.Mich. MS 136, ll. 200-201

оубопе йерште йеш есг[н]м

A cup of hot asses' milk.

4.2.9 оүкоүі, оуаны, расы

The terms ογκογι, ογωμμ meaning "little" and ρωωε signifying "enough" allow the amount to be decided by the experienced doctor such as: ογκογι μμογλε "a little wax", ²⁶³ ογκογι ππιπερ "a little pepper", ογκογι πνεε μμε "little genuine oil", ογκογί μμοογ "a little water", ογκοϊ πμρπ "a little wine", ²⁶⁴ ογκογι μμμ "a little urine", ²⁶⁵ ογωμμ νεμπχ "a little vinegar", ²⁶⁶ ογωμμ πκημμε "a little gum". ²⁶⁷ ογωμμ νειωε πμασε A little calf (or bull) gall. ²⁶⁸ νεε πεαρρωφε "oil sufficient quantity", ²⁶⁹ ρωφε περιω "sufficient amount of honey". ²⁷⁰

²⁶³ Cod.Med.Copt., p. 242, recipe no. 15.

²⁶⁴ P. Mich. 593b, p. 168 vo, ll. 5-20.

²⁶⁵ Cod.Med.Copt., p. 244, recipe no. 41.

²⁶⁶ Ch 160; P.Ryl.Copt. 107.

²⁶⁷ Ch 220.

²⁶⁸ P.Mich. MS 136, p.13, ll. 203–5.

²⁶⁹ Ch 148.

²⁷⁰ Ch 65.

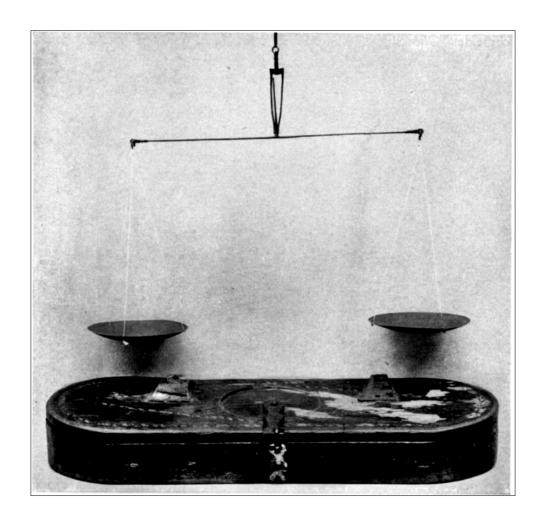


Figure 6. A small hand-balance of bronze dating from the post-Pharaonic period in the Metropolitan museum of Art (After Cartland 1917: 85)

5. MEDICAL RECIPES

Every individual medical text contains various medical prescriptions in which the diseases of various body organs are disclosed. These texts reflect a full knowledge of the human body according to a rational scientific approach.²⁷¹ From the sources texts it appears that both writers and readers of the text were physicians, and they subsequently belonged to the educated level of society.²⁷²

5.1 PRESCRIPTION STRUCTURE

Here the structure of the medical prescriptions, and how physicians recorded their administrative procedures and scientific knowledge in the form of an efficacious prescription will be described. An individual prescription contained one or more diverse remedies, including the technique of preparation, instruction for taking the remedy and possible explanatory remarks.

Each prescription mentioned one disease or complaint (sometimes a group of diseases) by using the Coptic preposition ετβε "concerning", followed by the title of the disease or the name of the diseased part of the body, and then by the verbal structure εq/τ/γ †κκλς, αμακε, μοκε, μοκε, αμακε, αμακε "It has pain, sick, be painful, swell". Some prescriptions refer to the patient by using the indefinite pronoun ογλ²⁷³ "someone".

After that the physician put the remedy, which consisted of a number of ingredients usually named one by one, in writing along with instructions for its preparation: mixed, crushed, melted, pounded, and so on. Some ingredients had to first be cooked before application, therefore the recipe respectively details instructions on how to cook, boil and use the remedy: פּגפּשׁס אַּשׁסׁסְ גָּבְיּשׁׁם פּבּרְיִשׁׁם פּבּרִישׁׁם פּבּרְיִשׁׁם פּבּרְיִשׁׁם פּבּרְיִשׁׁם פּבּרְיִשׁׁם פּבּרְיִשׁׁם פּבּרְיִשְׁׁם פּבּרְיִשְׁׁם פּבּרְיִשְׁׁם פּבּרְיִשְׁׁם פּבּרְיִשְׁׁם פּבּרְיִשְׁׁם פּבּרְיִשְׁׁ פּבְּיִשְׁׁ בּבְּיִשְׁׁ פּבְּיִשְׁׁ בּבְיִשְׁׁ בּבְיִשְׁׁ פּבְּיִשְׁׁ בּבְיִשְׁׁ בּבְּיִשְׁׁ בּבְיִישְׁׁ בּבְיִשְׁׁ בּבְיִשְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיִישְׁׁ בּבְיישׁׁ בּבְיִישׁׁ בּבְיִישְׁׁ בּבְיישׁׁ בּבְיִישְׁׁ בּבְיישׁׁ בּבְיישׁׁ בּבְיישׁׁ בּבְישׁׁׁ בּבְּישׁׁׁ בּבְּישׁׁׁ בּבְּישׁׁׁ בּבְּישׁׁׁ בְּבְּישׁׁׁ בְּבְישׁׁׁ בְּבְּישׁׁׁ בְּבְּישׁׁ בּבְּישׁׁׁ בְּבְּישׁׁׁ בְּבְּישׁׁ בְּבְּישׁׁׁ בְּבְּישׁׁ בְּבְּישׁׁ בְּבְּישׁׁ בּבְּישׁׁ בְּבְּישׁׁ בְּבְּישׁׁ בְּבְּישׁׁ בְּבְּישׁׁׁ בְּבְּישׁׁ בְּבְּישׁׁׁ בְּבְּישׁׁׁ בְּבְּישׁׁׁ בְּבְּישׁׁׁ בּבְּישׁׁ בּבְּישׁׁ בּבְּישׁׁׁ בְּבְּישׁׁ בְּבְּישׁׁׁ בְּבְּישׁׁׁ בְּבְּישׁׁ בְּבְּישׁׁ בְּבְּישׁׁ בּבְּישׁׁ בּבְּבְּישׁׁ בְּבְּישׁׁ בִּבְּיִישְׁ בּבְּיִישְׁ בּבְּיִישְׁ בּבְּיִישְׁ בְּבְּיִישְׁ בְּבְּיִבְּיִי בְּבִּיּבְּיִי בְּבִּיּבְּיִי בְּבִּיּבְּיבְּיִּבְּיִי בְּבִּיּבְּיִי בְּבִּיב

I argue that this was expressed through some phrases that reflect the experience and experiences of the doctor, such as the following statements: "We usually call it the physician master" Ch 106; "A very good powder for all eye diseases. I examined it and I found it is correct; it has no equal in efficiency, my son. If you prepare it, (you will find) it is precious many times beyond its weight; if you prepare it, you will find that it is a wealth to keep in your treasure" Ch 109; "I examined it and I found it is genuine" Ch 26. Also, the physicians were aware of the appropriate ways of composing the ingredients with accurate measures, and of their previous medical experiences as "we have found it written in the books of the ancients" Ch 65. I discuss this in details in Chapter 7 (Medical Profession and Nursing).

²⁷² This is proven by the use of various Greek and Arabic expressions alongside their Coptic counterpart. This linguistic diversity requires knowledge of these languages. Richter argued that "these texts required well-educated readers of Coptic who had a good deal of taxonomic vocabulary from Greek and/ or Arabic technical language at their disposal" Richter 2016a: 40.

²⁷³ For example, Ch 130 (see 5.5.1), Ch 153 (see 5.5.3), Ch 199 (see 5.6.1).

²⁷⁴ Ch 218 (see 5.16.9).

²⁷⁵ See here chapter 3 (Drug Measurement in Coptic Medical Texts).

Some ingredients were more precisely defined such as white vitriol/lead/ gum, black pomegranate/ ox/gall of labis (fish cyprinus niloticus), 276 red vitriol/lead, green vitriol/ pepper, and ειλιλισ²⁷⁷ "yellow marobalan". 278 Other ingredients were named after their origins such as 20cμ παραμικον 279/ 20cμ παραμικον 480 "Arabia soda", νεχε πεσως "Ethiopian tooth", 281 περει 282 and αςπιχενι 283 "Persian", самоугир соуры "Syrian fennel", and едип егромин "from Rome" literally meaning "it belongs to Rome". 284 Some recipes mentioned tools of which were used to crush or mix ingredients like μησε πίζιβωι "Ibis feather", 285 μχα 2 τ/μχαθ "mortar", 286 βρβε "vessel or receptacle (holding a medicinal mixture)", 287 ειτος παβασαείν "glass vessel", 288 ακκιον/αγτιον "vessel", 289 αλπαρνίε "νessel made from clay", or copy "sieve". 290

The physician then gave instructions on how to apply the medicament and for how long the patient should use it, using the terminology, for example, κατα αματ νιμ "according to each case", χρω εν τcιοογν "apply in the bath", επιωρομέτ έξοογ "three days", † τ ναμ εμνανκότε "give three to him when he goes to sleep", or ναρονντ νέροογ "three times in a day".

Each recipe ended with the Greek verb χρώ χράομαι "to apply, to use" sometimes including the abbreviation ξω. Some recipes precisely mentioned how to use them such as χρω caboλ "apply outside", χρω caboλ ς cagoγn "apply on the outside or inside", or with the Coptic verb † "give". The effectiveness standard formula of the remedy application takes form of q-na-λo "he/ it will be healed/ recover", or q-na-ghton²⁹¹ "it will be relieved", q-na-oγxal²⁹² "he will recover", and ωa-q-θγραπεγε²⁹³ "it will be healed". Furthermore, the recipes were occasionally followed by religious words and pious phrases calling

²⁷⁶ Ch 113; Ch 194.

²⁷⁷ Ch 87; Ch 90. The word צואנאס is Arabic word written with Coptic letters, Arabic *hlilj*. There are many types of myrobalan, the yellow, red, and black. Cf. Ibn Al-Baitar: 594.

²⁷⁸ The yellow myrobalan is also mentioned in Ch 47 "2ихис аспвар".

²⁷⁹ Ch 172.

²⁸⁰ Ch 69.

²⁸¹ Ch 153 is a prescription for painful gums, (see 5.5.3) 'Dental and oral diseases'.

²⁸² Ch 92.

²⁸³ P.Louvre AF 12530, recipe no. 16, ll. 79–86.

²⁸⁴ Ch 221 see here eye diseases, греуна "flux, stream, rheumatism".

²⁸⁵ P.Mich. MS 136, Il. 183–195. In addition, ibis feathers were used to apply the medicament. They were used in some cases of skin diseases, urethral abscesses in the anus in (Ch 212); pustules on the face (P.Mich. MS 136, l. 186); and for pustule that crust over (P.Mich. MS 136, l. 183).

²⁸⁶ Ch 148, Ch 102, Ch 109,

²⁸⁷ Cod.Med.Copt., p. 243, recipe no. 27.

²⁸⁸ Ch 8, Ch 102, and Ch 109.

²⁸⁹ Cod.Med.Copt., p. 214, recipe no. 2.

²⁹⁰ P.Ryl.Copt. 106, ll. 1–14; Ch 11.

²⁹¹ Cod.Med.Copt., p. 241, recipe no. 3 (see 5.16.11); P. CARLSBERG 500 (see 8.3).

²⁹² Ch 69 (see 5.7.1).

²⁹³ Cod.Med.Copt., p. 242, recipe no. 14 (see 5.16.6).

on the aid of God's power like φαγλο $\overline{\varrho}$ ν τσομ νφινούτε "He will recover by the power of God"; ²⁹⁴ γναλο $\overline{\varrho}$ ν τσομ νπιχοίες "He will recover by the power of the Lord"; ²⁹⁵ ςναλο $\overline{\varrho}$ ν πούως μπινούτε "She/it will recover, by God's will"; ²⁹⁶ \bar{a} φρ πετσοούν ας νανού ππιαρρέ εματε "God knows how this remedy is very good!"; ²⁹⁷ $\bar{\rho}$ ςνθ αι νούγρηρε "with God, take a flower"; ²⁹⁸ and beginning the recipe by mentioning the name of the god εμπραν επνούτε "In the name of God". ²⁹⁹ In addition, among the pure medical prescriptions, they are also invoking Iaô, Iaô. ³⁰⁰ Even the medical texts contained biblical quotations such as Psalm 150, 1. ³⁰¹

Some texts demonstrated punctuation marks between prescriptions, 302 which were occasionally marked in red ink. 303 Names of drugs were usually separated in some cases by a point. Only Chassinat papyrus includes special punctuation marks between prescriptions with some endings of prescriptions marked with the sign \odot . Individual cases end with 305 The scribe sometimes marked the end of a formula with 305 Names of drugs were usually separated in some cases by a point. Only Chassinat papyrus includes special punctuation marks between prescriptions with some endings of prescriptions marked with the sign \odot . Individual cases end with 305 The scribe sometimes marked the end of a formula with 305 Names of drugs were usually separated in some cases by a point. Only Chassinat papyrus includes special punctuation marks between prescriptions with some endings of prescriptions marked with the sign \odot . Individual cases end with 305 The scribe sometimes marked the end of a formula with

The medical recipes form the vast majority of the medical healing system. Coptic-speaking physicians treated almost all the possibly diseased parts of the human body, hence the following recipes are divided into subgroups to the body organs that they intended to treat:

²⁹⁴ Ch 171.

²⁹⁵ Ch 156.

²⁹⁶ Ch 125.

²⁹⁷ Ch 157.

²⁹⁸ P.Louvre AF 12530, ro, l. 88.

²⁹⁹ P.Ryl.Copt. 106.

³⁰⁰ P.Sarga 20.

 $^{^{301}}$ en.1 1 [τ]ε αγτο θεον της αγΐας αγτογ ενίτε αγτον ν сτρεγμα $^{+}$ της τηνήθεος αγτογ ενίτε αγτον: εν τε τελας $^{+}$ της αγτον ενίτε αγτον κατα τε πληθος τες μεκαλωσενης αγτογ ενίτε αγτον εν χωζαλπικός (SBKopt. I 001).

³⁰² SBKopt. II 1043.

³⁰³ CAT. NO. 137 (98: Ms4).

³⁰⁴ Ch 7.

³⁰⁵ Ch 50.

5.2 HEAD DISEASES

5.2.1 ανκεφολος³⁰⁶ εγτκας "painful brain":

The standard of complaints related to the head was a pain that undoubtedly refers to the "headache". Coptic medical recipes distinguished between different types of headaches system analogs to modern-day diagnoses, hence some recipes are dedicated to the general headache, while others to migraine or the lateral headache. As shown in P.Ryl.Copt. 107, the common expression used to refer to the headache was ankeφολος eq†κac "brain that is painful", which recommended oil and vinegar to be mixed with the egg of a hen to treat "all diseases of the head and temples"; ³⁰⁷ P.Carlsberg 500 also recommends a recipe that consists of a type of herb called αροπαροπ combined with leek seeds and milk. In addition to medical recipes, a headache was treated with magical acts like spells and amulets: ³⁰⁸

P.Ryl.Copt. 107

нефоне тнроу итапе минснау оуанкефолос 309 еч † кас хі илк ноусооүге мпапоі оуопопс † онег миоукоу[і] игних ехос тагоу мин[е]ү[ерн]ү каа[ү а]пе каа[...]оў йсорт на[у]ау ехоч [...] † е.ейіа[

All diseases of the head and temples, (for) a medulla/ brain that is painful: Take a hen's (?) egg; break it; add oil and a little vinegar. Mix them together and place them . . . head. Place of white wool thereon...³¹⁰

P.Carlsberg 500, folio B vo, 106, ll. 11-14

түсо[5]ооүт нолгаратион июүерите ие[5]ооүт

³⁰⁸ See ACM, 263, no. 127; Michigan 136, ll. 124–134; ACM, 304, no. 133.

³⁰⁶ ανκεφολος, ἐγκέφαλος. Cf. ἐγκέφαλος "within the head, brain". Liddell/Scott/Jones 1996: 472a.

³⁰⁷ Till 1951a: 13.

³⁰⁹ ανκεφαλος, ανκεφαλος, ενκεφαλος "contents of the head (brain)". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C8862], (last accessed: 11.03.2020). Cf. ἐγκέφαλος "within the head, brain". Liddell/Scott/Jones 1996: 472a. In Arabic it corresponds Al-Moukh المخ

³¹⁰ Translation: Crum 1909: 59, with slight modifications.

For headaches: Crush this herb (000000) with leek seed and with male c(0w)'s milk.³¹¹

5.2.2 смаау сттіккас "Painful temples":

Chaay εττικάς "temples which are painful" the pain of temples indicates the lateral headache.³¹² The Chassinat Papyrus includes some recipes against temporal pain, which are to be placed or smeared on the head. It is clear that the temple pain was connected to eye pain as shown in recipe Ch 86 (see 5.6.15), and also connected with head and brain disorders as in the aforementioned recipe P.Ryl.Copt. 107 (see 5.2.1):

Ch 63³¹³

(123) омеос \bar{n} смаау еттіккас хіванос \$ \bar{a} картамон $\314 \$ \bar{a} \$1 мооу \bar{n} сма $\315 хрс

(123) Likewise: Temples that are painful: Incense one drachma, garden cress seed one drachma; (crush them) with water (white) of egg; apply.³¹⁶

Ch 64

(124) омеос несналу синринс аллынс ліванос өҳ \equiv ох 317 киме оуа епоуа өнооу π н π 1 1 нооу π 2 π 3 хр

(124) Likewise: Temples: Myrrh, aloes, incense, starch, gum, same amount of each; crush them with wine and water (white) of egg; apply. 318

³¹¹ English translation by me of the German translation by Erichsen 1963: 34.

³¹² Till 1951a: 13.

³¹³ This recipe and the following one begins with the adverb ομέος, ὁμοίως "in like manner with, alike, equally", which refers to the previous recipe (Ch 62) for treating head psora and recommends the same ingredients (see here head psora).

³¹⁴ Cf. κάρδαμον "cress, *Lepidium sativum*". Liddell/Scott/Jones 1996: 877b.

³¹⁵ ωλχ **5**. cooyee. Chassinat 1921: 173.

³¹⁶ English translation by me of the French translation by Chassinat 1921: 173.

³¹⁷ θΣΞοχ = αμέλογ, ἄμυλον. Chassinat 1921: 173.

³¹⁸ English translation by me of the French translation by Chassinat 1921: 173.

(315) етве генсиалу бу†ккас буфшив саміт 319 $\rat{2}$ а оуфни нгнйх внооу ках хрф брооу

(315) For painful and sick temples: Semolina three drachmas, mustard a drachma, a little vinegar; crush them well; apply for them. ³²⁰

5.2.3 กรุงพธหาลมเดน "pain on one side of the head or face" or "migraine":

πεγμεκρανιον meaning "pain on one side of the head or face" and "a migraine". εγμεκρανιον derives from the Greek word ἡμικράνιον,³²¹ and the Arabic الشقية scala n° 44,³²² and is a particular type of headache called a half-sided headache or migraine. Medical recipes prescribed a remedy in the form of a tablet as in Ch 209, which prescribed a tablet from pigeon droppings, incense, orpiment, and vinegar. The symptoms of this disease are described accurately in Miracle Sixteen attributed to the shrine of Apa Mena. This miracle concerns a "Samaritan woman in Alexandria", who has suffered from this disease for three years, yet no medicine has cured her. She has spent a lot of money on trying to find a curative remedy, but to no avail. One day, some Christian women advise her to go to the shrine of Apa Mena to find the solution, and there the miracle occurs:³²³

Cod. M. 590, f. 45 v., Col. I, ll. 14-25

Де неуен оүноб иф ω [не] ген тес апе ифаүмоүте ероч гі $[\tau \bar{n}]$ не саеін. де гумікраніон. ере тесапе \uparrow ткас. ау ω есвасаніzе епегоуо ифомте иромпе. ере $\tau \uparrow$ ткас оу ω йс ω С

There was a great pain in her head called by doctors hemicranium and she suffered greatly for three years. The pain is eating her.³²⁴

³¹⁹ (Denit, Arabic samid سَمِيد, The samid is a kind of semolina made from coarsely-ground wheat. It meets the Latin similago. Chassinat 1921: 277.

³²⁰ English translation by me of the French translation by Chassinat 1921: 277.

³²¹ Cf. ἡμικράνιον "pain on one side of the head or face; migraine". Liddell/Scott/Jones 1996: 772b.

³²² Munier 1930: 160.

³²³ See chapter 8 "The Role of monasteries in the medical healthcare".

³²⁴ Translation: Drescher 1946: 119, with slight modifications.

The incident has also been mentioned in the Bohairic life of Bishop *Apa Pisenthius of Keft:* "τογι μεν νασοι νημικρανίον εςτας επιογαί εςφιρ ντε πέςζο 2ως τε έρε πέςβαλ ναφωρά ντεψί εβολ.... "The one was afflicted with hemicranium on one side of her face so that her eye was almost starting out...". ³²⁵

Ch 209

(376) оттрохікос (sic) єтвє прумекраніон копрос йоєромпе хіванос арсунікон f \bar{a} єпота вноот 21 дн \bar{m} х хрф

(376) Troche for the migraine: Pigeon droppings, incense, orpiment, an ounce of each; crush them with vinegar; apply.³²⁶

The half-sided headache is detailed in one of the most-known sections in the Ebers Papyrus 250:

Pap. Ebers 250

Another [remedy] for suffering (meret) in half the head (ges-tep). The skull of a cat-fish (nar), fried in oil. Anoint the head with it over 4 days.³²⁸

The unilateral headache has also been mentioned in the Hippocratic corpus, defining it as the term hemicranias; the English word migraine most likely derives from this term. 329

5.2.4 пмоүг งิтลпе "burning of the head":

пмоүг йтыпе literally means "burning of the head": Ch 148 recommends an ointment made up of verdigris, rosin, calf fat and oil:

³²⁵ Drescher 1946: 119.

³²⁶ English translation by me of the French translation by Chassinat 1921: 302.

³²⁷ Medizinische papyri [http://www.medizinische-papyri.de/PapyrusEbers/html/kolumne_xlvii.html], (last accessed: 30.08.2019).

³²⁸ Science in Ancient Egypt [http://sae.saw-leipzig.de/detail/dokument/papyrus-ebers/], (last accessed: 30.08.2019).

³²⁹ Nunn 1997: 93.

(300) Омеос пмоүг йтапе $\overline{\text{voy}}$? $\overline{\text{г}}$ карафоніас 330 ? $\overline{\text{г}}$ книме ймаасе ? $\overline{\text{a}}$ нег печрофе (301) оуфө нетхнк $\overline{\text{vn}}$ пкф $\overline{\text{t}}$ таау гі $\overline{\text{vn}}$ нетфооуе гі темҳаө хрф $\overline{\text{O}}$

(300) Likewise: The burning/inflammation of the head: Colophonian gum three drachmas, rosin three drachmas, calf fat one drachma, oil sufficient quantity; (301) pour the soft substances in the fire; put them on the dry ingredients in a mortar; apply.³³¹

In P.Ryl.Copt.109, three unidentifiable drugs ground with vine charcoal and other substances, which should be placed onto a fire and then used as cream. Since the beginning of the recipe is missing, the purpose of this remedy is unclear; however, it does mention that the substances should be used to anoint the face:³³²

P.Ryl.Copt. 109

]kapbwne enwenelole taab enkwet by hacmoy 333 wala koyw 334 apa menhe taec nekeo emm[

Ashes of vine-wood/ charcoal put on the fire. Crush *Masmu*, *Schala*, kostos, and oil, anoint your face (therefore). ³³⁵

³³⁰ καραφονία, κολοφωνία "Colophonian gum, resin of the pine". Cf. κολοφωνία, Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C9488], (last accessed: 03.11.2020).

³³¹ Author's own translation.

³³² Till 1951a: 13.

³³³ Its meaning is unknown, it is also attested in a medico-magical prescription K11088: ἀςςογαχχίαρ θη μασμού αλούς .. φ . "Sugar (?), offering: Masmou, Salou (?) [...]". Hevesi 2015: 58.

³³⁴ κόστος. Cf. κογα) noun, kostos, koush; Saussurea Lappa (a spice). Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C9529], (last accessed: 15.04.2019).

³³⁵ Author's own translation.

5.3 EAR DISEASESES

5.3.1 μααχε εγτικάς "Painful ears":

The main complaint relating to the ear was the earache, which was usually treated with a small amount calf gall being poured into the ear:

P.Mich. MS 136, p.13, ll. 203-5

етве $\sqrt{2}$ мнааже сүтіткас оущим исіще ймасе таач сроүн епечмааже ауш ра нечовре ауш сенало $/\!/$

For painful ears: A little calf (or bull) gall. Put it into his ear and under his teeth, and they will get better.³³⁶

If the earache was excessively painful, then a mixture of opium, calf fat and warm milk would be poured into the ear as Ch 114 recommends:

Ch 114

(242) оүнаже ечтіккас пара піді опіон книне йзоющь єрште волоў євол йін неуєрну (243) онооу \dagger єпнаже чнало йтеўноў алла йпр \dagger тагре ершне фантекжі йпеквеке

(242) A painful ear: The same measure (from) opium, calf's fat, milk; melt them together; (243) warm them; and apply to the ear, the pain will stop immediately. But do not give the remedy to man until you receive your wage.³³⁷

5.3.2 оүнахе ечфоне "Sick ear":

The sick ear was an expression that may have referred to all possible complaints. Ch 173 recommends pouring cooked oregano and hyssop into the ear:

³³⁶ Translation: Worrell 1939: 36, with slight modifications.

³³⁷ Author's own translation.

- (333) оүнаже ечфине оріканон 338 гуссопон пастоу кахис хри \odot
- (333) A sick ear: Oregano, and hyssop; cook them well; apply. 339

Ch 206

- (373) онеос оүнаже ечфине амминакоү өүміаматос гітү гі ерште йсгіне есносе йоү $[\phi]$ нре йгооүт хри ероч
- (373) Likewise: Sick ear, gum ammoniac; rub it with the milk of a woman who gave birth to a male child; apply to it.³⁴⁰

5.3.3 πμαγε ετρορφ εςωτμ "the ear that hears hardly":

Deafness related to ρεῦμα was cured by pouring olive oil and softened *Euphorbium* in the patient's nose, as in Ch 108 ογαςςωσια ετβε περρεργια "*Caputpurgium* for the rheumatism", Till³⁴¹ argues that it probably refers to only the temporary impairment of the hearing induced by a violent cold (see 3.4.1).

5.4 MOUTH DISEASES

5.4.1 tappo econone "Sick mouth":

This expression may refer to mouth inflammation or pain in general, which could be treated with alum and dill:

ορικανον, ὀρίγανον "organy". Cf. ὀρίγανον "origanum heracleoticum". Liddell/Scott/Jones 1996: 1250b. ορικανον, ὀρίγανον correspondence to the Arabic ארבי וו it is known that oregano has a "healing properties, especially for an ear infection "of interest is the observation that oregano phytochemicals can suppress microorganisms associated with oral disease and ear infections". Singletary 2010: 131. In Egypt, oregano is still used as a folk remedy against earache and hearing impairment (ingredients: one spoonful of oregano and in a cup of water, you should boil the water and add the oregano, allow them to boil for two minutes; drink two cups daily).

³³⁹ Author's own translation.

³⁴⁰ Author's own translation.

³⁴¹ Till 1951a: 19.

(312) оутапро есфине стептеріас $\$ \bar{a} аннооу 342 $\$ \bar{a} фр петсооун же наноу піпагре єнате хі йпеквеке

(312) A sick mouth: Alum one drachma, dill one drachma. God who knows how this remedy is very good!. Take your wage. 343

5.4.2 Other complaint related to the mouth είταγο ανόμ εβολ ενν πρώμ "mouth bleeding", the medical recipe BKU I 28, recommended a drinking remedy against mouth bleeding consists of: egg and tar (see 5.17.7).

5.5 DENTAL AND ORAL DISEASES

There are three terms in Coptic that mean "tooth": NAAXE (or NAXZE), OBZE and GOA. Although each of these terms were used for "teeth" in general, sometimes they also referred to a particular type of tooth. (C)OA in the strictest sense of the word means "molar". In Ch 184, NAAXE and GOA are explicitly distinguished, while in Ch 151 both expressions are synonymous.³⁴⁴ Whole recipes used NAAXE as a general term for 'tooth'. On the other hand, OBZE only appears in a single recipe (P.Mich. MS 136 and Ch 224) meaning wolf tooth. Coptic medical texts contained many recipes for treating teeth.

5.5.1 Νααχε εγτιτκας "painful teeth":

The most common complaint related to teeth disorders was the toothache: If one had a toothache, it was recommended that he or she should rinse the mouth with warm milk:

P.Mich. MS 136, ll. 200-202

etbe çûnaaxe eytitkac oygone ñerwte ñew ecz[h]m eia pwk ebox ñmoc ayw cnalo $\#>>>>\dots$

³⁴² амнөөү, Arabic *shabat* شبت. Chassinat 1921: 276. شبت пламідон, Kircher 1643: 198.

³⁴³ Author's own translation.

³⁴⁴ Till 1951a: 20.

For teeth which are painful: A cup of hot asses' milk. Wash your mouth out with it, and they will recover.³⁴⁵

Also, one should use calf gall, which treated both issues of the ears and teeth as in P.Mich. MS 136, ll. 203-205 (see 5.3.1).

Another recipe describes or ally consuming $s\hat{o}ri$, vitriol yellow and alum in equivalent measurements:

Ch 130

(270) ογα έρε νέμναχε φωνέ ζωραιος 346 \raiset α μισέος 347 \raiset α τέπτεριας \raiset α θνοού κάλως \raiset έγουν έρων μνάλο

(270) Someone whose teeth are sick: Red vitriol one drachma, yellow vitriol one drachma, alum one drachma; crush them well; give it in his mouth; he will be healed.³⁴⁸

According to P.Mich. 593b, one should place chewed pigeons herb and its juice on the diseased tooth for some time to act against a toothache:

P.Mich. 593b, p. 168, ll. a 21-b 15

етве йноуге етфине оүн оүн $\bar{\gamma}$ [н] σ де псім й σ роомпе ечпор $\bar{\phi}$ евох ете перісте решнос пе [и]ка оүе σ оүш $\bar{\phi}$ 0 г $\bar{\eta}$ 1 глааде етфине $\bar{\eta}$ 1 ка печнооү ето е $\bar{\eta}$ 2 г $\bar{\eta}$ 3 год е $\bar{\eta}$ 4 г $\bar{\eta}$ 5 г $\bar{\eta}$ 6 г $\bar{\eta}$ 7 г $\bar{\eta}$ 6 г $\bar{\eta}$ 7 г $\bar{\eta}$ 6 г $\bar{\eta}$ 7 г $\bar{\eta}$ 7 г $\bar{\eta}$ 7 г $\bar{\eta}$ 8 г $\bar{\eta}$ 8 г $\bar{\eta}$ 9 г $\bar{$

For diseased teeth: There is a plant, the dove-herb, (widely) scattered, which is peristereoma. You place a chew (?) upon the diseased tooth, and you place its juice upon that side for a while, and you rinse (?) your mouth in a place to which no sun (light) comes.³⁴⁹

³⁴⁶ χωρωιος σῶρυ, Arabic *sôri* سورى "red vitriol". Chassinat 1921: 127.

³⁴⁵ Translation: Worrell 1939: 36.

³⁴⁷ μισος, μίσυ, Arabic qulqutār "colcothar, yellow vitriol", and πικαλαγθος الخلقظار in Kircher 1643: 205.

³⁴⁸ Author's own translation.

³⁴⁹ Translation: Worrell 1939: 191, with slight modifications.

Another recipe offers a powder for teeth and gums without causing disease or complaints:

Ch 178

(339) ουξυρον ντέλλαρτον έτβε ννλλώς μν πλλή ννλλής αρκηνικόν λ λεπίτος λ θίου λπέρου (340) χαρτής εύρωχ λ μωλήβου λ λλώς λ επούλ θνοού κάλως χρώ λ

(339) A powder of paper for teeth and gum of his teeth: Orpiment, copper mill scale, native sulfur, (340) burnt paper, lead, salt, four drachmas of each; crush them well; apply.³⁵¹

5.5.2 Nace pote³⁵² "Teething":

For teething toddler's, the following recipe recommends wax foam to treat the pain:

P.Mich. MS 136, ll. 53-55

етве оүкоүї йкеке етре нечнаже рате енпечгісе †
сувнн †ел 353 моухаг енечн
чте

For a little child, so that his teeth grow without trouble/suffering: put the foam from wax on his swellings.³⁵⁴

5.5.3 παλη νηθημέχε τκκάς "Painful gum":

παση κικας literally means "the flesh of his teeth", which refers to the gums. In this case, Ch 153 recommends applying "Ethiopian tooth" and realgar directly upon the pain:

Ch 153

³⁵⁰ Also it occurs in Ch 37, Seioν άπυρον. Chassinat 1921: 290.

³⁵¹ Author's own translation.

³⁵² Сf. рот "grow, sprout". Crum 1909: 303b.

³⁵³ Worrell is in doubt about the meaning of this word. It is савинте "foam", cf. Crum 1939: 384b.

³⁵⁴ Author's own translation.

(307) oya epe паац йнециеже †ккас неже йебфф сантарахнс 355 өнөөү ках хрф ерөөү фаүхф //

(307) Someone whose gums have pain: Ethiopia tooth, realgar; crush them well; use them; they will be healed.³⁵⁶

Another recipe offers a powder for gum pain consisting of orpiment, copper mill scale, native sulfur, burnt paper, lead and salt:

Ch 178

(339) ουξυρον ντέλχαρ τον έτβε ννλλέε μν πλαμ ννλλάδα αρκηνικόν σ λεπίτος σ θίου απέρου (340) χαρτής εύρωχ σ μωλήβου σ λλός σ δίουν θνόου κάλως χρώ σ

(339) A powder of paper for teeth and gum of his teeth: Orpiment, copper mill scale, native sulfur, burnt paper, lead, salt, four drachmas of each; crush them well; apply.³⁵⁷

Ch 179

(341) omeoc etbe heypeymoh noyne \bar{n} zacp eypwx 21 mooy xpw \odot

(341) Likewise: For their inflammation: Burnt root of onion and water; apply.³⁵⁸

The following three recipes are classified as 'likewise', therefore, we can assume that they treated the same disease:

³⁵⁵ cantarakeic, σανδαράκη "realgar". It appears as cathrakeic in P.Mich. MS 136, Il. 176–182 (see 7.1.1).

³⁵⁶ Author's own translation.

³⁵⁷ Author's own translation.

³⁵⁸ Author's own translation.

(341) oneoc libanoz $\$ \overline{B} amhllon $\$ \overline{B} opoboy qnooy xpw

(341) Likewise: Incense two drachmas, starch two drachmas, and vetch; crush them; apply. 359

Ch 181

(342) Likewise: White vitriol four drachmas, copper one drachma, vitriol yellow two drachmas, tragacanth three drachmas; crush them with spicy vinegar; apply.³⁶⁰

Ch 182

(343) омеос авестон $\$ $\[\bar{\Delta}\]$ арсунікон $\[\bar{\Delta}\]$ сантарахнс 361 $\[\bar{\Delta}\]$ хр $\[\bar{\omega}\]$ хр $\[\bar{\omega}\]$

(343) Likewise: Quicklime one drachma, orpiment four drachmas, realgar four drachmas; apply. 362

5.5.4 наже роуамоме "Gum's gangrene":

The gums affected by this particular affliction called *Wamome* probably refers to aphthous ulcers.³⁶³ In this case, Ch 159 recommends using ashes of wormwood branches and honey, which should be placed upon the affected area of the gums (see 5.16.15):

³⁵⁹ Author's own translation.

³⁶⁰ Author's own translation.

³⁶¹ Cf. сантарахнс, сатнракевс, σανδαράκη "realgar". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C10404], (last accessed: 18.01.2021). It appeared also as сатнракевс in (P.Mich. MS 136, ll. 176–182) (see 7.1.1).

³⁶² Author's own translation.

³⁶³ Till 1951a: 21.

(305) Oynake teces ex \bar{n} ex ω 21 henine epebopoy³⁶⁴ eqox 21 ciase \dagger enca \bar{n} than effective than (306) etekoyada \bar{e} \bar{n} $\bar{$

(305) A tooth to be removed without pincers or iron: Hellebore of good quality and gall; apply on the part of the cheek where is the molar, (306) that you want to extract, you will be amazed!.³⁶⁵

Ch 184

(344) оүнаахе $\bar{\epsilon_{j}}$ оүфох етресу ехй пеніпе пиооү йпіентно³⁶⁶ хе мараварон³⁶⁷ мооү йошве йфонте (345) оүфи йканфаріс³⁶⁸ оүерфте йоітрепін оувафоуф йагріон өнооү каў таау епна йтноүне (346) йпфох $\bar{\epsilon_{j}}$ тнаахе каач йоуаптрите амагте ймоч йпек†ве йн текуне снау $\bar{\epsilon_{j}}$ оубепн $\bar{\odot}$

(344) A tooth or a molar to remove without the iron: Decoction of the plant called (malabathrum) leaf of Cinnamonum Tamala, the water of Nilotica acacia leaves (345) part of *cantharides*, 'mouse citrus' milk, wild rue; rub them well; put on the root of the molar or tooth; leave a moment; then take the tooth between your finger and the thumb; it will leave quickly. ³⁶⁹

³⁶⁴ Cf. ἑλλέβορος "hellebore". Liddell/Scott/Jones 1996: 535b.

³⁶⁵ Author's own translation.

³⁶⁶ אדאה, פאדאה "plant, herb, weed", Greek: ζιζάνια, Arabic: נפּוֹט, Lolium temulentum L. Crum 1939: 233a. From the Ancient Egyptian אינ היים אינ

³⁶⁷ Cf. μαλάβαθρον "leaf of Cinnamonum Tamala or albiflorum". Liddell/Scott/Jones 1996: 1076b.

³⁶⁸ κανθαρίς, Greek κανθαρίς "beetle; spanish fly, lytta vesicatoria". Liddell/Scott/Jones 1996: 874b. κανθαρίς used also for tumor, abscess in Ch 28 and Ch 150.

³⁶⁹ Author's own translation.

5.6 EYE DISEASES

Eye diseases were one of the most widespread medical conditions attested in Coptic medicine.³⁷⁰ Evidence form Coptic medical texts support Crislip's statement. Additionally, the largest known medical text collection Chassinat Papyrus which contains a total of 237 recipes for the treatment of all body parts, dedicated half of those to eye diseases such as cataracts, short-sightedness, abscesses, inflammation, trichiasis and cicatrized eyelids resulting from trachoma. Shenoute of Atripe (ca. 385-465 AD) specifically mentions eye diseases as among conditions treated in his monastery "Eye remedies had a normal home in monasteries".³⁷¹

5.6.1 βαλ εωε, βαλ ετεωε "Itching eye":

Baλ εως, Baλ ετεως meaning "Itching eye". This disease either affected the eye in general (Ch 102 (see 5.6.2.2), and (Ch 199) or only the corner of the eye κωρν³⁷² ετέως (Ch 190). The following recipes recommend various treatments of powder and collyrium to treat this disease:

Ch 199

(366) ота ере нецвал гиг катніас е ыы е \bar{a} алос амминіакот е \bar{r} өноот калис хри йзтрон \odot

(366) Someone whose eyes are itching: cadmia six ounce, one-ounce pepper, salt ammonia six ounces; crush them well; use in powder.³⁷³

Recipe Ch 190 was recommended to treat itchy corners of the eye, including fog and psora:

Ch 190

³⁷⁰ Crislip 2006: 165.

³⁷¹ Crislip 2006: 167.

³⁷² κωλή, κανθός. Crum 1939: 104a.

³⁷³ English translation by me of the French translation by Chassinat 1921: 299.

(354) Oykollion etbe herlocth hin teywpa hin \bar{n} kwp \bar{n}^{374} etéwr kathiac \overline{B} komeoc $\raightarrow \overline{B}$ qnooy kalwe aay \overline{n} xpw cazoyn \raightarrow cabol

(354) A collyrium for darkening, psora, and itchy eye corners: cadmia eight drachmas, copper four drachmas, (355) aloe two drachmas, opium two obols, Indian spikenard two obols, acacia two obols, gum two drachmas; crush them well; make them a collyrium; use inside or outside.375

P.Louvre AF 12530, Il. 43-58

τέα $\dot{\xi}$ ς ςννβάλ χι αςαπρ αλαπι γ α ςαβάραν γ α καραμβούλ γ α ςακτού ΝΓΦΑΡΟΥ ΝΓΙΙ ΝΟΥΡΕΆΜΑΝ ΕΥΡΑΜΙ ΝΓΦΟΥ ΠΕΥΜΟΟΥ ΝΓΚΑΤΗ ΝΓΚΑΑΥ ΕΙΝ oy[[.]]kw2[[.]]t eykepa nītw2 epoy ekwan nay epoy ea4twc cit νπαέρε εχων νέτως έρου ωλν τευτώς ενεύερην νέσω έκτως έρου ϢλΝΤϾϤΚΒΟ

The itching (?) in eyes: take thick (?) aloe juice: one (ounce) saffron: one (ounce) seasoning. Grind them and pound (?) them; and take a sour pomegranate, pressing its juice, pour it off, put it on mild fire and stir it. When you see that it has solidified, pour the drugs on it and stir it until it is mixed together, and continue stirring until it cools.

5.6.2 **Tearing eyes**:

Excessive tearing is a condition caused by a variety of reasons. It can be a symptom of purulent ophthalmia or glandular blepharitis, both of which cause irritation and inflammation of the eye. These affections were common in Egypt, especially the purulent ophthalmia, which particularly

³⁷⁴ κωρμ is for κωλμ "corner of eye". Chassinat 1921: 295.

³⁷⁵ English translation by me of the French translation by Chassinat 1921: 294-295, with slight modifications.

attacked young children.³⁷⁶ Excessive tearing of the eyes is mentioned in four recipes using different expressions ("νετφογο ρμει είχμη επέκτη" in Ch 6, "νετ†ρμειμ" in Ch 102, γμβλλ εάρχη νηρμ νημογ" in P.Ryl.Copt. 108 Ro, and "μολλγ" in P.Sarga 21, ll. 7-9):

5.6.2.1 истароуо рисі сухну спеснт:

Ch 6

(15) [Омео]с ке екишта енвал еткнк мін нетфоуо рмеі ецинц 377 епеснт ци[онт гар] (16) йтотен амнрас грей каффра 378 грей симпринс грей афра 379 грей алли[нс] 380 (17) өнөөү калшс алу йиурөн хрш ерөөү фауло

(15) [Likewise: other (remedy) for external (use) to eyes that have no eyelashes and for those who leave flow acrid tears; [it has been experienced] (16) by ourselves: starch one scruple, camphor one scruple, myrrh one scruple, antimony one scruple, alo[es]; (17) crush them well; make it powder; apply them. They will be healed.³⁸¹

5.6.2.2 ист+рисін:

Ch 102

(199) оүзүрөн енаноүч фачөерапеүе $\bar{n}\bar{n}$ вал еткик фачтреүка $\bar{g}\bar{k}$ йсервоүге (200) ын нет \bar{g} фг ын нетеренеусшпе оүонт ын нет \bar{g} риен еүнөүте ероч же калів(201)лефалон \bar{g} катніас \bar{g} \bar{a} харкітеос \bar{g} \bar{a} өнөөү калшс гі нөөү гі темжаө (202) кач фантечфооуе калшс тач еуеідос \bar{g} 83 йавабееін еф \bar{q} 4 еүкөллаө \bar{g} 84 йгных (203) тфыс примх

³⁷⁶ Chassinat 1921: 62.

³⁷⁷ χη^q stands for ҳεβ, ὂξυς, aculus, acidus. Chassinat 1921: 62.

³⁷⁸ καθωρα, καφόρα, καφουρα, κάπφουρα, κάμφωρα, Arabic گأور. Chassinat 1921: 62.

³⁷⁹ФФ≤₹≣ХФ, СТІМЕОС. Chassinat 1921: 63.

³⁸⁰ אאλω[μc], άλόη "aloe", it corresponds to the Arabic *şabr* ישיע. באחאף (from Ch 51, 98), באוף (from Ch 12; Ch 41).

³⁸¹ Author's own translation.

³⁸² Calliblepharium "is a dye for eyelids and eyelashes". Sophocles 1900: 622.

³⁸³ ειλος, appears as ειτος in (Ch 109, 1. 232). It means "vessel". Cf. Greek. εἶδος, Liddell/Scott/Jones 1996: 482b.

³⁸⁴ κολλω is the transcription of Arabic *qullah* ...

еүфөф ецовп \bar{n} \bar{n} \bar{n} \bar{n} \bar{n} \bar{n} евох \bar{n} прийх стоц етемха \bar{n} \bar{n} \bar{n} кесоп (204) сайц калфс аац йхүрөн хрф алла йпркац етаго прийх алла кац ецафе йатпе йноц йд й \uparrow ве

(199) A good powder it heals the bare eyes³⁸⁶ - it makes them heal and develop eyelids, (200) itching, and those with thickening of the eyelids and tearing, they call it *kallibléph*(201)*aron*. Cadmia one drachma, white vitriol one drachma; crush them well with water in a mortar; (202) leave until it dries completely; put it in a glass vessel; suspend it in a vinegar pot; (203) bury the vinegar in fresh excrement for seven days. Take it out of the vinegar, and return it to the mortar; (204) mix it well; make it powder. Apply, but do not leave it touch the vinegar; suspend it four fingers high over it.³⁸⁷

5.6.2.3 Ривал сархи ппри приоу:

P.Ryl.Copt. 108 Ro

н sic

цедае едеіне миуцбермун и[ө]е йодва ибевнуй евенедеаве́, фог нодкоді нөе ибисуд екуіла жекурдунан миндыекние жешалде еодани едын бийуйдоод \$ивуу еубун инбиод ибиод, сиод екакашуд едбим, одеидніе

Eyes that begin to exude salt water—Hoopoe's heated blood; a herb named *cardamom*, in the Egyptian tongue *shife*³⁸⁸ which is a tree that grows in mountain regions like a pomegranate tree, its leaves being somewhat long like...... Its wood is like that of the pomegranate.³⁸⁹

³⁸⁵ мҳҳө, мҳҳҳт "mortar". Crum 1939: 214а.

³⁸⁶ i.e. "hairless eyes".

³⁸⁷ English translation by me of the French translation by Chassinat 1921: 219, with slight modifications.

³⁸⁸ "Unknown. Or in Egyptian (it is) the blight (оные, rust) of a tree." Crum 1909: 59.

³⁸⁹ Translation: Crum 1909: 59.

5.6.2.4 MOAAY:

P.Sarga 21, Il. 7-9

ολβαγ єв \downarrow μοσάλ σ με μβα $\dot{\gamma}$ μαβ [σ]κ διμοολ μεμ $\dot{\gamma}$ σην διεβισ $\dot{\gamma}$ ει

An eye that waters: ... of raven's eye (8) and water of onions and honey. Apply (them) to [it ... a goat's gall and honey ... 390

5.6.3 ερεγματικε, ³⁹¹ ρευματίζειν, ³⁹² and ερεγμα³⁹³ "flux, stream, and rheumatism":

The words epequatice or epequa indicate a disease that affected the eye. There are some recipes for treating eye streaming or rheumatism. From the contexts of the recipe, one can assume that it was a disease that caused increased tear production and pain: "In the Coptic recipes, $\dot{\rho} \epsilon \hat{\upsilon} \mu \alpha$ certainly does not mean what we mean by rheumatism today, but an illness that causes secretion, discharge or sputum". The disease is reported as being painful:

Ch 196

(362) ουβάλ εμβάζανιζε κάλος εμό περευμά 395 ουάρτ κρόκου βλλε πτοούχε πτε περοού νες νερότνον θνόου † εχωού ωλύλο ευβ[αζανίζε]

(362) An eye that suffers completely and streaming: rose saffron, yellow egg of the day, rose oil; crush them; put on eyes; they will stop suffering. ³⁹⁶

³⁹⁰ Translation: Crum et al.1922: 52.

³⁹¹ Verb means "suffer from a flux". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C11189], (last accessed: 18.03.2020).

³⁹² Richter 2014: 164. The verb ῥευματίζειν is appeared in P.Heid. G 698c (col. I, l. 9).

³⁹³ греγна from ῥεῦμα. Cf. греγна "flux, stream, and rheumatism". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C11190], (last accessed: 18.03.2020).

³⁹⁴ Till 1951a: 16.

³⁹⁵ Cf. ἡεῦμα "that which flows, current, stream". Liddell/Scott/Jones 1996: 1567b.

³⁹⁶ English translation by me of the French translation by Chassinat 1921:297, with slight modifications.

[2]реүна "flux, stream, rheumatism":

Ch 221

(398) оүколлюн ечнп егршинн оүста‡кон те есријау ене[g]реуна ић ‡аөнсіс (399) тнр ййвал катиіас f крокос f опіоу f f епоуа конеос f ів (400) аккіас f ів өнооу аау f хрш f

(398) A collyrium estimated for (its) strength: it is an astringent useful for streaming and any disease state (399) of eyes: cadmia, myrrh, saffron, opium, four drachmas of each, gum twelve drachmas, (400) acacia twelve drachmas; crush them; make them a collyrium; apply.³⁹⁷

o งิรุрธұма "are streaming":

Ch 220

(396) оүколлюн етве йвал ето йгреүна теүшб ϕ йтеүноү ді нак йнехаүлос йнегноүге (397) өнөү (sic) кал ϕ С ϕ О печнооү каач fО Тгаівес йн оүфни йкниме ааү fО ХРФ ϕ О

(396) A collyrium for streaming eyes; it stilled them immediately them: Take stems of purslane; (397) crush them well; press the juice and place it in the shade with a little gum; make it a collyrium; apply.³⁹⁸

³⁹⁷ "The ingredients are only boiled water mixed with honey and thick *electarium* cooking as possible. Cough, catarrh of the trachea can make the most profit from intestinal catarrh checked by adding the juice of ypoquistidos and Acacias. Meconi black seed can minced with wine drinker's catarrh body and a flow control with water and applied as a poultice on the front and a dream seasons change." Martínez 2018: 102.

³⁹⁸ English translation by me of the French translation by Chassinat 1921: 315.

It occurs also as ερεγματικε (ρευματίζειυ):³⁹⁹

P.Mich. MS 136, ll. 195-198

ογεαβ[λ] είλε ο πτεϊξε εςογεττογωτ ροχ \overline{c} ς τνος ει \overline{c} ταλς ει λιβανος \overline{c} εχνβαλ εγερεγματίζε ςεναλο//

A great (?) lizard: Thus: while it is fresh burn it, grind it up with vinegar, put it with incense. Apply to eyes which suffer from a flux. They will recover. 400

P.TT 157-470, col. i, ll. 8-12

[0ү?колн]ріон фачтрепршне ло еч]фангреунатісе ніо[[ү]]сштідос?] сінрна $(\delta \rho.)$ н кшнешс $(\delta \rho.)$ $(\delta \rho.)$ а кадніас $(\delta \rho.)$ н үініөіоү $(\delta \rho.)$.] ұдшр хрш

[A colly]rium, it makes the man recover (?), if he] has rheumatism: Mouse [ear?-]seed (Dr.) 8, gum [(Dr.) x,...] (Dr.)1, calamine (Dr.) 8, white lead, water; apply.⁴⁰¹

5.6.4 ο mooy ε̄ν ουβλλ "cataract":

Cataract is an eye disease indicating the state of the eye's tissue. A number of recipes, dedicated to this disease, use the term o μοογ, which means "are watery", and which Chassinat⁴⁰² translates into "cataract". The term cataract derives from the Latin *catracta*, ⁴⁰³ meaning "waterfall", and from the ancient Greek καταρράκτης (from καταράσσω) meaning "down-rushing". ⁴⁰⁴ The Latin term *cataracta*, means

³⁹⁹ Cf. ρευματίζειν "suffer from a flux". Liddell/Scott/Jones 1996: 1568a.

⁴⁰⁰ Translation: Worrell 1939: 36.

⁴⁰¹ English translation by me of the German translation by Richter 2014: 161.

⁴⁰² Chassinat 1921: 14.

⁴⁰³ Chassinat 1921: 67.

⁴⁰⁴ Cf. καταρράκτηρ. Liddell/Scott/Jones 1996: 908b.

"portcullis" and "is probably behind the medical sense describing the clouding of lens of the eye. A person's vision is blocked by this condition as if a portcullis had been lowered over the eye". 405

Cataract nowadays refers to "An eye disease in which the clear lens of the eye becomes cloudy or opaque, causing a decrease in vision." ⁴⁰⁶ In Arabic, cataract means المياه البيضاء miah baidaa "white water": "As rapidly running water turns white, so the term may have been used metaphorically to describe the similar appearance of mature ocular opacities". ⁴⁰⁷

In the medical recipes, nothing refers to the nature of the disease or the disease's diagnosis. Accordingly, MOOY is an eye disease that begins with the inflammation and can lead to blindness. It is noticeable that the drugs that were recommended against "water" were usually used against other eye diseases with a quite different composition, as the following recipes state:

Ch 42

(78) ουμοού μιν ουςίου ςιώς νβάμπε ει ερω $^{408}(sic)$ νως εξ νγ τι εροού

(78) A cataract and a blot: Gall of goat and breast milk; apply them. 409

Ch 89

(172) оүнөөү $\bar{\text{n}}$ и оүсюү ец $\bar{\text{n}}$ оүвах копрос 410 йберомпе өнөөү (sic) кахшс гі еціш йатмооү хрш

(172) A cataract and a blot in an eye: pigeon droppings; crush them well with honey without water; apply.⁴¹¹

Ch 91

⁴⁰⁵ Cresswell 2010: p. 76.

⁴⁰⁶ Medicinenet. [https://www.medicinenet.com/script/main/art.asp?articlekey=2645], (last accessed: 19.03.2020).

⁴⁰⁷ Goes 2013: 365.

⁴⁰⁸ ерю, ерюте. Chassinat 1921: 148.

⁴⁰⁹ Author's own translation.

⁴¹⁰ kόπρος. Pliny (XXIX, 8, 6) recommends a gall of pigeon against waterless. Chassinat 1921: 196.

⁴¹¹ Author's own translation.

(176) อүнөөү $\bar{\varrho}$ и оүвах ді нак йоүахханмоүн харменеі 412 тріпоү ймоч кахшс сотч євох (177) $\bar{\varrho}$ й оүстоєіс пмооү єтснає євох й $\bar{\varrho}$ н тач єгоун єкнюю фаччі пмооү $\bar{\varrho}$ й йвах оүтокімон пє

(176) A cataract: take a caraway; crush it well; filter into a cloth the juice which will come out; put it inside, it will remove the water that is in the eye. It's an experienced (remedy). 413

Ch 192

(357) оүколлюн етве псюу йн пнооу үннөюү \mathbf{F} $\mathbf{\bar{f}}$ үсү $\mathbf{\bar{f}}$ $\mathbf{\bar{f}}$ $\mathbf{\bar{f}}$ алос аммшнакоү $\mathbf{\bar{f}}$ $\mathbf{\bar{f}}$ (358) апопанакос $\mathbf{\bar{f}}$ акакілс $\mathbf{\bar{f}}$ хомеос $\mathbf{\bar{f}}$ $\mathbf{\bar{f}}$ онооу алу й $\mathbf{\bar{f}}$ хрш еросу йцшр $\mathbf{\bar{f}}$ йн роуге $\mathbf{\bar{o}}$

(357) A collyrium for the blot and cataract: white lead ½ ounce, copper rust eight (?) ounces, ammonia salt eight (?) ounces, (358) opopanax eight ounces, acacia ½ ounce, and gum ½ ounces; crush them; make them a collyrium, and use for these diseases morning and evening. 415

Ch 204

(371) Omeoc oyeloctn çñ ñbal e, eyo ñmooy ammuniakoy bymimatoc y $\bar{\rm b}$ nitpon , $\bar{\rm b}$ eqid ñathooy xp

(371) Likewise: A mist in the eyes or (eyes) that are suffering from cataracts: ammonia gum two obols, natron two obols, honey without water; apply.⁴¹⁶

⁴¹² ΝΟΥΔΧΧΑΜΗΟΥΝ ΧΑΡΙΘΝΕΙ "cumin: Sinot", Arabic: الكمون الكرماني "الكراوية", Greek καρμανία, and Persian Zira يره. It is a karmani and is called الكمون العرماني "means "royal". "Dioscorides says that cultivated (Cumin) is flavored with taste, and in particular karman." Abd al-Razzaq (p. ١٣١٥) argues that Cumin karmany is "Carvi" and "Cardamine" الكمون الكرماني وهو الكراويا إلى الكراويا وهو الكراويا الكراويا وهو الكراويا وهو الكراويا وهو الكراويا وهو الكراويا الكراويا وهو الكراويا وهو الكراويا وهو الكراويا وهو الكراويا ا

⁴¹³ English translation by me of the French translation by Chassinat 1922: 197.

⁴¹⁴ Chassinat thought that it is regularized cursive form of the number 8. Chassinat 1921: 295.

⁴¹⁵ English translation by me of the French translation by Chassinat 1922: 295.

⁴¹⁶ English translation by me of the French translation by Chassinat 1922: 300.

(372) oneoc equo \bar{n} athooy choe \bar{n} zowe \Re

(372) Likewise: Honey without water, calf's gall; apply. 417

Recipes Ch 204 and Ch 205 present alternative remedies for treating the darkening of the eye in recipe Ch 203, which may be the symptoms of a cataract.

5.6.5 พองุทรองุท "Inner-water/ cataract":

A similar disease meaning "inner-water" appears in (Ch 12, Ch 56, Ch 165). Ch 12 and 56 (previously mentioned) detail remedies that were also used for other eye diseases and contain similar drugs in such cases. A special remedy is described by Ch 165, which consists of the gall of two unknown animals, papyrus ash and honey:

Ch 12

(27) оүзүрөн бүнөүтб броц хө өүсісе каламів⁴¹⁸ сүмбөс феүнег фітраб гічті⁴¹⁹ (28) сінбіпіл⁴²⁰ ноуфатер роунпа. халкос . Сапір өөүөів⁴²¹ оуа біоуа крокос $\mathbf{5}$ в (29) ыы $\mathbf{5}$ дар**вохвох** $\mathbf{5}$ өнөөү калфс аач йзүрөн ті бгоун бівал оуй оүнөб (30) йбөн йгнтіц бірпагре біфше нін бітін нівал ійн піноүнгөүн (31) [ійн] нетф йкаке ійн неткін ійн і[єт хрф саго]үн йнвал

(27) A powder called Sise kalamié: Antimony, hematite, Indian lepidium

(28) ginger, salt ammonia, storax (?), copper, aloes, zinc oxide, same

⁴¹⁷ English translation by me of the French translation by Chassinat 1922: 301.

⁴¹⁸ Cf. cice "term for an eye powder". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C3751], (last access: 21.03.2020).

⁴¹⁹ დ)ττρλο ϩντί, Arabic šīṭarağ hindi شِيطْرَجْ هِنْدِيْ. Chassinat 1922: 92.

⁴²⁰ For the Arabic word zanjabīl زَنْجَبيل. It is found also in Ch 11 and Ch 49.

⁴²¹ Θογοιε, Θογοια is an Arabic loan word *tütiyä بوتيا* Till 1951: 67. Richter 2014: 180.

amount of each, saffron two obols, (29) pepper ½ drachma, long pepper ½ drachma; crush them well; do it in powder; apply to the interior of the eyes. There is a great power (30) in it. It heals all eye diseases and eyes with inside water (cataract), (31) [as well as] those which became dark or whose eyelids have no eyelashes and those [who are; used in the interior of the eyes. 422

Ch 165

(323) оү
а ере нецвал оүй ноүй
е́о́үн сіфе й
ент̄с 423 сіфе йер
ғої евіф к̄рмес йхартн
с йдіератікон х̄р

(323) Someone whose eyes have cataract: Gall of ichneumon (?), gall of chicken, honey, hieratic paper ash; apply. 424

5.6.6 ctoy "spot or blot":

cιογ is an eye disease, meaning "spot" or "blot". 425 Chassinat 426 translates the term into "taie" (leukom, Albugo), which is supposedly the translation of the Arabic term ≥ kawkab "star". cιογ presumably refers to the scars on the cornea. It is noticeable that all treatments used against the "star" were also used to treat "water" disease, like (Ch 7, Ch 42, Ch 52, Ch 53, Ch 56, Ch 87, Ch 89 and Ch 192). In addition, Ch 202, in which only "star" is given as an illness, the medicament is completely identical with Ch 89 (see 5.6.4) in which both terms "water" and "star" are given:

Ch 7

(18) ουκολλίον έτβε νβάλ έτω μμοού μν νέτω νζιού κικίς $\$ $\$ δ οβέν $\$ δ καλακαν[θος $\$.] (19) ακακίας $\$ $\$ δ θνοού αλύ νκολλίον χρω $\$

⁴²² Author's own translation.

⁴²³ gHr̄c, Crum, and Chassinat didn't know the exact meaning of this animal. Chassinat supposed that it is derived from ichneumon (?). Chassinat 1921: 283.

⁴²⁴ English translation by me of the French translation by Chassinat 1922: 283.

⁴²⁵ Crum 1939: 368b.

⁴²⁶ Chassinat 1921: 67.

(18) A collyrium for eyes with cataract and those who are affected by blot: Castor two drachmas, two drachmas alum, vitriol [blue drachma ...] (19) acacia two drachmas; pound them; make them a collyrium; apply.

P.Louvre AF 12530, recipe no. 20, ll. 22-32

оүпагре ивах оүкиние оүсюү [[au]] дшвре ихеүкшна $\mathbf{e}^{\mathbf{T}\mathbf{A}\mathbf{P}\mathbf{Q}}$ фатаи $\mathbf{e}^{\mathbf{Q}}$ фатаи $\mathbf{e}^{\mathbf{Q}}$ и ишр соүмпоүр өөүөіа \mathbf{e}^{427} паср екоүршр хоухоу иатөшт \mathbf{e}^{428} $\mathbf{e}^{\mathbf{Q}}$ бапаө аттагап \mathbf{e}^{429}

An eyes remedy, (against) "darkness", "star", cold (? - or: red) ... (?) of leukemia, hematite one (ounce), myrrh, nard, zinc oxide, coral seeds (?), unpierceable pearl, gold slag.⁴³⁰

Ch 52

(99) Oheoc etbe gigne nih etzn nbla ei cioy ei hooy ei aay nzoyo kathie $\[\]$ $\$

(99) Likewise: for all the diseases which in the eyes, blot, or cataracts, or fleshy growth: Gold cadmia ten drachmas (100), copper five drachmas, myrrh one drachma, saffron twenty drachmas, opium ½ drachma, roses ½ drachma, white gum five drachmas; (101) crush them well; make them a collyrium; apply for them (eye diseases).⁴³¹

Ch 53

427 θογοια, θογοιε is an Arabic loan word tütiyä με Till 1951: 67. Richter 2014: 180.

⁴²⁹ Arabic habat al-dahab جبات الدهب, and it is synonym for "Gold-cadmium". Richter 2014: 180.

⁴³⁰ English translation by me of the German translation by Richter 2014: 178.

⁴²⁸ λογλογ Arabic بولو (unpierceable pearl) اللؤلؤ غير المثقوب. Other medical recipes used pearl Ch 46; Ch 53. Chassinat mentioned that pearls are often found in eye remedies among Arabs as in Ibn Sina. Chassinat 1921: 152. The unpierceable pearl used in medical recipes for eye diseases: Eyeliner for tearing eyes Ibn Sina 1593, III: 252; to strengthen eyesight and for tearing Ibn Sina 1593, III: 252; it benefits as a remedy for pregnancy and uterus Ibn Sina 1593, III: 575.

⁴³¹ English translation by me of the French translation by Chassinat 1922: 158, with slight modifications.

(102) Likewise again another (remedy) of the same kind: Antimony ten drachmas, pyrite five drachmas, zinc oxide three drachmas, cadmia a drachma (103), pearl three drachmas, hematite twenty drachmas, and saffron one drachma; crush them well; through a sieve; put in a mortar; (104) sprinkle materials with wine in the mortar for twenty-eight days leave until it is dry; make it powder; apply to sick eyes (105) morning and evening. Do not neglect it. It is thoroughly tested. We tried it successfully.⁴³⁴

Ch 87

(168) оүхүрөн енаноүч ефшие нін ет \bar{z} й йвах \bar{e} і нооү \bar{e} і сіоү \bar{z} іхіх \bar{s} \bar{r} ноүфа \bar{t} р \bar{s} \bar{s} (169) \bar{z} аүхен \bar{z} \bar{r} бы \bar{z} \bar{z} \bar{z} \bar{z} \bar{z} \bar{z} өнооү ааү йхүрөн \bar{z} тарвоү \bar{z} ерооү йфшр \bar{z} п йн роүге

(168) A good powder for all eye diseases, that are in the eyes, ⁴³⁵ cataracts or blot: Myrobolan yellow six drachmas, ammonia salt ½ drachma (169) khulan three drachmas, pepper ½ drachma, and a long pepper one drachma; crush them; make them powder; and apply to them in morning and evening. ⁴³⁶

⁴³² Θογοια, Θογοιε is an Arabic loan word *tütiyä* بوتيا. Till 1951: 67. Richter 2014: 180.

⁴³³ πολπχ, κλοκογ, κροκογ, κρόκος. Chassinat 1921: 154.

⁴³⁴ English translation by me of the French translation by Chassinat 1922: 158-159, with slight modifications.

⁴³⁵ It refers to the internal diseases.

⁴³⁶ English translation by me of the French translation by Chassinat 1922: 193, with slight modifications.

(357) оүколлюн етве псюу $\bar{\mathbf{n}}$ н пнооу үннөюү \mathbf{f} \mathbf{j} үсү \mathbf{f} \mathbf{k} \mathbf{j} алос аммшнакоү \mathbf{f} \mathbf{k} (358) апопанакос \mathbf{f} \mathbf{k} акакілс \mathbf{f} \mathbf{j} комеюс \mathbf{f} \mathbf{j} өнооу алу \mathbf{n} хрш ерооу $\bar{\mathbf{n}}$ шршр $\bar{\mathbf{n}}$ нь роуге

(357) A collyrium for the blot and cataract: White lead ½ ounce, copper rust eight (?) ounces, ammonia salt eight (?) ounces, (358) opopanax eight ounces, acacia ½ ounce, and gum ½ ounces; crush them; make them a collyrium, and use for these diseases morning and evening. 438

For eye diseases such as the "star" only Ch 202, Ch 207 and Ch 208 come into consideration, as they provide differing treatments: one is with water and one is without. Ch 202 consists of pigeon droppings and honey. Ch 207 consists of milk, boiled cucumber juice, and honey. In Ch 208: "the ash of the right claw of a donkey and triturated with honey or water" is used:

Ch 202

(369) Oybal eyw \bar{n} cioy konpoc \bar{n} 6epwhie ebiw \bar{n} atmooy xpw \odot

(369) An eye that affected by a blot: Pigeon droppings, honey without water; apply.

Ch 207

(374) ουβάλ εμω ναίου ερώτε μοού νώσβε εμλέομ εμάνη εμών νατμοού \uparrow εροού ώδυλο \odot

(374) An eye that affected by a blot: Milk, pure boiled cucumber water, honey without water; apply to them, they will be healed. 439

⁴³⁷ Chassinat thought that it is regularized cursive form of the number 8. Chassinat 1921: 295.

⁴³⁸ English translation by me of the French translation by Chassinat 1922: 295.

⁴³⁹ English translation by me of the French translation by Chassinat 1922: 301.

- (375) Omeoc on X1 nak ūtiicių 440 ūttiat 441 ūdynam ūceiw pwxų onooų 21 eqiw natmody xpw ©
- (375) Likewise again: Take the hoof of the right paw of an ass; burn it; crush it with honey without water; apply. 442

5.6.7 γλοςτη "Mist":

ελος τη was an eye disease described as a "mist" in the eye or the eye being ο πελος τη the eye "misty/darkened". The promise of the remedy's success is shown in Ch 8 using the expression: ρ̄ ογοειη καλως "beautiful light," i.e. see well, and ηναειορε "He (the patient) will see (again)" (Ch 188). Crum⁴⁴³ indicates that, in a passage in an unpublished texts, μογηεογη "internal water" is a variant of ελος τη: 444

Ch 8

(19) оүгдости ги оүвал ерште йшв йсіше (20) λ к ϵ лш⁴⁴⁵ оүші епоүа махкоү⁴⁴⁶ йльө**хөо** мін оулыр шын ϵ с⁴⁴⁷ таач еүеідос (21) йава бееін й оүеі[дос й...... nг ті] енвал фауроуосін калшс

(19) A mist in an eye: Wild lettuce milk (20) opium, even the weight of each, mixed with manna, put into a vial (21) or a glass [jar ... use] to eyes, they will be light well. 448

euq for eieb, eib hoof, claw. The hoof of the donkey, used as well in Arabic medicine and mentioned by Ibn Al-Baitar, حمار اهلی the buried hoof of the donkey has been used for treating epilepsy. Ibn Al-Baitar: 159.

⁴⁴¹ TIAT, Paper (Pap. Ebers, LXXVII, 16). Calcined donkey hoof appears in Ebers papyrus (LXV, 21):

⁴⁴² English translation by me of the French translation by Chassinat 1922: 302.

⁴⁴³ Crum 1939: 271b

⁴⁴⁴ Till 1951a: 18.

 $^{^{445}}$ aksam, ofton.

⁴⁴⁶ μαχκ for μοχο "mix" or "mingle".

ه كا كا كا Arabic sheer Asal شير عسل Chassinat 1921: 78. شير عسل 447 مايل

⁴⁴⁸ English translation by me of the French translation by Chassinat 1922: 71, with slight modifications.

(241) OYA EPE NEUBAN $\overline{0}$ NZNOCTEN CIQ) NOOHBQ HOZE 449 EYIQ NNOYZE MMOY 450 Taroy win negerny xrw

(241) Someone whose eyes become misty/ darkened: Gall of black labis, sycamore robs, and fennel water; mix them; apply. 451

Ch 188

(352) ουρλοςτίν είν νβάλ πευπάρ νουτράκον μιν πευςίως μιν ουρείω Θy ΜΜΟΥ ΝΉΣΤΟΥ ΝΓ ΠΙΡΧΙΝΕ ΝΝΕΥΒΑΆ ΣΝ ΠΕΌΝΟΥ ΝΠΕΤΡΑΚΟΝ ΥΝΑΙΟΡΣ

(352) A mist in the eye: The liver of a goat, its gall and honey.... to him (the sick?) with them and rubbed its eyes with the blood of the goat; he will see. 452

Ch 194

(360) Oybal eyo ñ2locten mh ñgingloy ciwe ñoohbw noz 453 mooy $\bar{N}BA(Q)OY(Q)$ $\bar{N}A(Z)$ TAPOY KA) XP(Q) O

(360) An eye that becomes misty: Bat's urine, gall of black labis, wild rue juice, mix them well; apply. 454

че ноөнвю по≡, давнс кане. *Cyprinus niloticus, lbs*, from the Ancient Egyptian □ (Arabic أبيس , Arabic أبيس , Arabic أبيس أبيس .

⁴⁵⁰ **дожоо** , фанал (фанар). Chassinat 1921: 237.

 ⁴⁵¹ English translation by me of the French translation by Chassinat 1922: 236, with slight modifications.
 452 English translation by me of the French translation by Chassinat 1922: 294.

⁴⁵³ Йоонво поха, хавус каме. ليس Hieroglyphic של which is preserved in the Coptic хегуи. Chassinat 1921: 236-237. Cf. Leige "fish cyprinus niloticus". Crum 1939: 148b.

⁴⁵⁴ English translation by me of the French translation by Chassinat 1921: 296, with slight modifications.

(361) Omeoc ciase ñsine ūbampe hec why also taken taken with negret cross taken Tacoy value $\text{Ta$

(O)

(361) Likewise: Liquid gall (?) of goat, honey without water; mix them together; and apply.⁴⁵⁶

5.6.8 There are a number of preserved recipes that intend to strengthen one's vision. Various expressions were used to express the effectiveness of such treatment for example φαστρε πογοεια χωτε "it causes the light penetrates" and ρ̄ ογοεια (καλως) "be light/shin (well)"; or φαστρεπογεια χωτε αφρ ογοεια καλως "it causes the light penetrates and shines well", in regards to a collyrium (Ch 51). This expression gives the impression that one may have weakened eyesight due to the lack of light passing through the eye:

Ch 51

(97) оүколлюн енаноүс калшс фастре поүоеін хюте пфроуоеін калшс сераоуалт 457 \raiseta \ddot{i} (98) меніөа 458 \raiseta \ddot{i} шөквр 459 \raiseta \ddot{i} калаканоос 460 \raiseta \ddot{i} \ddot{k} хрш

(97) A very good collyrium, it causes the light to penetrate and shine well: Aristolochia ten drachmas (98) glaucium ten drachmas, aloe ten drachmas,

⁴⁵⁵ ≡н с шөүҳхх, євю ñатнооу. Chassinat 1921: 296.

⁴⁵⁶ English translation by me of the French translation by Chassinat 1921: 296.

⁴⁵⁷ cepaoγaν̄τ "aristolochia", Arabic زَرَاوَلُد Jibn Al-Baitar mentioned that the name aristolochia derived from Aristos meaning "best", and lochia which means "postnatal", so he wanted to refer to it with "the best in the benefit to postnal" الفاضل في المنفعه للنفساء "Also, he mentioned three different types of aristolochia; the round αλιστολοχία زراوند مدحرج pioscorides mentioned that long aristolochia is effective against toxic substances, useful for removing the blood from uterus after birthing, and for postpartum. Ibn Al-Baitar: 249.

⁴⁵⁸ меню», Arabic mamitha مَامِينًا Ibn Al-Baitar: 485; Abd Ar-razaq: 155, calaucium corniculatum L. This word is found in specified spelling мамююм in the Bohairic scala. Chassinat 1921: 157.

⁴⁵⁹ фөквр, сапнр, Arabic sabr صَبِر.

⁴⁶⁰ καλακανθος, χαάλκαυθος.

⁴⁶¹ πολπχ, κλοκογ (κροκογ), κρόκος. Chassinat 1921: 154.

blue vitriol twenty drachmas, saffron twenty drachmas; crush them; make them a collyrium; apply. 462

Ch 54

(106) Омеос фачтре йвах рочовін калюс катмів \mathscr{O} с†меос лас йвіом галесочи (107) фімівіон гмоч перо біл далвохвох каланвох очфі впоча ноуфатне й \mathscr{O} (108) внооч фаффон дау йхурон $\mathsf{†}$ врооч фафло

(106) Similar: it makes eyes shine good/see well: Gold cadmia, antimony, cuttlefish bones, snail, (107) white lead, royal salt, pepper, long pepper, cloves, same weight of each, ammonia salt.....; (108) crush them; sift them, make them powder; and give them, they will recover.⁴⁶³

Ch 203

(370) ογα ντε (sic) νεμβάλ ρογούν κάλως $ciqe^{464}$, \bar{a} αποπανάκος , \bar{a} θνοος vνν νεγρης (sic) αρω عرفه هنس

(370) Someone whose eyes shine well:⁴⁶⁵ tar resin one obol, opopanax one obol; crush them together; apply. The experienced John.⁴⁶⁶

5.6.9 There are two important recipes expressively stating that they promote distance vision. The first (Ch 78) consists of burnt copper, hammered copper, nard and peppers. The second (Ch 88) includes dry leaves of a plant called Kos mixed with ground soda and old wine:

⁴⁶² Author's own translation.

⁴⁶³ English translation by me of the French translation by Chassinat 1921: 159, with slight modifications.

⁴⁶⁵ Chassinat argues that it is not clear and he translated it into "someone whose eyes do not shine well", as ν̄τε is for ν̄τλ ... λν.

(168) A good powder for all eye diseases, cataracts or pillowcase: Yellow myrobalan six drachmas ammonia salt ½ drachma (169) Lycium three drachmas, pepper ½ drachma, long pepper drachma; crush them; make them powder; give them in morning and evening.

Ch 88

(170) ดүҳүрөн єфацтре йвах роуосін йсенау євох \overline{g} й поує йкоуі \overline{h} й йноб бшве йкос (171) етфооує $\$ \overline{p} к улшвх 469 $\$ \overline{a} өнөөү калшс \overline{g} і н \overline{p} п йапас $\$ ерөөү йфшр \overline{n} \overline{h} й поусе

(170) A powder, which makes eyes shine, and see by far the small (objects) and the big ones: *kos* leaves (171) dry hundred twenty drachmas, soda one drachma; crush them well with old wine; give them in morning and evening.⁴⁷⁰

5.6.10 bal kake of kmhme "Eye darkness":

Eye darkness was a disease afflicting the eyes, which may refer to the poor-looking eyes, or partial or total blindness. There were two idioms used for eye darkness. After the treatment, according to recipes, the eyes will "shine/see well":

⁴⁶⁷ The word gialao is an Arabic word written with Coptic letters, Arabic *hlilj*. There are many types of myrobalan, the yellow, red, and black. Cf. Ibn Al-Baitar: 594.

⁴⁶⁸ ξαγλεν, χαυλέν, and the Arabic *kholan* خولان. Chassinat 1921: 193.

⁴⁶⁹ уховя for госны. Chassinat 1921: 195.

⁴⁷⁰ English translation by me of the French translation by Chassinat 1921: 195.

(24) оүзүрөн енаноүч енвал паүрак арменеі 471 у ї үіміөіоү у $\overline{\text{в}}$ ыы у $\overline{\text{а}}$ сінбіпіл 472 у $\overline{\text{a}}$ (25) х $_{5}$ х $_{5}$ амелоу у $\overline{\text{в}}$ у ноуфат $\overline{\text{p}}^{473}$ у $\overline{\text{a}}$ өнөөү калшс флффроу $\overline{\text{e}}$ н оусор $\overline{\text{q}}$ ечфоне (26) $\overline{\text{n}}$ г ті е $\overline{\text{n}}$ вал ет $\overline{\text{m}}$ йкаке фауроуоеін калшс

(24) A good powder for eyes: Armenian borax ten obols, ceruse two obols, pepper one obol, ginger one obol, (25) verdure 2/3 of obol, starch two obols, salt ammonia one obol; crush them well; sifts with a fine sieve. (26) Apply to eyes that are darkened, they will be light well.⁴⁷⁴

Ch 85

(166) оүвал ечо йкаке 475 пальф йалеү гітч гі мооү гіл [о]үакшие 476 хрш

(166) A dark eye: White costus; crush it with water in a hone-vessel; apply.⁴⁷⁷

P.Louvre AF 12530, recipe no. 20, ll. 22-32

оупарре ивах оукиние оусюу [[т]]дфвре ихеукфиа $\mathbf{e}_{\mathbf{T}}$ $\mathbf{p}_{\mathbf{F}}$ α ифр $\mathbf{g}_{\mathbf{T}}$ соунпоур өоүөіа $\mathbf{e}_{\mathbf{T}}$ паср екоурфр хоухоу иатбф $\mathbf{e}_{\mathbf{T}}$ $\mathbf{e}_{\mathbf{T}}$

⁴⁷¹ παγρακ αρμένει, Arabic بَوْرَق أَرْمَنِي. Chassinat 1921: 89.

⁴⁷² כואסוווא, Arabic *zanjabīl* ذَنْجَبيل. It appears also in Ch 12 and Ch 49.

⁴⁷³ Νογοράτρ, Arabic *nušādir* نُشادِر. Chassinat 1921: 90.

⁴⁷⁴ English translation by me of the French translation by Chassinat 1921: 89.

⁴⁷⁵ Πχωή, κογωτ. Chassinat 1921: 192.

⁴⁷⁶ ακώνε "akone-vessel", "hone-vessel", Greek ἀκόνη "whetstone, hone". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C8168], (last accessed: 26.03.2020).

⁴⁷⁷ English translation by me of the French translation by Chassinat 1921: 192.

⁴⁷⁸ θογθια, θογθιε is an Arabic loan word tütiyä بوتيا Till 1951: 67. Richter 2014: 180.

⁴⁷⁹ Arabic *habat al-dahab* حبات الدهب, and it is synonym for "Gold-cadmium". Richter 2014: 180.

An eyes remedy, (against) "darkness", "star", cold (? - or: red) ... (?) of leukemia, hematite one (ounce), myrrh, nard, zinc oxide, coral seeds (?), unpierceable pearl, gold slag.⁴⁸⁰

5.6.11 ογρωμε ευχωρέ an 21 ρογεε "Man who does not see at evening":

A man who does not see at evening, thus "the night blindness" it was an eye ailment. Ch 201 is a recipe prescribed to cure the night blindness:

Ch 201

(368) ούρωμε είδωρς αν δι δούδε μοού νήθε μη ναφθαρτος 481 μες νεήβαλ νέας νέου ηναδωρς κάλως

(368) A man who does not see in the evening: leek juice, uncorrupted urine; filled-in his eyes frequently, he will see well. 482

5.6.12 пвах $20\overline{xq}$, 2068, 2068, 2069 "decaying of the eye":

The expression βλλ 20xq means "decaying, spoiled, withered eyes", and refers to the severe form of purulent ophthalmia. 483 Ch 20 offers a medical prescription for treating this disease:

Ch 20

(43) [оүйпластрон өтве т]оүамсір йн пвал гох \overline{q} йн нефф йн саф нім ейнрф йгнтоү (44) [......] \overline{r} \overline{b} λ [$\overline{\theta}$ λ] \overline{p} [..]күрон \overline{r} \overline{b} алос \overline{r} \overline{a} ноүлаг \overline{r} \overline{b} піс кіів; \overline{r} пиоүл \overline{z} (45) [$\overline{\theta}$ λ] петфооує гі темхаг \overline{r} гі гих калф \overline{u} калф \overline{u} тагоу \overline{u} самоу \overline{u} неуєрну калф хр

⁴⁸⁰ English translation by me of the German translation by Richter 2014: 178.

⁴⁸¹ αφθαρτος derives from the Greek ἄφθαρτος, cf. αφθαρτον "uncorruptible, immortalone". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C8558], (last accessed: 24.08.2020). мн йафθαρτος "uncorrupted urine", and мнин йкоүї иорнре "child's urine" (Ch 176) have a common use in medicine, as well as in alchemical operations, "it presumably acted as a source of alkaline phosphates and ammonia, resulting from the breakdown of urea." Berthelot: 310; Chassinat 1902: 290.

⁴⁸² English translation by me of the French translation by Chassinat 1921: 299.

⁴⁸³ Chassinat 1921:108.

(43) [A plaster for] melanose, and decaying of the eye, vesicular rash, and every uncorrupted sore (44) two ounces, litharge (?) two ounces, salt an ounce, six ounces wax, oil a pound; cook with oil wax; (45) [pound] the dray materials in a mortar with good vinegar; add them (in oil and the wax) (46); mix everything well together; and apply.⁴⁸⁴

5.6.13 ογπτηρικον ετβε νβαλ "Pterygium of eyes":

ογπτηρικον ετβε ν̄βελ is an eye disease. πτηρικον⁴⁸⁵ derives from the Greek word πτερύγιον.⁴⁸⁶ Chassinat⁴⁸⁷ argues that there is no equivalent remedy in Greek medicine. If the text was correct, it would be a sort of small plaster. But he rather suspected that the passage was corrupt and should instead ογπτηρικον ετζεν ν̄βελ "Pterygium (πτερύγιον) in eyes". In this case, it would refer to an infection of the conjunctiva, which is known as a pterygium:

Ch 128

(267) оүптнрікон єтвє \bar{n} вал катніас \r \bar{b} нараваюрон 488 \r $\bar{\Delta}$ алос аммоніакоу \r \bar{a} халкос \r \bar{a} хрф

(267) A pterygium for eyes: cadmium two drachmas, malabathrum leaf of Cinnamonum Tamala four drachmas, ammoniac salt one drachma and copper one drachma; apply.⁴⁸⁹

5.6.14 βλλ ετπορξ "wounded" or "injured eyes":

Ch 143

⁴⁸⁴ English translation by me of the French translation by Chassinat 1921: 105.

⁴⁸⁵ Cf. птнрікон "pterygium" (disease of the eye when a membrane grows over it from the inner corner). Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C10377], (Last accessed: 21.03.2020).

⁴⁸⁶ cf. Πτερύγιον "small wing; anything like a wing". Liddell/ Scott 1996: 1547a.

⁴⁸⁷ Chassinat 1921: 257.

⁴⁸⁸ it occurs as малаваерон in Ch 143 (see section 5.6.14).

⁴⁸⁹ English translation by me of the French translation by Chassinat 1921: 257.

(290) оүколлюн етве йвал етпор \bar{e}^{490} ийн нето йкаке ийн неткик катміас \bar{e} халкос \bar{e} \bar{a} (291) крокос \bar{e} \bar{a} нартос \bar{e} ос \bar{e} \bar{b} дигіон \bar{e}^{491} \bar{e} синринс \bar{e} \bar{e} 2000 неар \bar{e} лії \bar{e}^{492} \bar{e} \bar{e} с†иєос \bar{e} \bar{a} (292) комеос \bar{e} \bar{e} өнооү ийн неүернү (?) калше ааү й хрш ерооү \bar{e}

(290) A collyrium for wounded eyes, for those with darkness and those who have no eyelashes/bareness: cadmia one drachma, copper one drachma, (291) saffron one drachma, lemon grass two drachmas, lycium three drachmas, myrrh two drachmas, leaf of Cinnamonum Tamala three drachmas, antimony one drachma, (292) and gum two drachmas; crush them well together; make them a collyrium: use for them.⁴⁹³

5.6.15 βλλ ετ†κκλς "Eyes that give/have pain":

Some patients also complained about eye pain, and some recipes recommended remedies against eye pain, without further description or mentioning of symptoms of the disease such as Ch 95 which prescribes the trickling of human milk and donkey milk into the eyes (see 7.9.2). Also, Ch 48 recommends trickling the painful eyes with triturated saffron-root crushed with water, copper, and opium, and Ch 86 prescribes an ointment composed of opium, acacia and water, which could also to be used against temple pain and all painful eye diseases:

Ch 48

(90) оүпагре енті миоц сагоун енвал ноүне йполп x^{494} \r \bar{a} екгі ймоц гі мооу (91) харкос екгі ймоц гі мооу \r \bar{a} опіон екгі ймоц гі мооу \r \r \r евал нім етффне ет \r тккас

⁴⁹¹ ληγιον, λύκιον "dyer's buckthorn, lycium, Rhamnus petiolaris". Liddell/Scott/Jones 1996: 1064b.

⁴⁹⁰ πορε for πωλε "wound".

⁴⁹² етпор ҳоооноҳрҳш, маҳавҳором, μαλάζαθρον (Dioscorides, I, 12). Chassinat 1921: 268. Cf. μαλάβαθρον "leaf of Cinnamonum Tamala" or "albiflorum". Liddell/Scott/Jones 1996: 1076b; Cf. маҳавҳором, "leaf of Cinnamonum Tamala". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C9694], (last accessed: 18.01.2021).

⁴⁹³ English translation by me of the French translation by Chassinat 1921: 268, with slight modifications.

⁴⁹⁴ πολπχ, κλοκογ (κροκογ) μρόμος. Chassinat 1921: 154.

(90) A remedy that is administered in the eye: A bulb of *Crocus saticus* one drachma crush it with water, (91) copper, crush it with water, one drachma, opium, and crush it with water, ½ drachma. Apply to any diseased and painful eyes.⁴⁹⁵

Ch 86

(167) оүвах ең \dagger ккас ий генснау опион хиегре йфонте өнөөү оүофмоү ги мооу хахе ерөөү фаухо

(167) An eye and temples that suffer from pain: Opium, acacia pods nilotica; grind them; knead them with water; anoint them, they will recover. 496

5.6.16 zenbal egamates crossed eyes":

The verb εγφωστ (cωσ̄τ) with or without εβολ means "hindered" or "impeded", ⁴⁹⁷ especially in the sense of movement; one could imagine it as some sort of paralysis. ⁴⁹⁸ Chassinat ⁴⁹⁹ translates it into "clos", and assumes that εεηβωλ εγφωσ̄τ εβολ means "eyes closed to the outside". The diagnostic sign drawn by this sentence immediately suggests a symptoms of glandular blepharitis. We know that in this condition, during the inflammatory process, the hair glands of the eyelids and the meibomian glands abundantly secrete a thick, yellowish material that attaches to the eyelashes and binds them together. The adverb εβολ attaches to φρώστ in Ch 97. In this case the occlusion occurs externally, which is, in fact, a consequence of the discussed catarrhal flow of which "the secreted humor, drying out in the air, forms a crust and prohibits the free play of the eyelids": ⁵⁰⁰

Ch 97

⁴⁹⁵ English translation by me of the French translation by Chassinat 1921: 154-155.

⁴⁹⁶ English translation by me of the French translation by Chassinat 1921: 193.

⁴⁹⁷ Cf. соорт, Crum 1939: 377b.

⁴⁹⁸ Till 1951a: 19.

⁴⁹⁹ Chassinat 1921: 208.

⁵⁰⁰ Chassinat 1921: 208.

(190) генвал еүфффт евол хі нак йоүкоүї йпрув ϖ^{501} гітоүфч йоүгрф йаф (191) йг алүй \wp йг піріхе йнооү сенало тахн

(190) Closed eyes: take some ashes from the hearth (?) of a furnace; (191) make it a collyrium; stretch it around the eyes, they will be healed quickly.⁵⁰²

5.6.17 pot boyee "growing eyelids":

According to Crum,⁵⁰³ the meaning βογεε is "eyelid" and corresponds to the Greek term βλέφαρον subsequently "eyelash". Various recipes were prescribed for helping the eyelids "βογεε" to grow "ρωτ"; the effectiveness of the remedy appears in various results described as ρωτ ͽκεcοπ "grow again" (Ch 101), ρ̄ βογεε "develop eyelids" (Ch 102 (see 5.6.2.2)) and ρωτ βογεε "bring forth/grow eyelids" (Ch 107):

Ch 101

(197) **СЕТВЄ** генвоүге еүо йлепселепсе 504 екоүшш треүршт калшс еүфорвіоү (198) гі книне йш \overline{q} т синринс гі улшв \overline{z}^{505} піші йоүшт йг р χ оү 506 йг өнооү хрш сенаршт йкесоп

(197) For eyelids that are broken/cracked,⁵⁰⁷ you wish to cause them to grow well. Spurge (198) and goose fat, myrrh and soda in equal parts. Burn it, rub it, and apply them. They will grow again.⁵⁰⁸

⁵⁰¹ прѯ**≡**ю, крмєс. Chassinat 1921: 208.

⁵⁰² English translation by me of the French translation by Chassinat 1921: 208, with slight modifications.

⁵⁰³ Crum 1939: 48a.

⁵⁰⁴ λεπιεελεπιεε, such term is not found elsewhere, it supposed to be related to λεπιεεε "fragment, small portion". The following sentence εκογισιο τρεγριστ, and the given remedy indicates that it is a disease that cause the lashes to fall or break because of eyelids ptilosis, which has called the apparent condition κακβάλ, βάλ ετκηκ, βάλ κηκ. Chassinat 1921: 217.

⁵⁰⁵ ухова, госны. Chassinat 1921: 218.

⁵⁰⁶ Px= Pax. Chassinat 1921: 218.

⁵⁰⁷ Cf. λε**γ**ε, Crum 1939: 144a.

⁵⁰⁸ My English translation from the French translation by Chassinat 1921: 216-217, with slight modifications.

(220) ογα έρε νέμβαλ κηκ έκουως έτρευρωτ βούζε καλμίας $\ \overline{\mathbf{i}} \ \mathbf{i} \ \mathbf{j} \ \mathbf{j$

(220) Someone who has hairless eyes, if you want eyelids to bring forth eyelash: cadmium sixteen drachmas, azurite⁵¹⁰ one drachma (221) copper twenty drachmas, leafy that grilled well one drachma; crush them well; make a powder; apply them, they will grow.⁵¹¹

In contrast, recipes Ch 99 (see 7.2.9), Ch 100 (see 7.3.1) and Ch 200 (see 7.4.2)512 treat eyelids that have grown inwards as a result of scar formation. In addition, Ch 98 recommended a remedy from the skin of snake for the eyelids which do not produce eyelashes (see 7.5.1).

5.6.18 Some recipes of eye illnesses mention the verb κωκ "to peal" or "to become bare". The qualitative term κηκ refers to being peeled or a similar action as in Ch 102, which recommended a good powder for this condition (see 5.6.1). In a similar way, Ch 107 prescribes a remedy to treat eyes that have become bare "κηκ" or "if you want eyelids to bring forth eyelash". Eyes may have become bare due to an illness, hence they especially lost their eyelashes (see 5.6.17).

In the aforementioned recipe Ch 102, the powder used helps the bare eyes to "become smooth"; it was also used to heal wounds. The author suggests that the disease, which caused the bare eyes, could also cause eyelashes to fall out and attack the skin of the eyelid. According to Chassinat,⁵¹³ the described disease is blepharitis, an eye condition that causes inflammation of the eyelid.

The relevant recipes (Ch 4, Ch 6, Ch 12, Ch 56, Ch 102, Ch 107 and Ch 143 (see 5.6.14)) prescribe a collyrium and powder to treat вых еткик, which are also used for treating other eye diseases. The drugs

⁵⁰⁹ Cf. 'Aρμένιον "copper carbonate, azurite". Liddell/Scott/Jones 1996: 243a.

⁵¹¹ English translation by me of the French translation by Chassinat 1921: 226, with slight modifications.

⁵¹² Till 1951a: 14.

⁵¹³ Till 1951a: 14.

that often recur in these recipes are gray antimony, copper, calamine, saffron, aloe, gum and myrrh, which are then added to various other substances:

Ch 4

Ch 6

(15) [Онео]с ке екишта енвал еткнк $\bar{\text{н}}$ и нетфоуо риеі ецинц 521 епеснт ци[онт гар] (16) йтотен амирас гре $\bar{\text{а}}$ каффра 522 гре $\bar{\text{а}}$ смиринс гре $\bar{\text{а}}$ фузив $\lambda \varpi^{523}$ гре $\bar{\text{a}}$ алл $\bar{\text{a}}$ алл $\bar{\text{b}}$ (17) өнөөү калфс алу йиурөн хрф ерөөү фауло

(15) [likewi]se: other (remedy) for external (use) to eyes that have no eyelashes and for those who leave flow acrid tears; [it has been experienced] (16) by ourselves: starch a scruple, camphor a scruple, myrrh

⁵¹⁴ "The condition called ΝΒΔλ εΤΚΗΚ should be fairly widespread in Egypt, as it is repeatedly mentioned in the manuscript. The same is designated as the κακβλλ in the Coptic translation of Bohairic Lévitiq'ue (XXI, 20), where it takes place among the diseases or infirmities that among Jews, rendered unfit functions of priest." Chassinat 1921: 57.

 $^{^{515}}$ φθα \mathbf{h} γρες, tag etrωx, for tate etrωκς. Chassinat 1921: 58.

⁵¹⁶ **■**H **c** C. **c**BIO. Chassinat 1921: 58.

⁵¹⁷ ciase νήμιλομ, ciase ντινογλε (νογρε, 🗢 🖟 🔊). The gall of vulture is used in the composition for eye drops on an eye pillow. Chassinat 1921: 58.

⁵¹⁸ нов: прасол (πράσον). пнов, in Arabic it is called اکرات (scala nº 44, fol. 82, rº, rre col., ll. 7-8; scala nº 43, fol, 57, ro, l. 6); and ноι, Kircher 1643: 196. From the Ancient Egyptian (Chassinat 1921: 58.

⁵¹⁹ ынж[с ф], ев[оүшт] for ечоүшт. Chassinat 1921: 58.

⁵²⁰ English translation by me of the French translation by Chassinat 1921: 56.

⁵²¹ χη^Q for χεβ, ὂξυς, aculus, acidus. Chassinat 1921: 62.

 $^{^{522}}$ καθωρα, καφόρα, καφουρα, κάπφουρα, κάμφωρα, Arabic בُוֹפֶּٰג Chassinat 1921: 62.

⁵²³เมฟรัฐ≣ิλเม, стімеос. Chassinat 1921: 63.

⁵²⁴ αλλω[Hc], άλόη, aloe, often it corresponds to the Arabic şabr ביינ cathp (from Ch 51 and Ch 98), cat̄p (from Ch 12 and Ch 41).

a scruple, antimony a scruple, alo[es]; (17) crush them well; make them powder; apply for them. They will heal. 525

Ch 56

(111) оүколлюн нте апа күлілос псофос йархнатрос етве пмооү мін псюу мін пмоүгоү (112) мін перлостін гін йвал мін неткик аутокімаде ймос гітін оүноб йархнатрос (113) өөүөіа 527 % $\~$ халкос % $\~$ үнінөнөн % $\~$ делен 528 % $\~$ хар $\~$ ецени % $\~$ лас йенон (114) % $\~$ мир $\~$ андрані % $\~$ опіон % $\~$ ліванос % $\~$ ноосво % $\~$ комеос % $\~$ (115) екеіне ймос егоүн йінос % $\~$ % хар $\~$ алу йік хро йороріп мін йроуге орауло

(111) A collyrium for Apa Cyrille, the clever official physician, for cataract, pillowcase, inflammation, (112) the darkening of the eyes and ptilosis. It was experienced by a large official physician: (113) Zinc oxide twenty drachmas, copper three drachmas, white lead four drachmas, asafoetida three drachmas, ammonia gum pieces twenty drachmas, cuttlebone (114) twenty drachmas, salt anderany twenty drachmas opium twenty drachmas, incense twenty drachmas, aloe twenty drachmas gum twenty drachmas; (115) put in camel milk; make them a collyrium; use morning and night, they will be healed.⁵³⁰

5.6.19 γενβογγε εγο πλεπσελεπσε "Broken eyelids":

Eyes could also suffer from partial lashes failure. εενβογεε εγο πλεπισελεπισε, λεπισε το μιζη means "fragment, small portion", hence, εενβογεε εγο πλεπισελεπισε literary means "eyelashes, which are only fragmentary available". This condition is treated in Ch 101: "If you want them to grow properly again, one has to apply

⁵²⁵ English translation by me of the French translation by Chassinat 1921: 62.

⁵²⁶ Cf. ἀρχιατρός "official physician". Liddell/Scott/Jones 1996: 252b.

⁵²⁷ θογθιλ, θογθιε is an Arabic loan word tütiyä بوتيا Till 1951: 67. Richter 2014: 180.

⁵²⁸ гелою, Arabic *hiltīt خلتيت*, asafetida. Till 1951: 97; Richter 2016b: 157.

⁵²⁹ NEOCHE, 9еххо, срште (сроте) бамоул. Chassinat 1921: 169.

⁵³⁰ English translation by me of the French translation by Chassinat 1921: 166, with slight modifications.

the following remedies: Euphorbium, goose fat, myrrh and soda in equal parts to be fired and pulverized" (see 5.6.17).

5.6.20 cone ογοντ "Thick eyelids":

In recipe Ch 102 the expression come oyout means "Thick eyelids" may refers to the swollen eyelids, and it accompanied by tearing and itching. This condition was treated with powder of calamine and white vitriol, which was prepared in a special vial (see 5.6.2.2).

5.6.21 bal ετώεβε or ετώεμε "swollen eyes":

There are two recipes (O.Brit.Mus.Copt. I 49 and Ch 93) that treat the swollen eye; the first is unfortunately a fragmentary recipe:

O.Brit.Mus.Copt. I 49, ll. 1-8

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оп [.....] [..т]савос ф[....][..]гюүє [....] [тс]аво фантоүфе[.....] (5) [г]енвах еүфеч етеоүн [....] [.]е йнооү гі евох чнахо гйп[...] генвах еүфеч ееүойф[...] [т]еріхе йнооү сенахо \bar{z}н [..]...
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[...] It to dry [...] in (?) Eyes when swollen or [...] are [...] He will be healthy, so [God willing (?)..... (5) Swollen eyes... [...] they will recover, by [ (?)....swollen eyes...them they will be healed....<sup>531</sup>
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Ch 93 also recommends a collyrium, which is used among other things for swollen eyes:

Ch 93

(180) оүколлон енвал етфеве $\overline{\text{ни}}$ фане нім $\overline{\text{ни}}$ піфеве $\overline{\text{ни}}$ піфев

⁵³¹ Author's own translation.

⁵³² Νκωλ ΝΠΑΤ εγαφογε εξογη, literally meaning "knee joints that are gathering together". Chassinat translated it into ankyloses: "that is to say the complete immobilization of the joint knees, ankylosis; possibly arthritis, which causes pronounced stiffness of the limb and leads, in an acute state, to ankylosis" Chassinat 1921: 205.

s (183) гноү йоүшн s сапр s крокоү s анагер s сілікоү s нооү йшлx/ \equiv (184) нооү йперноүче 533 \Rightarrow \bar{k} ката оүа өнөөү \bar{a} а оүошноү гі нооү йшлx/ \equiv $\bar{i}\bar{e}$ нооү (185) йперноүче ааү йноүнес гітоү гі гни \bar{x} \uparrow ещшне етінү етотк ката снат нін

(180) A collyrium for swollen eyes and for any disease (eye), to swelling of the body, pain in limb, (181) gout, wounds, knee ankylosis: opium, myrrh, acacia, (182) nilotica gum acacia, acacia pods nilotica, incense, copper, lycium, *Kouhe* wood ash, (183) edible salt, aloe, saffron, realgar, red lead, egg white, (184) conyza juice, twenty drachmas each; crush them separately; knead them with egg white or juice (185) of conyza; divide them into equal portions, and rub them in vinegar. Administer to any patient who comes to you, according to each case. ⁵³⁴

5.6.22 τραχομα, τράχωμα "Trachoma":

⁵³³ Cf. περιογίε "conyza", Arabic برنوفرف. Crum 1939: 269a.

⁵³⁴ English translation by me of the French translation by Chassinat 1921: 204.

⁵³⁵ Chassinat 1921: 266.

⁵³⁶ Ibn Sina 1593, III: 345.

⁵³⁷ Crum 1939: 530b.

⁵³⁸ Chassinat 1921: 265.

⁵³⁹ Trompoukis and Kourkoutas 2008: 872.

⁵⁴⁰ Till 1951a: 15.

⁵⁴¹ Trompoukis and Kourkoutas 2008: 871.

smoke from its burning, or the burning of incense, fills the ulcers of the eyes and removes leucom and anything that causes blurring of the pupils, and it eliminates trachoma, and is thus suitable for the above diseases". Also, he recommended using rust or shavings of copper or iron. Galen (129–216 AD) was more precise in determining this disease, he categorised it as a violent, external eye disease afflicting the inner eyelid. He recommended treatments in the form of drops to work as an anti-inflammation, which were to be used with eye drops made of wine to wash out the eyes. ⁵⁴² This variety of prescriptions indicates the severity of such a disease and the search for several ways to treat it and prevent its spread.

Ch 138

(281) оүтрахона 543 йтасшск ий йейүт ий нефш 544 ий йөөүө ий йхоүч ий †аөүсіс нін (282) амишнакоү өүніанатос $^{\circ}$ $^{\circ}$ овен йхас $^{\circ}$ $^{\circ}$ конеос $^{\circ}$ $^{\circ}$ в өнөөү 21 [нө]өү хахе ерөөү

(281) A prolonged trachoma, nails, vesicular rash, swellings, burnings (heats) and any condition: (282) gum ammoniac two drachmas, alum shale three drachmas, gum two drachmas; crush them with water; anoint them. ⁵⁴⁵

אא אוֹפּסְץְס literally means "much meat" or "abundant meat" and is mentioned in (Ch 52, p. 112). Chassinat states that it means "extra flesh", which corresponds to the Arabic term زياده لحم الموق "Canthus" Ibn Sina states that its decrease and increase causes eye problems such as blinding and tearing of the eye. 547

⁵⁴² Trompoukis and Kourkoutas 2008: 872.

⁵⁴³ †paxoha is a disease of the conjunctiva, which under its action, dries and shrinks. "It seems that this is not an Egyptian eye disease. This recipe mentioned materials which also used for warts, psoriasis, tumors and overheating. τράχωμα related to τραχός "rough" and could have been just as well being the name of a skin disease. The Egyptian eye disease seems not to have been known to Coptic-speaking physicians by the name τράχωμα. It is otherwise strange that this disease, which is already so frequent in Egypt (ninth century), is not often mentioned in recipes, especially since Chassinat is concerned extensively with all possible eye diseases. It seems rather as if Coptic-speaking physicians acknowledged it with varying names such as [ογβάλ είζο ΝΒογρε, ογβάλ είζη μπο probably others." Till 1951a: 15.

⁵⁴⁴ Chassinat translates it into "éruption vésiculeuse"; he assumes that it is similar to an infantile, external illness

⁽Example 21:11) in Berlin paperus 3027). Pemphigus afflicted newborns and is characterised by the production of bubbles on the skin (Chassinat 1921:110). I propose that the word νεοχώ is more suitable than αχώ "sand", because sand could not cause any infection to the skin but rather problems to the kidnev and bladder. It appears as an internal disease, unlike the case here which recommends an external remedy for a group of diseases. παχώ νινι "the sand in urine" in Ch 6 (section 5.6.2.1) and P.Mich. MS 136, 1, 133 (section 5.11.1).

⁵⁴⁵ English translation by me of the French translation by Chassinat 1921: 265.

⁵⁴⁶ Chassinat 1921: 158.

⁵⁴⁷ Ibn Sina 1593, III, 341.

5.6.24 βλλ ετω νικωρτ "Fiery eyes":

Ch 44

- (81) оуарпфр ω^{548} енвал етф йкфет фе†нег $\$ ї полп x^{549} $\$ $\$ а өнооу калфс алу йхүрөн хрф
- (81) A refreshing colloyrium for eyes that are suffering from inflammation: Hematite ten drachmas, saffron drachma; crush them well; make it powder; apply. 550

5.6.25 πρώκε Νβάλ, πρώκε εννβάλ 551 "Itchy eyes":

прике нвах от прике ганвах "itchy eye" or "the itching in the eyes" is an eye condition mentioned the medical texts without any reference to its causes or symptoms:

P.Louvre AF 12530, recipe no. 21, ll. 33-42

пешке ивах шт ахпаннт 552 еүсіне инахбаххооус тауріа
е тарвоурвор кадміас баурі оүші йоушт йгсактоу йгтсоу пахакн
т йчшооус уптеміне тауріар тарвоурвор

The itchy eye: Fat, the painite, bring the hazelnuts?,

⁵⁴⁸ αρπωρωτ, Arabic *al-baroud* الْكُرُو (the most used spelling is وُرُود), name of a form of eye drops used for softening dry eye. Ibn Sina mentioned the component of this medicament, which also contain hematite and Safran, similar to this recipe: "Hematite, burnt copper, five dirhams of each, socotrina aloe, armenian borax one dirham of each, verdigris, white pepper, long pepper (dar pepper), grease of bitter melon, saffron, and ajwain ½ dirham of each, rind them, crush them, and use" Ibn Sina 1593, V, 255.

⁵⁴⁹ πολπχ, κλοκογ (κροκογ), κρόκος. Chassinat 1921: 150.

⁵⁵⁰ English translation by me of the French translation by Chassinat 1921:150.

⁵⁵¹ Often this disease appears on the skin (skin diseases, section 5.14), and there are many recipes for skin diseases that mentioned this disease and its treatment methods. But only in this document (Louvre AF 12530), this disease was linked to the eye, and there are two recipes in the same document treating this disease.

⁵⁵² אחאאד may be stands for the Arabic البانيت (painite mineral).

long pepper, calamine, ... (each) one part, crush them and soak them; the

thickened should dry in the shade. 553

P.Louvre AF 12530, recipe no. 27, ll. 82-91

ΕΤΒΕ ΟΥΡΟΙΚΕ ΡΝΝΒΑΧ ΔΙ ΠΝΒΗΡΒΙΡΕ ΝΡΕΧΜΑΝ ΕΥΡΑΜΣ ΠΓΤΑΥ ΕΠΜΟΟΥ

νίγκαν ετίωτε νίγχι μπημοού νίγτι ασσούχαρ ούα σαπέ νίγιαστά νίγτι

игнтф

For itchy eyes: Take the seeds of sour pomegranates, give it to water, leave

it (until?) for morning dew, take the water and add sugar (edge gloss: and)

aloe juice (to it); boil it and give it away. 554

5.6.26 панр "Air":

Some medical recipes mention namp as an eye disease such as in P.Louvre AF 12530, recipes no. 13, 16

and 24.555 Such a disease only appears in P.Louvre AF 12530 and is not found in any other medical text.

The ingredients used in these recipes, for example myrrh, saffron, camphor, aloe and musk, were usually

used to treat eye diseases. Richter⁵⁵⁶ states that it perhaps the same disease as ελοςτ "mist", which appears

in Ch 4, Ch 56, Ch 113, Ch 190, Ch 193 and Ch 204. Recipe no. 17 of the third hand does not specify any

medical prescription; however, it states that the remedy should be applied on the skin and nose:

P.Louvre AF 12530, recipe no. 13, ll. 66-69

ουτώρς επάηρ θουθία ς μώρ δ κρόκος α κώμε δ

An ointment (?) against "air": zinc oxide: 6, myrrh: 4.

Saffron: 1; gum: 4.557

⁵⁵³ English translation by me of the German translation by Richter 2014: 178.

⁵⁵⁴ English translation by me of the German translation by Richter 2014: 179.

⁵⁵⁵ ληρ ἀήρ "air". cf. ἀήρ. Liddell/Scott/Jones 1996: 30b.

556 Richter 2014: 175.

⁵⁵⁷ English translation by me of the German translation by Richter 2014: 177.

129

P.Louvre AF 12530, recipe no. 16, ll. 79-86

х ϖ ер аспідені 558 $\bar{\mu}$ хав ϖ л \mathfrak{s} γ' сартар 559 'eqoyaaq' β {сартар β } сарин ϖ

Persian cabbage: 40, camphor: ½½, pure thyme: 2, {Thyme: 2}, red arsenic: 1, aloe juice ...: 2, musk: two *ḥabba*, saffron: one *ḥabba*. Against air and every illness.⁵⁶¹

P.Louvre AF 12530, recipe no. 24, l. 68-76

оүпарре нпанр йгхі йдехнан ецган \overline{x} икане аүш оүон ецголб йгхі пеүнооү йгті ех \overline{y} иоүевіш йгтару ехи пк \overline{y} йгві йтецгвнте тнрс

A remedy for air: Take sour, black pomegranate and one that is sweet and take their juice and put some honey on it and put them on the fire and take all its foam.⁵⁶²

5.6.27 λεγκωμα, 563 λεύκωμα 564 "Leucom":

Leucom, is a white, dense corneal opacity, 565 this disease was treated with collyrium, and powder:

P.Louvre AF 12530, recipe no. 19, ll. 10-21

⁵⁵⁸ аспірені from Arabic *isbahäni* أصفهانى. Richter 2014: 180.

⁵⁵⁹ captap is Arabic ṣa tar ביש, Richter 2016b: 157. Here Richter translates it "oreganium". Richter 2014: 177. But I argue that captap means "thyme" which is the Arabic word ב ב. Ibn Al-Baitar mentions that the thyme strength the weak eyesight from humidity. Ibn Al-Baitar: 84. But the word "organy", or "origanum heracleoticum" in Coptic language known as ορικανον, ὀρίγανον (Ch 173). Cf. ὀρίγανον Liddell/Scott/Jones 1996: 1250b. ορικανον, ὀρίγανον corresponds to the Arabic مردڤوش, and different from captap thyme, which is in Arabic ṣa tar ב ב '. Hence, I prefer to translate it thyme instead of oregano. For differences between oregano and thyme [https://www.earthtokathy.com/%EF%BB%BFunderstanding-the-differences-between-oregano-sweet-marjoram-and-thyme-essential-oils/], (last accessed: 17.01.2021).

⁵⁶⁰ саринц), Arabic loan word means "Arsenic". Richter 2014: 168. саринц) from the Arabic word zernikh ذرنيخ

⁵⁶¹ English translation by me of the German translation by Richter 2014: 177, with slight modifications.

⁵⁶² English translation by me of the German translation by Richter 2014: 179.

⁵⁶³ Cf. λεγκωμα "Leucom; white spot in eye". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C9621], (last accessed: 11.03.2020).

^{564 &}quot;white-board; white spot in eye". Liddell/Scott/Jones 1996: 1042b

⁵⁶⁵ Venes 2017: 1392.

ουπαρρέ Νβαλ ενλευκωμα λασαριον 566 f $_{5}$ χαρρ' f $_{1}$ σίνσαλ f η αλμώρ f $_{2}$ ασσαμκ f $_{3}$ τι μοού επαρχαρζ μν πκώμε ωδντεύβων εβού νγνούχ πκέσεπε εχώου νγναδύ μκολληρίον νίτι ενβάλ

An eye remedy for leucom: Asafoetida (ounces) ½, ammonia (ounces) 8, verdigris (ounces) 8, myrrh (ounces) 4, gum (ounces) 4, add water to the ammonia and gum, until they dissolve, throw in the rest, make it a collyrium and give (it) to the eyes. ⁵⁶⁷

P.Louvre AF 12530, recipe no. 20, ll. 22-32

ουπάρρε νβάλ ουκμημέ ουςίου [[τ]] δωβρε νλευκώμα \mathbf{e} τάρω \mathbf{u} ατάνι \mathbf{e} ε α μωρ σουμπούρ θουθία πας εκούρωρ λούλου νατόωτ \mathbf{e} έλπαθ αττάραπ \mathbf{e} 68

An eye remedy, (against) "darkness", "star", cold (? - or: red) ... (?) of leukemia, hematite one (ounce), myrrh, nard, zinc oxide, coral seeds (?), unpierceable pearl, gold slag.⁵⁶⁹

P.Louvre AF 12530, recipe no. 25, 26 ll. 77-81

лечкона гас почгор алміск алло євре пвафочф

(In) leukemia: Dog droppings, musk, another: rue seeds. 570

5.6.28 enebal etaane "sick eyes":

⁵⁶⁶ λάσαρον, Cf. Till 1951a: 108. It appeared in Ch 45, in a recipe for eye powder as pacape.

⁵⁶⁷ English translation by me of the German translation by Richter 2014: 178.

⁵⁶⁸ Arabic habat al-dahab جبات الدهب, and it is synonym for "Gold-cadmium". Richter 2014: 180.

⁵⁶⁹ English translation by me of the German translation by Richter 2014: 178.

⁵⁷⁰ English translation by me of the German translation by Richter 2014: 179.

For the sick eyes two remedies recommend powder and collyrium:

Ch 46

(84) [оү]хүрөн өтве йвах етфине \overline{v} и бінфине ні[и сті]иеос өбүөіє амхаб 571 \raiseta \overline{k} епоуа [....] (85) маніран \raiseta екхниіа \raiseta полп \raiseta еіфиех \raiseta (?) епоуа кафир \raiseta өно \raiseta \overline{u} (йгі] (86) \raiseta хіхіб таау епиооу фантоурик сш \overline{v} пиооу евох тси піпагре фантечсици (87) каач фантечфооує кахис \raiseta өноң кахис аач йхүрөн хри

(84) A powder for eyes which are sick in any state of sickness: anti]mony, zinc oxide, emblic, twenty drachmas of each, (85) long turmeric 2/3 of a drachma, gold cadmie, saffron, *eismekh*, seven (?) of each, camphor 1/12 of a drachma; grind five drupes of myrobolan; (86) put them in water until they soften; filter the water, sprinkle the medicament until it is soaked; (87) let it dry completely; grind well; make powder; apply.⁵⁷²

Ch 84

(165) oyk[ollion] enbal etambe \bar{g} n singwhe nim x_{λ}^{573} } ā happ[e \bar{n}]eswa } ā foyhia } ā [aay] \bar{n} k xpw

(165) A collyrium for sick eye in state of any ailment: copper rust one drachma, remedy [from] Ethiopia one drachma, zinc oxide one drachma; [make them] an collyrium; apply.⁵⁷⁴

ארא Arabic *Amlag* (ייִוֹב (ניִוֹב). Chassinat 1921: 154.

⁵⁷² English translation by me of the French translation by Chassinat 1921: 153, with slight modifications.

⁵⁷³ xx, γογ. Chassinat 1921: 289.

⁵⁷⁴ English translation by me of the French translation by Chassinat 1921: 192, with slight modifications.

(173) оүхүрөн еневал етфине \bar{g} н бінфине нім гіліліб أصفر \bar{g} \bar{z} өөүөіе \bar{z} өнөөү (174) мін неүернү таау еүрік таау егоүн еүарчилін \bar{s}^{575} каау ің \bar{g} \bar{g} мін оубираг (175) йтоу евол өнөөү \bar{g} книме йфонте \bar{g} \bar{g} өнөөү \bar{g} мооү \bar{g} \bar{g} өгөөү \bar{g} \bar{g} үрө \bar{g} хри \bar{g} \bar{g}

(173) A powder for the sick eyes in state of any ailment: yellow myrobolan seven drachmas, zinc oxide seven drachmas; grind them (174) together; put them (then) in an oil vase that you will place in a stone pot; leaves for a day and a night; (175) (then) remove (the materials from the vase), crush them (again); adds acacia gum, a drachma; grind (once more and) pour over (the ingredients) fennel water for seven days; apply as powder.⁵⁷⁷

Ch 94

(186) ουκολλίον ενάνους εφωνέ νιη \overline{z} ν νθάλ στέπτερια αμέλου \overline{s} $\overline{\Delta}$ εκαξέλεωλου έ \overline{x} ν (187) πμοού έτκης \overline{u} ν τάλς έρος ενάνους νούςοπ έπεδοτ εςνάςι φωνέ νιμ έβολ \overline{z} ν πβάλ

(186) A good collyrium for all eye diseases: alum six (sic), starch four obols; sprinkle them on (187) cold water; (and) give it to the him (patient). It will be enough once a month, it will remove any eye disease.⁵⁷⁸

5.6.29 General Eye diseases

Several remedies are prescribed to treat common eye diseases in general, without any indication of the symptoms of the diseases. In many cases, it is mentioned that this recipe will help with any eye diseases, such as: Ch 12, Ch 41, Ch 45, Ch 46, Ch 47, Ch 49, Ch 50, Ch 57, Ch 58, Ch 59, Ch 77, Ch 79, Ch 80, Ch

⁵⁷⁵ ΔΡΥΦΧΉ Arabic word *Al-bram* البرام "stone cooking pot". Chassinat 1921:197.

⁵⁷⁶ **ДОЗОО**, (ДАМАХ ((ДАМАР).

⁵⁷⁷ English translation by me of the French translation by Chassinat 1921: 196.

⁵⁷⁸ English translation by me of the French translation by Chassinat 1921: 207.

81, Ch 82, Ch 83, Ch 84, Ch 87, Ch 94, Ch 96, Ch 103, Ch 104, Ch 105, Ch 109, Ch 122, Ch 191, Ch 221, Ch 235, Ch 236 and SBKopt I 006. These recipes encompass remedies mainly externally applied on the eyes, and contain the following drugs: galmei, copper, alum, saffron, pepper, ginger, parts and products of acacia, gum, opium, myrrh, aloe, camphor, vine and vinegar, decoction or juice of plants.

5.7 STOMACH DISEASES

The Greek word στόμαχος refers to the stomach in all medical recipes in the Chassinat Papyrus, which comprises a series of consecutive recipes for stomach. Complaints that relate to the stomach, for example, are βωσε "leap" (Ch 68) and τεμτωμ πτηγ "heavy with gas" (Ch 69), which refer to stomach bloating. In addition, εqνογχ ςλω εqκημ εχρλι επέ εφωσε "throw up black bile or is swollen" is included in (Ch 70). These recipes recommend various remedies in liquid form for drinking, including poultice and plaster.

5.7.1 оүстомахос нтачвиже "Stomach that leaps":

Ch 68

(133) етве фине нім ет \overline{n} пестомахос (134) оустомахос нтацвибе нартостахос 579 фекіне йстої внооу калис тсоц чнало

(133) For all diseases that is in the stomach. (134) Stomach that leaps: Indian spikenard, cumin, aromatic wine; grind them well; make the sick drink, he will be cured.⁵⁸⁰

Ch 69

(135) Омеос оүстомахос ечтемтфм йтнү ере течхо міве тепім ын вафоуф феніок \equiv (136) госім йаравіком ечіф өнооу кахфс \dagger мач мічоуфм чилоухаї

⁵⁷⁹ Naptoctaxoc, ναρδοσΊαχυς, Arabic سنبل هندی ;نار دین طیب. Chassinat 1921: 176.

⁵⁸⁰ English translation by me of the French translation by Chassinat 1921: 175.

(135) Likewise: Stomach heavy with gas, so that it stops blowing: Cumin, pepper, rue, mustard, (136) Arabic natron, honey; crush them well; give him to eat it; he will recover.⁵⁸¹

Ch 70

(137) Омеос оүтомахос (sic) ечноүх саф ечким еграі $\overline{\text{ел}}$ е ечфове имін иім хі нак йген (138) сфонгос ом еүгим ечносе ий генофве йкіссос ете песнілах 582 пе $\overline{\text{иг}}$ (139) лагмоу гі нр $\overline{\text{п}}$ $\overline{\text{иг}}$ лаг нах йкатапласма гіхфч $\overline{\text{иг}}$ епетффие оу оутрофи (140) есасіфоу ете оусооуге де течсфс $\overline{\text{ел}}$ оугалікин 583 $\overline{\text{ей}}$ оун $\overline{\text{рх}}$ $\overline{\text{ей}}$ оуоурнте $\overline{\text{их}}$ ндас 584 (141) $\overline{\text{ей}}$ $\overline{\text{гиафу}}$ фасіанос 585

(137) Likewise: Stomach that produces/throw up black bile or is swollen in any way: take (138) sponges soaked in vinegar that cooked with ivy leaves, which is the bindweed; (139) boile them with wine and make them a poultice that you will apply upon it. Give the patient (who is sick) a light food (140), which is an egg to swallow, fatty poultry broth, chicken or pig's leg, (141) or pheasant flesh. 586

Ch 71

(141) Omeoc oyctomaxoc ey†kkac teh \overline{n} eyghx 3s† θ nooy ε 1 w λx 5 = xpw

(141) Likewise: Stomach that have pain: Toasted cumin, celery; crush them with: with egg; apply.⁵⁸⁷

⁵⁸¹ English translation by me of the French translation by Chassinat 1921: 176, with slight modifications,

⁵⁸² Cf. เหเงละ "bindweed, yew". Liddell/Scott/Jones 1996:1619b.

⁵⁸³ This noun is without an equivalent.

⁵⁸⁴ Cf. χοῖρος "young pig, porker". Liddell/Scott/Jones 1996:1996b.

⁵⁸⁵ Cf. Φασιανός "the Phasian bird, pheasant". Liddell/Scott/Jones 1996: 1918b.

⁵⁸⁶ English translation by me of the French translation by Chassinat 1921: 177, with slight modifications.

⁵⁸⁷ English translation by me of the French translation by Chassinat 1921: 184.

(142) оүйпластрон етве пстонахос моү $\bar{\chi}_{2}$ \bar{r} \bar{r} мас \dagger хе⁵⁸⁸ \bar{r} \bar{a} калафоніас⁵⁸⁹ \bar{r} \bar{a} (143) ұіміөюү \bar{r} \bar{a} стн \bar{p} \bar{z} ⁵⁹⁰ \bar{r} \bar{a} мохкоу таау гіх $\bar{\omega}$ петфине мінісфс текпастоу ках (144) фантеуснигіста⁵⁹¹ таау ехфу йкатапласма чиало

(142) A plaster for the stomach: Wax three-ounces, mastic one-ounce, rosin one-ounce, (143) white lead one-ounce, storax one ounce; mix them and apply them to the patient (who is sick) after that cook them well until (144) they thicken. Apply them on him as a poultice, he will be healed.⁵⁹²

Ch 73

(145) Омеос вниме еqtaz f \overline{b} ноеіт \tilde{N} мСН \overline{b} \overline{b} \overline{f} \overline{h} үмнөюм f \overline{a} стирах f \overline{b} хөшүлү \overline{g} \overline{f} \overline{a} (146) \overline{f} \overline{a} (sic) ващоуш еqлик \overline{f} хрокос \overline{f} \overline{a} өнооү калшс махкоү \overline{h} оүн \overline{f} \overline{h} ластоү фантоүсенгіста калшс калү гіхшү \overline{h} катапласна qnaло

(145) Likewise: Two ounces crushed dates, eight ounces cucumber flour, one ounces white lead, two ounce styrax, one-ounce mastic, (146) fresh rue one ounce, saffron one ounce; grind them well; mix with old wine; (147) cook until desired consistency; apply them as a poultice; he will be healed.⁵⁹⁴

⁵⁸⁸ μας † κε, μαστίγη, and corresponds to Arabic مصطكي "mastich". Chassinat 1921: 185.

⁵⁸⁹ καλαφονία, κολοφωνία, and corresponds to Arabic ظفونيه. Chassinat 1921: 185.

[.] اسطرقس ττηρχ, στύραξ. Cf. στύραξ "storax". Liddell/Scott/Jones 1996: 1658a. it corresponds to Arabic

⁵⁹¹ CHNRICTA (also as in Ch 18; Ch 121; Ch 127; Ch 198), CRNRICTA (Ch 15), CRNRICTA (Ch 150) is from the Greek word συνιστάω "to combine, associate, unite. Sophocles 1050b; Liddell/Scott/Jones 1996: 1718b. [CHN]HICTA, συνισιάναι, "Thicken, take consistency, hardening". Chassinat 1921: 103. Cf. CRNRICTA, CRNRICTA, CHNRICTA "to unite, to thicken". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C10645], (last accessed: 27.01.2021).

⁵⁹² My English translation adapted from the French translation of Chassinat 1921: 184–185.

⁵⁹³ This word αχωβε has different meanings "cucumber", "gourd", and corresponds to Greek σίκυς, and Arabic قثاء, فقوس, بطيخ
Crum 1939: 581a; Till 1951: 63.

⁵⁹⁴ My English translation adapted from the French translation of Chassinat 1921: 185.

5.8 INTESTINE DISEASES

5.8.1 гнтq тккас "painful belly":

For abdominal pain, Ch 167 recommends using rough seeds and oil. In addition, Ch 168 prescribes a tampon impregnated with oil, fat, and starch, which should be inserted into the anus. The same means can be introduced into the vagina, or used against uterine pain:

Ch 167

(325) ота ере риту †ккас нер йар†нар кине стир \bar{z} йапотахаламон пастот ил нечерну (326) сеп оүклие таас ерры йноч таас он етоте йотсине ес†ккас снало \odot

(325) Someone whose belly has pain: Dodder seed oil, grease, storax of aromatic reed juice; cook them together; (326) soak a tampon and lay it down on him. Give it also to the painful matrix of a woman, it will be healed.⁵⁹⁵

Ch 168

(327) oneoc ebpe sinsin 596 zi nez ficíw prax^{597} waylo

(327) Likewise: Seed of rocket and oil; anoint (the diseased parts) they will be healed. 598

5.8.2 εςμούς εερμησεικ λάλε "trouble to pass stool":

"(Someone) who has troubled to pass stool" indicates that a patient is suffering from constipation. Various recipes recommend a purgative and laxative remedy for treating this ailment:

⁵⁹⁵ English translation by me of the French translation by Chassinat 1921: 284.

⁵⁹⁶ Cf. פואסות, בואבאו "rocket (plant)", it corresponds to Greek εΰζωμον, and Arabic *Jarjeer*. Crum 1939: 824b.

⁵⁹⁷ τωςς εροογ. Chassinat 1921: 285.

⁵⁹⁸ English translation by me of the French translation by Chassinat 1921: 285, with slight modification.

P.Mich. MS 136, ll. 205-207

ουρωμε εμμος εερμησεικ λαλε έπτ \overline{q} ναν τηλ \overline{m} μμαςε αυρ \overline{q} ναλο//

A man who is troubled to pass stool: Smear his belly with calf (or bull) marrow (?) and he will recover.⁵⁹⁹

Another recipe (P. Mich. 593b, p. 168 ll. 5-20) recommends that a person, who is suffering from constipation, should eat a pigeon that has been prepared with certain ingredients, and then drink some cups of wine (see 3.1.3).

P.Ryl.Copt. 106, Il. 51-64 contains a variety of ingredients that have gone through multiple stages and are applicable in treating various internal diseases. The recipe also works as a laxative (фаркантре ипро ипекрит) "it is also clean the mouth of your heart", the expression "mouth of the heart" may be directly referring to the bowels (see 4.1.8).⁶⁰⁰

Ch 74

(148) оүкаөарісмос ыы флаєїн сакамоүніа 601 ғ \bar{a} єпоуа нітроу ғ \bar{h} єуфорвіоу ғ \bar{h} (149) өнооу калшс оушфи гі еціш тсооу ката теубом йнечт 602 снаєї єпеснт

(148) A purgative: Pepper, cress, scammony, an ounce of each, natron eight ounces, eight ounces spurge; (149) crush them well; bake with honey; drink according to the strength of the patient, the gas will go to the bottom. ⁶⁰³

⁶⁰¹ σκαμμωνία (Dioscorides, IV, 170), Convolvulus scammonia, scala Bohairic: Arabic sakamonia سقمونيا وهي المحموديه. Chassinat 1921: 187; Till 1951: 86.

⁵⁹⁹ Translation adapted from Worrell 1935: 36.

⁶⁰⁰ Till 1951a: 24.

⁶⁰² Cf. Neqт "blow, and breath". Crum 1939: 239а.

⁶⁰³ English translation by me of the French translation by Chassinat 1921: 187.

(153) оүкаөарісмос єнаноүц са $\bar{\Pi}^{604}$ \raiseta павамоүн 605 \raiseta $\ddot{\kappa}$ сакамоүніа \raiseta а өнооү аау $\tilde{\kappa}$ [хр ϖ]

(153) A good purgative: Aloe ten drachmas, dodder twenty drachmas, scammony one drachma; crush them; make them a collyrium; [apply]. 606

5.8.3 MESTO WONE "Sick intestine":

พอรู To/กิเกอร์ นิพมฐ์ T means "great intestine" and refers to the rectum or colon. To treat a sick intestine, some recipes recommended various remedies such as drinking, suppositories, or even magical elements. Ch 75 recommends a medicament that can either be used as a liquid remedy, which the patient can drink directly, or be crushed in the form of a suppository. The remedy in both forms is composed of myrrh, castoreum, green vitriol and spurge:

Ch 75

(150) оүтсш өтвө пиоб йна \overline{r} синринс f \bar{k} кастшр 607 f \bar{k} анігам f \bar{k} еүфорвіоу f \bar{f} (151) өнооу калшс аау йсар таау ерраі \bar{g} и пкафісна екфаноушф тсш оуфи ді еціш (152) тсооу ктата теубон

(150) A potion to the large intestine: Myrrh twenty ounces, castoreum twenty ounces, green vitriol twenty ounces, spurge three ounces; (151) crush them well, make a suppository and insert it down in to the rectum. If you want, administer a little-potion with honey; (152) drink according to the strength of the patient. ⁶⁰⁸

صَدِر Arabic sabr صَدِر.

⁶⁰⁵ πλθαμογν, Cuscuta epithymum L. Chassinat thought that is transcription of Arabic أفيثِيمُون ,أفيثِمُون أفيثِمُون أفيثِمُون أفيثِمُون أفيثِمُون أفيثِمُون أفيثِمُون أفيثِمُون Arabic أفيثِمُون أفيثُمُون أفيثُمُون

⁶⁰⁶ English translation by me of the French translation by Chassinat 1921: 188.

⁶⁰⁷ κὰσ7ωρ, Arabic ğundbādastar Αίκιμως. Chassinat 1921: 188. Cf. καστώρ, καστόρειον "castoreum". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C9317], (last accessed: 20.08.2020).

⁶⁰⁸ English translation by me of the French translation by Chassinat 1921: 187-188.

Ch 225 prescribes a liquid remedy consists of: Aromatic jujube, *aam*, spurge, myrrh, to be drunk with hot water in the bath (see 3.2.12).

Ch 224 recommends a remedy, to be precise a magical instruction, against a sick intestine:

Ch 224

(402) ογα έρε πευμέςτο σώνε ογός βε (sic) νογών τας εγώμρ νογών μορς έχν τευζελπέ υναλο

(402) Someone whose great intestines is sick: A wolf's tooth; put it in wolf's skin; attach it to the patient's navel; he will recover. 609

Ch 226 recommends a special remedy made from the dung of the wolf. Chassinat⁶¹⁰ argues that this remedy was a part of medico-magical prescriptions. Wolf teeth and skin appear as ingredients in a number of cases (see Pliny, XXVIII 78). Also, wolf dung was used against intestinal pain:

Ch 226

(405) Онеос пиегто ет \dagger ккас копрос илкнкос ечршх еченну гі ыы налау оуощноу гі ечіш тсоч алла хі пве (sic) йфор \overline{n} оудокінон пе

(405) Likewise: The great intestine that has pain: Burnt wolf droppings, crushed with white pepper; knead them with honey, drink it, but take your salary first, it is tested. 611

5.8.4 γελμις, έλμις "Intestinal worms":

Against intestinal worms, the following recipes are recommended:

⁶⁰⁹ English translation by me of the French translation by Chassinat 1921: 316, with slight modifications.

⁶¹⁰ Chassinat 1921: 316.

⁶¹¹ English translation by me of the French translation by Chassinat 1921: 317, with slight modifications.

⁶¹² Cf. ἕλμις "worm". Liddell/Scott/Jones 1996: 537a.

The medical recipes Ch 110 prescribes a remedy against specific type of worms called TMOC NOOGION "the dust-*Mos*", ⁶¹³ in which the meaning of MOC is unknown. ⁶¹⁴ The recipe recommends three remedies against worms: firstly, a suppository of fresh blue vitriol and wine which will cause the worms to exit the body; secondly, smoking blue-vitriol with wheat broth to make the worms move towards the bottom; and, lastly, drinking one cup of purslane, cow milk and honey for three days:

Ch 110

9

(235) оүа ере генміс йгнтү фаүмоүте ерооү же тыс фоеіф хі йоүанігам ечоүфт (236) өнөөү (sic) гі нрп ф оүкаме нач сенаеі епеснт \vec{e}_{i} текті панікам еүхеллос йсоүф (237) течсфу теккапніже ймоч йелко йнам сенаеі епесент \vec{e}_{i} йг хі йоуегмоүге (238) ий оуерфте йеге ий оүечф \uparrow оуапот нач йгнтү йй \ddot{r} пестоу йфорп

(235) Someone who has worms inside him to which is called to dust (?): Take fresh blue vitriol; (236) crush with wine; administer as a suppository, introduce them downwards the bottom. Or put vitriol in a wheat decoction; (237) he drinks (the patient), and smoke it with the tamarisk bark; introduce them downwards the bottom, or take purslane, (238) cow milk and honey; give a cup to him in three days. Cook them at first. 615

Ch 111 recommends lettuce seeds to be drunk with warm water so the patient will vomit the worms:

Ch 111

(239) Омеос евреф q^{616} өнөү течсфу гі өермфи чилкакавол ййегелміс

(239) Likewise: Lettuce seed; crush it; He (the patient) drink it with hot water, he will vomit worms.⁶¹⁷

⁶¹³ Crum 1939: 184b.

⁶¹⁴ Till 1951a: 24.

⁶¹⁵ English translation by me of the French translation by Chassinat 1921: 234.

⁶¹⁶ mwb, Arabic alkhas الخس. Chassinat 1921: 235.

⁶¹⁷ English translation by me of the French translation by Chassinat 1921: 235.

Ch 112 consists of vitriol, aloe and onion juice is to be taken at bed time:

Ch 112

(240) Омеос калафанф \S \tilde{a} аллинс Υ \tilde{r} фиооу оуофмоу гі мооу йгтт аау йноб \tilde{n} \tilde{k} $\mathring{\tau}$ пач ечнанкоте

(240) Likewise: Blue vitriol an obol, aloe three drachmas; crush them; knead them with onion juice; make them a great collyrium; administer-in three to him (the patient) when he goes to sleep.⁶¹⁸

Ch 166 recommends a drinking remedy consisting of chamomile, mastic, rue and wine:

Ch 166

(324) оү
а єрє йде
λміс йднт \overline{q} хамамє
λλον мас \dagger хє вафоуф н \overline{p} π өнооу тадоу м
ін пн \overline{p} π τ[co]q

(324) Someone who has worms inside him: Chamomile, mastic, street, wine; crush them; mix them with wine; and let him drink.⁶¹⁹

In Ch 227, the patient should drink the decoction of raisins and the unknown drug nédjmê:

Ch 227

(406) ομέος ογα έρε πλέλμις πρητή $\bar{\eta}$ τεμλόχος πχμη $\bar{\eta}$ ελολέ ώρους λορμού τςου οεύμοου ςενάλ

⁶¹⁸ English translation by me of the French translation by Chassinat 1921: 235.

⁶¹⁹ English translation by me of the French translation by Chassinat 1921: 283.

(406) Similar: Someone who has worms inside him, in his *lodjos*: *Nedjmê* and raisin; crush them; (make the patient) drink the juice, the worms will go away.⁶²⁰

5.8.5 ทเฉอยะ ทิกตาม "swelling of the body":

Ch 14

(34) [оүа ере п]ецсима тнр \overline{q} феце вафоу[фгнм]нх ецөннү моүлаг (35) сантех 621 пастоу гл оүкшгт кл оү[......] тшгс пецсима тнр \overline{q} фацло

(34) [Someone whose whole body is swollen: rue, vinegar, ground cumin, wax, (35) sandalwood; cook them in fire with; (and) smear his body completely, he will be healed.⁶²²

Additionally, Ch 93 provides a collyrium which is also good to sooth a swollen body (see 5.6.21). Also, P. Mich.MS 136, Il. 56-59 attests that gold, immersed and grinded with oil and smeared on the swollen person, can help to treat swelling:

P. Mich.MS 136, ll. 56-59

For a man who becomes swollen (inflamed): Salt of a piece of gold: that in which pieces of gold are quenched. Pulverize with oil. Anoint him till he recovers.⁶²³

⁶²⁰ English translation by me of the French translation by Chassinat 1921: 318.

⁶²¹ cantel, ביניט, σανδαλ Santalum album L. Chassinat 1921: 102, Till 1951a: 92.

⁶²² English translation by me of the French translation by Chassinat 1921: 102.

⁶²³ Translation: Worrell 1935: 30.

5.8.6 A spell for abdomen disease:

P.Sarga 20 is a highly multi-layered recipe against abdomen disease; it also contains a spell which plays a role in the treatment:

P.Sarga 20

+ єтвє оуа єрєєнт [и]ечоуєрнте ичс ω [итнн]вє итекбіх оуагоу [...] и]гхоос хеїа ω їа ω [5] п ω иє єтчигнтч [о]у асфалтои ии []. лбої таау єграї ге []єтвепехалкіои []ипоупоопе

Concerning someone whose (?) belly [] his feet and he ... [] fingers of the hand; lay them [] and say: Iaô, Iaô [] the sickness wherein he is [] bitumen and []; place them on [].] Concerning the cauldron [] they have not changed [or been moved]. 624

5.8.7 маёт моофе:

In P.Mich. 593b, p. 168, ll. 16-25 the editor proposed to read the missed word as the verb Moo[Ope]? "go" for as much as the bowels run, may be refers to the diarrhea:

P.Mich. 593b, p. 168, ll. 16-25

 \bar{n} вууе \bar{n} с[оол] δ е \bar{n} ссоуг[d] \bar{n} [l]өрв \bar{n} сх[е]лхфа \bar{n} и \bar{n} сфс \bar{n} скфк олу ебе \bar{n} е[d] нубі ноо́[фе] олбебнуй иісфолфа [е]воу иіну $[\bar{n}]$

Someone whose bowels run (?): A pomegranate. You pour it(s contents) out, and you mix it with the whites of eggs, and you rub it to dough, and you cook it. Afterwards you peel.....⁶²⁵

5.8.8 oya eqooy исиоч егра сагра имоч "someone who pours blood under himself":

⁶²⁴ Translation: Crum et al. 1922: 51-52.

⁶²⁵ Translation: Worrell 1935: 192.

"Someone who pours blood under himself" refers to bleeding from the anus. To treat this disease, Ch 228 recommends eating as much boiled vegetable porridge as possible:

Ch 228

(407) องล еqwoy испоч еграі саграі имоч по $_{5}$ т й $_{5}$ шт по $_{5}$ т й $_{5}$ ооке ехохоуоге пестоу пооуф й $_{4}$ шм (sic) й $_{5}$ с $_{7}$ кос

(407) Someone bleeding from below: Barley flour, husked safflower meal, scorpion grape; cook in gruel. That the patient eats according to his strength.⁶²⁶

The medical recipe O.Mon.Epiph. 574 states: ογα εφαρώνε επείαα νέογν είνανες ανόι εξραι "one who is sick in his interior, where blood throws down". Spitting up blood is not implied her, but rather "casting up blood", which refers to the intestine. This corresponds to the expression νέταμωνε ενέφωνε τ'who is sick in his bowels/intestines". A sulfur ointment should be rubbed on the patient three times a day:

O.Mon.Epiph. 574

ешие
5 илтос истатие еие
дия стат и помит исой ейе
500
А дия и помит исой ейе
500
А дия и помит и по

Concerning someone who is sick in his inward parts, (and) casting up blood: Heat a little radish oil and cast there into a little burnt sulfur; and break a hen's egg into the oil and anoint the sick in his bowels, three time for the day. He shall have relieved (of sickness). 627

145

 $^{^{626}}$ The text may be truncated and you have to read \dagger NAU NaU Nectroc. Chassinat 1921: 318.

⁶²⁷ Author's own translation.

BM 527 $(2)^{628}$ includes the expression letter kapi \dagger cnaq "whose belly bleeds" or "giving blood" in a treatment involving raven blood. It is not mentioned whether the remedy should be drank or if it should be smeared.

5.9 LIVER DISORDERS

For the sick liver, the following recipes are prescribed:

O.Mon.Epiph. 575

н \downarrow е и<u>і</u>,колхол иіляхол елбвос иіляхо ебол + одомде икаролу $_{eyg}$ н \downarrow е иіляхол епукратфи мійдомде ивуівіує мішеь едве ибнияь еддоме йдейероу хил ебеньфине кор \underline{s} хеєнеровій хі

For the sick liver, which is burning outside, the man, who is knocking, so that he cannot sleep: Take three or five nuts, add them to unmixed wine and three or five peppercorns, and roast them, and put them in a garment, and put/lay it thereon.⁶³¹

P. CARLSBERG 500, folio D ro, ll. 10-14

etbeyzhpap eqwwne oyloi[ze zmpmooy pt [eibotanh zieqiìw mapeqcw....

For a sick liver, excrement in the juice of this plant, with honey. Let him drink. ⁶³²

⁶³⁰ Förster 2013: 381.

⁶³² English translation by me of the German translation by Erichsen 1963: 36.

⁶²⁸ Magical recipe. Till 1951a: 113.

⁶²⁹ Till 1951a: 25.

⁶³¹ Translation: Crum and White 1926: 298, with slight modifications. Crum's translation: "Concerning the liver that aileth and whose outer (part) burneth, the man that he should not sleep. Take 3 nuts, or 5, and cast them into unmixed wine, with 3 peppercorns, or 5; and roast them and place them in a cloth and lay it thereon".

Jaundice is also a symptom of a liver condition. The skin's display of elevated bilirubin is known as jaundice. The most common cause of jaundice is liver disease. The skin turns yellow, as do the whites of the eyes. Jaundice is treated by medical and magical means as well, the black and the yellow kind appeared in (P.Macq. I 1, p. 15, ll. 3–7), and the black jaundice appeared in (*ACM*, 305, no. 133) see 6.5. Cod.Med.Copt., p. 243, recipe no. 28 recommended an oral remedy for jaundice consisting of: Greek bean and natron (see 5.16.19):

Cod.Med.Copt., p. 244, recipe no. 42

кеоуа. Корпос поромпе ецөннү гі нрп. СШЛО епетре пецсшма $\dot{\mathbf{D}}$ икатке, 633 чиало. Фацталоо де он мпфиеіктерос. 634

Another: Pigeon droppings rubbed with wine. Smear on the one whose body is (affected by) lice. He will be healed. But it also heals the jaundice. 635

5.10 ANAL DISORDERS

5.10.1 αλπετογρ "Haemorrhoid":

A haemorrhoid is one of the most common ailments that afflict the anus area. A remedy against haemorrhoids (μμως ογρ) ⁶³⁶ is prescribed in SBKopt I 005. The actual remedy consists of soft human faeces and a certain kind of burnt alum. Before applying this remedy, the haemorrhoids are coated in fig milk (Juice of the fig tree) or unmixed wine depending on their condition. In addition, human milk, shrub roots crushed capers, and lupines are used for the treatment:

SBKopt I 005

одарі новен йсіь єдьох но́[хкод. ни недеьнд. едаці одущесодь єь нох одущесодь хі $\underline{\mathbf{p}}$ еді икошьос едуекутк $\overline{\mathbf{s}}$ н одня н $\underline{\mathbf{h}}$ нн и" хеє́и".["и

⁶³³ Cf. катке "lous", Arabic *qaml* قمل. Crum 1939: 102a

⁶³⁴ єктєрос, їктєроς. Liddell/Scott/Jones 1996: 827а.

⁶³⁵ Author's own translation.

⁶³⁶ Till 1951a: 25, with slight modifications.

тагс ерште икте ерос ий исоп имние игсрочреч ехшс ипппагре пестуассшип — есщансший өн өармоүс 637 и ие ипестим срочреч ехшс — екоүшф ехорос евох тагс иагратшр игсрочреч ехшс ипппагре екоүшф етресер иоб терште исгине ехи оүпобе ифе иноүге. Иг., ехи тпобе иноүге (Recto) йоуапе икаевін файтеч хро. игтшге ерште ефшпе аспшбе асер сиоч ипатекбитс хі игиноүне перште икенте перште орофен аспшбе асер сиоч ипатекбитс хі игиноүне икепаріс θ фехффохоу срочреч ехшоу $\frac{1}{2}$

A haemorrhoid: Take 2 units of soft faeces from one abortion ... one unit of burnt greasy (? Or: streaky) alum, mix them together. If a hemorrhoid gets bigger, anoint it twice daily with fig milk, and smear the remedy (listed above) on it for the third time. It will break. When it is broken, crush lupine like stibium, and administer on it. If you want to make them disappear, spread them with unmixed wine and smear the remedy on them. If you want it to be bigger, put a woman's milk (lit. breast milk) on a sycamore-shaped wood and an ax-head to the sycamore patch until it (the milk) becomes thick, and anoint it with it. It will get bigger. And (?) bring/make it burst with the aforementioned, namely, with (with) the "figmilk". If it is broken and bleeding before you found it, take the capper root, crush it, and put it on it. Apply. 638

5.10.2 กิฒนะ євох ฐนิ แหลดเсма "The stones from the anus":

The following recipe details how to expel stones from the anus:

Ch 65

(125) оүпагре ефацөөрапеүе йистфине епеүноеф йтанбитү ецснг \ddot{v} й йхфине (126) йнархаюн фасеүферен де он ййснтанеүнерос фасек \ddot{u} й пеусфиа \ddot{u} й пфи инн (127) фас йтанегоне \ddot{v} й оүнотнес

Δı

⁶³⁷ өҳрчоүс, θέρμος, and Arabic *taramus* ٽر مسن. It is found as өєрчоүс in O.Vind.Copt. 209 (see 3.2.4).

⁶³⁸ English translation by me of the German translation by Till 1951a: 132, with slight modifications.

Фас ййшие евох \overline{g} й пканісма баущір (128) смнринс пx в ψ^{639} оуа епоуа ниооу мій пеуршще йєвіш ψ^{639} нач йчоущи йєїс ψ^{639} оуа епоуа

(125) A remedy to treat those who suffer from the spleen, (126) we have found it written in the books (126) of the ancients. It is also useful for those whose limbs or body are curved and for sand in urine (127) it causes the easy flow of menses in women and expels the stones in the anus: Opopanax, (128) myrrh, gentian, same amount of each; grinding them with a sufficient amount of honey; give him to eat as much as possible with wine. 640

Ch 55 uses the term λελμλωμ⁶⁴¹ to describe the pathological condition of the anus: епкансна ецλελμλωμ "anus that rots", also, the result of the treatment clearly describes the case, as it shows that: † ν̄coλ † епкансна фац ν̄нλλομ⁶⁴² евоλ "It will bring down the corrupt flesh" (see 3.2.8).

Other expressions such as пна พิจิทอธ์ พิพษ "place of making big-excretion" in (Ch 212) (see 5.16.21), and пна หอรูพออธ "seat place" as in (P.Mich. MS 136, p. 12) are used in medical recipes, which most likely refers to the buttocks:

P.Mich. MS 136, p. 12, ll. 198-200

оуанн \overline{n} к \overline{n} не неара ечоуат тиоч + е \overline{n} съар еуъарапе \overline{n} пи \overline{n} не неара ечоуат тиоч + е \overline{n} гъл е \overline{n} арапе \overline{n}

A little fresh fat from a sow: Crush it up. Put it on sores that have appeared at the anus, along with real honey.⁶⁴⁴

⁶³⁹ πχ^ΔΒφ, for κογωμτ, Arabic *kousht* کوش^ٹط. Chassinat 1921: 174.

 $^{^{640}}$ English translation by me of the French translation by Chassinat 1921: 173-174.

⁶⁴¹ It is probably from λωμ, wither, fade. Crum 1939: 142b.

⁶⁴² كمه according to the transcript mode adopted by the author (z = z or z), this word can be one of two forms as follows: الْخَة, from خُمُ have fever or الْخَاة "corrupted flesh, flesh off a bad smell due to putrefaction." The title of the formula shows that we must choose the second. This is a case of gangrene of the anus, and in medication aims to bring down bedsores. Chassinat 1921:

⁶⁴³ на пр нн and на приоос also be used for "abortion".

⁶⁴⁴ Translation: Worrell 1935: 36, with slight modifications. Worrll translates casp into "wound".

5.11 BLADDER DISEASES

5.11.1 фф имн "urine sand"

The main disease related to the bladder was own NMH "urine sand", and there are two Coptic recipes against this condition. Ch 65 recommends a remedy of opopanax, myrrh, costus and honey to be consumed with large amounts as of wine (see 5.10.2). P.Mich.MS 136 recommends ingesting seeds of several plants with honey and wine or beer. This recipe is combined with special techniques of therapeutic exercise such as the patient performing certain movements or taking a hot bath. This procedure should be repeated on three consecutive days:

P.Mich. MS 136, ll. 133-168

етве подомочни// очал йфіламіс// фоймт йал йевріали // фоймт йал йевріселіни // фоймт йал йевріселіни // фоймт йал йевріселіне // йгтріве имооч калас ий и мечерну и печерноч и печера и печер

For the urine sand:⁶⁴⁵ A measure of, three measures of seed, three measures of parsley seed, three measures of dill seed. You put honey on them, and you rub them with one another, and you add them to a cup of

⁶⁴⁵ Worrell translates it into "the fire (?) disease). Worrell 1935: 33.

beer and a cup of wine, and you rub them well with one another, and you make it into three parts, and you take a part with you daily for three days, and you drink seven cups in the..., and you stretch yourself out upon your belly, and they seize your feet, and they stretch them out upon your.... (?), and they take seven turns with you. Then you go down to the warm (bath).

Osphe, Osphe, Osphe, Iosphe, Iosphe, Iosphe, Bibiou, Bibiou, Bibiou, Iasabaoth! Adonai, that ruslest over the four corners of the world, in anything that I desire! I am so-and-so, the son of so-and-so. Straightway, straightway, quickly, quickly!

And you drink seven more cups, and you go to the swimming bath of warm water, and you drink seven more cups, and you come up and drink seven more cups, and you do this daily for three days, drinking (?).... ⁶⁴⁶

5.11.2 мн йсноч "bloody urine":

For MH NCNOQ means "bloody urine" Ch 34 recommends treating the patient with a particular variety of alum and tragacanth. It is presumed that this recipe contains other drugs, however the recipe is unfortunately incomplete:

Ch 34

(67) ота ечрмн йсноч λ нш \equiv йогай 647 $\overline{\lambda}$ тра[каканөнс 648

(67) Someone who urinates blood: Round alum, tragacanth ... 649

A seventh century letter from the priest Gennadios to Pesynthius⁶⁵⁰ (the well-known Bishop of Copts) contains similar symptoms of the disease, however the name of the medicinal plant is not included in the recipes, Till⁶⁵¹ assumes that the complaints probably concerned a bladder catarrh or something similar: "Since I wrote the first letter, I have remembered that in the first letter you wrote that you suffer from your

⁶⁴⁶ Translation: Worrell 1935: 33-34, with slight modifications.

⁶⁴⁷ хнш<u>ы йшжы</u>к, овне йсюўп. Chassinat 1921: 134.

⁶⁴⁸ τρακακνομς, †ρακανοε τραγὰμανθα. Arabic الكثيرا. Chassinat 1921: 136.

⁶⁴⁹ English translation by me of the French translation by Chassinat 1921: 143.

⁶⁵⁰ Revillout 1900: 160 (no. 24).

⁶⁵¹ Till 1951a: 26.

urine (lit. small stool).⁶⁵² I found a plant here (lit. in this place), a senior doctor said to me: "You shall boil it and drink its decoction with a little honey; it is useful". I have sent it to you some to try. If it is useful, we will find more to you…"⁶⁵³

5.12 GENITAL DISEASES

5.12.1 nbag ετμοχε, saxy ετωονε "Sick penis":

The sick penis is one of the most common complaints associated with male diseases, and Coptic medical recipes provide different remedies to treat male diseases. In Ch 39, the penis is known as παωμά μερογτ "the man organ, the penis"; in Ch 26 as παωμά μπρωμέ; and in Cod.Med.Copt., p. 214, recipe no. 2 as βάξ. The common complaints which appeared in the recipes are "be sick "or "be painful". Ch 39, prescribed "one-day collyrium" consists of calamine, saffron, copper, opium, gum, and white lead:

Ch 39

(73) A one day collyrium: Cadmia one drachma, saffron two drachmas copper three drachmas opium two drachmas (74) gum six drachmas; crush them; and make them collyrium; apply. If you add white lead, apply to sick male body, he will be healed.⁶⁵⁵

Cod.Med.Copt., p. 214, recipe no. 2

етве иківе еү \dagger кас фачерфау он епсона игооүт ипршне x_1 и \dagger вотанеі x_2 вахиемоу ин ноуп \dagger інівіон ин оухіваркерон ин оутагт ин оушппон ана вноу кахос x_1 ноукоуі иги x_2 ерооу анаханване иноу гі

⁶⁵² Till mentions that it literary means "kleinem Stuhl". коүт мн has the same meaning of мн "urine". Revillout 1900: 160; Crum 1939: 158a. So, коүт мн refers to urine not stool!

⁶⁵³ English translation by me of the German translation by till 1951a: 26, with slight modifications.

⁶⁵⁴ екфств (ахф, псфиа 200үт. Chassinat 1921: 146.

⁶⁵⁵ English translation by me of the French translation by Chassinat 1921: 146.

хелос нелооле сгенн. Кау ги оуаккіон нтагт. нгбоу [n]ксолб ерооу фантоуло. Кфаноуфф екач еуни евол аланване мноч нгау итрохіскос нгкау фа техріа ги техріа те вел нетрохісхос евол гі мооу исауге хр ϕ

For breasts that have pain – also it is useful for the male human body (i.e penis): Take the plant called cat's eye, white lead, litharge, lead and opium in equal amounts; crush them well, add a little vinegar, (and) mix it with the juice of female grapes, and put in a lead vessel and let it rest, rub in the diseased parts until healing. If you want to keep it (the medicine), mix it up, take it, make them pills and leave them until using; to use it, dissolve the pills in the white of egg (and) apply. 656

Penis afflictions were classified alongside the debilitated breast in the medical recipe Cod.Med.Copt., p. 214, recipe no. 3: ογκιβε εςμόχε αραφερώρα οι ηχοείτ μιν ηβας ετμόχε "a sick breast It also employs for sick (painful) testicle and penis", the recipe recommends to rub the penis with breast milk (see 7.9.2).

5.12.2 องพหาย รัก ที่ยอม หี รัก แต่ตนล ทฤทอนย์ "An abscess in the eyes or on the man's penis":

Like the eye, the penis could also be affected by abscess. Ch 26 recommends a remedy to remove the abscess from the penis (see 3.2.8).

5.12.3 εγλη, εγλε, εηλε, ήλος "wart, callus": 657

The words εγλη, εγλε, εμλε are used in a changeably manner and refer to the nail of the man's penis. A Vatican manuscript provides a remedy for treating this condition, which remarkably contains the same ingredients as the Chassinat Papyrus and also dates back to the 9th-10th cent. CE:

Cod.Med.Copt., p. 243, recipe no. 27

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⁶⁵⁶ Author's own translation.

 $^{^{657}}$ гнхє, Greek $\tilde{\eta}$ хоς "wart, callus". Liddell/Scott/Jones 1996: 769b. Also, it found in Ch 161, Ch 219.

етве оүглн ифасеі евол гипсама ипраме ин нефара ин несаф ин нетниве ифаүноүжевол. 658 фасрфау он инеколоти ин нетгар гі//. Жен теүкегте . Ілауєвол ифорп гі өриши, вафоуф ечлик \mathfrak{sp} үініөіоу \mathfrak{st} ліваркирон \mathfrak{sq} нег иморсуна, внооу ин неуєрну игно// хоу еулалу иврве, игхрф.

For a nail that occurs on man's penis, psora (pl.), sores and finger that cast forth, it is useful also for abscesses and itching on their lions. Wash it first with warm water. Fresh diamond, 100 obols; white lead, 300 obols; litharge, 6 obols; myrtle oil crush them together, put them in receptacle, and apply.⁶⁵⁹

Ch 219

(393) Someone who has nails on the body, lichen or scabies, sores on the dorsum of the hands and fingers; (394) is also useful for hardness and itches on their loins; it is useful for all these ailments. First wash the patient with hot water (395) apply the remedy to them, they will heal: fresh rue hundred drachmas, white lead hundred drachmas, and myrtle oil; crush them together; apply. 664

660 2μλε, Greek ἦλος, "nail", also, it is found in Ch 161; 219.

⁶⁵⁸ That cast forth or swell. Crum 1939: 249a.

⁶⁵⁹ Author's own translation.

⁶⁶¹ λωγτε may be for λωωτε, means "hard, callous of skin, be wounded". Crum 1939: 145b.

⁶⁶² βλαβογα), rue, Arabic sezab μώμ, Greek πηγανον. Rue has been used to treat many ailments, including epilepsy, eye strain, multiple sclerosis and heart conditions. It has also been used as a uterine stimulant to encourage onset of menstruation.

⁶⁶⁴ English translation by me of the French translation by Chassinat 1921: 314.

5.12.4 KOSIT GENE "Sick testicles":

The main complaints related to the testicles were usually φωνε "be sick", φεqe "be swollen" and μοχε "be painful". Ch 169 is a recipe treating testicles that are sick κατα ως. oog means moon, which could perhaps mean "every month". However, the recurrent testicular disease is unknown:

Ch 169

(328) ота ере нецалент фине ката из өни зенбиве \bar{n} тафие фафило отофнот гі евіш тсоот гі селги

(328) Someone whose testicles are sick permanently: Crush stack of laurel leaves; shake them in sieve; mix them with honey; make him drink with hot water.⁶⁶⁵

Ch 170

(329) омеос он гитч йтшре вафоуф ечанк өнөөү гі врвк 666 йг тсооу сенало \odot

(329) Likewise again: Willow's heart, fresh rue; crush them with wine; make the sick drink, they will heal.⁶⁶⁷

Ch 171

(330) oneoc on melilton oyhpīt klom йауеллет өнөөү тсоц гі нр̄п ауацло $\bar{\rm g}$ й тбом йфіноүте

⁶⁶⁵ English translation by me of the French translation by Chassinat 1921: 285.

⁶⁶⁶ врвк, нрнп. Chassinat 1921: 287.

⁶⁶⁷ English translation by me of the French translation by Chassinat 1921: 286.

(330) Likewise again: Sweet clover, rose, crown-of-bride;⁶⁶⁸ crush them; make the patient drink with wine; he will recover by the power of God.⁶⁶⁹

Ch 172

(331) омеос оуа ере нецхоеіт фюне у еуфеце оусооуде йте педооу йн оуан йнрії (332) йаскалон йн оушышу ххы 670 тсоц йус†кос 671 циало \odot йн оуфни йдосй йаранікон 672 \odot

(331) Likewise: Someone whose testicles are sick or swollen: Egg of the day, a spoonful of wine (332) Ascalon, fine oil; make him drink following (his) strength; he will be healed. And a little Arabia soda.⁶⁷³

Cod.Med.Copt., p.214, recipe no. 3 recommends an externally-applied remedy consisting of liniment from breast milk (see 7.9.2).

5.12.5 OYKOYNTY NOYPOME EYOONE "Man's testicle that is painful":

A general expression used for the genitals was $\kappa o \gamma n \tau$. Crum⁶⁷⁴ mentions it as a genital part deriving from the word $\kappa o \gamma n$ "bosom", with the suffix. It rarely appears with the suffix " $\kappa o \gamma n \tau q$ " like in the following recipe $o \gamma \kappa o \gamma n \tau q$ is therefore, to be reproduced analogously with "testicle of a man":

Ch 140

(285) ουκούντα νουρώμε εξώμε έρος έβιω νατμοού βαλ ναβούκ εξώμης κάλως (286) ουρώμου μπ νεύερης χρώ

^{668 &}quot;Euphorbia marginata", corresponds to the Arabic اكليل العروس. Chassinat 1921: 287.

⁶⁶⁹ English translation by me of the French translation by Chassinat 1921: 287.

⁶⁷⁰ องพฐม รัฐฐ, พอง พิพธ. Chassinat 1921: 288.

⁶⁷¹ c†κοc, εις†κοc. Chassinat 1921: 288.

⁶⁷² аранікон stands for аравікон. It is found also in Ch 69 "20СН Йаравікон".

⁶⁷³ English translation by me of the French translation by Chassinat 1921: 288.

⁶⁷⁴ Crum 1939: 111 b.

(285) A testicle of a man that is painful: Honey without water, well crushed Greek bean; (286) knead them together; apply.⁶⁷⁵

5.12.6 OTE ECTRAC OF MHTPA ECONOME ECTRKAC "Painful matrix/womb":

In Coptic medical texts the words oote or ote, which included the term $\mu \dot{\eta} \tau \rho \alpha$, were used to refer to a woman's womb. In most cases, the complaint details "hurt" or "suffering". In the Chassinat papyrus, the disease is always treated with remedies that are introduced by means of kare "tampon":

Ch 24

(49) [оүсгі]н[є єтф] шиє єтєсотє єс†кас гродінон [......]іс оүнр \bar{r} єчокєн (50) [книи]є й \bar{u} ф \bar{v} енооу гі єчі \bar{u} оүоөоү гі оүк \bar{u} оүкн λ нє 676

(49) A sick woman whose matrix is painful: Oil of roses...... wilted roses (?), (50) goose fat; crush them with honey; melt in the fire; apply in tampon.⁶⁷⁷

Ch 123

(259) ογα μητρα εξώωνε εξέκκας τριατος 678 $\rat{2}$ \ddot{a} ακακίας $\rat{2}$ \ddot{a} τααγ επίνες \ddot{n} $\rat{1}$ \ddot{r} $\rat{2}$ ογκλής νας ςάναλο

(259) A sick and painful womb: *Triatos* one drachma, acacia one drachma; put them in oil for three days; apply in tampon to the matrix; she will be healed.⁶⁷⁹

The medical recipe Ch 124, recommended a remedy to treat the pain of matrix, hands and feet: оүмнтра есмах ил генбіх ил генбіх ил генбіх ил генбіх ил генбіх на matrix that is painful, hands with feet" see (5.14.2).

⁶⁷⁵ English translation by me of the French translation by Chassinat 1921: 267.

⁶⁷⁶ Ch 24.

⁶⁷⁷ English translation by me of the French translation by Chassinat 1921: 123.

⁶⁷⁸ Unknown drug.

⁶⁷⁹ English translation by me of the French translation by Chassinat 1921: 244.

Ch 125

(262) Matrix occlusion: Take cumin; crush it; let the woman sit on it; it/she will recover, by God's will.⁶⁸³

In addition, Ch 167 recommends a tampon "the painful matrix of a woman" consists of dodder seeds, oil, grease, storax of aromatic reed juice storax (see 5.8.1).

5.12.7 κε 2τε "lion" or "hip": 684

There are two recipes prescribe for the itchy lions, Ch 219 recommends a remedy for itchy lions, which associated with nails, lichen and scabies (5.12.3), also in Cod.Med.Copt., p. 243, recipe no. 27 the itchy lions associated with nails, psora, and sores as following:

Cod.Med.Copt., p. 243, recipe no. 27

фасруду он инеколоти ин истефе 21// жен теүкегте ілауевол ифорп гі өриши, вафоуф ечлик р ұіміөюү \bar{s} т ліфаркирон $\bar{s}\bar{u}$ нег иморсуна, өнооу ин исуерну игио// хоу суллау иврве, игхрф

It is useful also for abscesses and itchy on their lions: Wash it first with warm water. Fresh diamond, 100 obols; white lead, 300 obols; litharge, 6 obols; myrtle oil crush them together, put them in receptacle, and apply. 685

⁶⁸⁰ opx stands for ωpx, means "be firm, be secure, be fastened" Crum 1939: 530a.

⁶⁸¹ ф**вкШв**, тепне. Chassinat 1921: 247.

⁶⁸² الله Chassinat 1921: 247.

⁶⁸³ English translation by me of the French translation by Chassinat 1921: 247, with slight modifications.

⁶⁸⁴ Chassinat 1921: 314.

⁶⁸⁵ Author's own translation.

5.13 PSYCHOLOGICAL DISORDERS

5.13.1 Insomnia:

There are two recipes to treat sleeping disorders such as insomnia; unfortunately, they now appear only as fragments. The first recipe BKU I 25 consists of some plant leaves with honey, and is prescribed to those who cannot sleep. The same plant is also used in the second recipe, SBKopt. I 004. As for the drug names, only the unidentified Azaboaz is obtained. The third recipe, O.Mon.Epiph. 575, is recommended to treat a sick liver, however, it seems that the treatment was not effective in treating insomnia, but rather caused it (see 5.9):⁶⁸⁶

BKU I 25, ll. 6-8

```
[...е]таюме еметаюва [..] [.....]ваве. бм-півотаік ...] оот † нач арачава
Зіск, who cannot sleep. [.....] leaves...., with honey;
apply to him. He will sleep. 687
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SBKopt. I 004

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єтвє прімнв \Dreve{X}ї [о]уєювє мт[.]фн мкаау[..]м єтє маї [мє] адавоад [4...]* малеф[.....]пєтоу ...[ 6]касею[ For sleep: Take a sheet of the [..]phe and make [...] that [are] these: Azaboaz [....... ^{688}
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5.14 LIMBS DISEASES

5.14.1 πατ

πατ has many comprehensive meanings and can be translated into "knee", "foot", "leg", "the lower leg" or thigh". ⁶⁸⁹ A variety of recipes have been prescribed for knee complaints. Ch 13 prescribed a remedy to treat the painful feet; and Ch 93 is for \bar{n} κωλ⁶⁹⁰ \bar{n} πατ (see 5.6.21):

⁶⁸⁶ Till 1951a: 42.

⁶⁸⁷ Till 1951a: 112.

⁶⁸⁸ Author's own translation.

⁶⁸⁹ Crum 1939: 273b.

⁶⁹⁰ Cf. κλλε, κλ, "joints". Crum 1939: 103b.

Ch 13

(32) [оүа ере нечоіх] йн нечпат †ккас е[.....] ф[.....] ф[.....] (33) [....]хче оүфө пехарване [йн.....ва]ф[оү]ф [е]чөннү ечфнх

ex[mox]

(32) [Someone whose hands] and feet have pain......(33)...... melt galbanum [and] crush and sieve th[em].⁶⁹¹

Ch 214

(386) ота ере генфонте \overline{v} нечот \overline{v} нечтат \overline{v} печсона тнр \overline{v} отвнв \overline{v} хах \overline{v} вние 692 \overline{v} отвно мноот вноот \overline{v} генх \overline{v} счхни хахе ероот фате

(386) Someone who has thorns in the hands and his feet or any part of the body: A sparrow's nest and water *bithos*; crush them with hot vinegar; anoint them; they will fall away.⁶⁹³

5.14.2 GIX

The following recipe was prescribed to treat painful hands and is associated with feet and matrix pain:

Ch 124

(260) Омеос оүмнтра есмах міл гембіх міл гемпат опіон өноц міл оүшыў шпоs (261) міл оүшыў шаврвф сеп оүкаме йсорт йалеу таас еграі ймос снало \odot

⁶⁹¹ English translation by me of the French translation by Chassinat 1921: 98.

⁶⁹² ҳҳҳ ӣвниє: The swallow is usually called вни/ велі, it must be reproach the Bohairic бҳҳ ӣвірі سنونو (KIRCHER, р. 169), бҳіҳ ӣвірі سنونه و هو عصفور الجنه Вніч. Chassinat 1921: 305.

⁶⁹³ English translation by me of the French translation by Chassinat 1921: 305.

(260) Likewise: A matrix that is painful, hands with feet: Opium, crush it with shrew oil (261) and oil of roses; soak wool pessary and apply to the matrix; it will be healed. 694

In addition, in Ch 65, treatments for painful limbs are combined with other different maladies (see 5.16.2).

5.14.3 Togerhte etambe "Painful foot":

The following recipe prescribes to treat the painful foot and depends on a technique of therapeutic exercise:

P. Mich.MS 136, Il. 233-40

ΤΟΥΕΡΗΤΕ ΕΤΟΙΟΝΕ ΤΕΙΧ ΕΤΉΜΑΥ ΤΕΕΦΑСΤΑΣ [Ε]ΜΠΚΟΙΑΧΕ Ν[Γ] ΡΟΟΜΝΤ ΤΕ ΝΝΟΥΦ: ΕΓΤΦ2 ΜΜΟΚ ΜΠΓΦΑΧΕ ΕΜΠΚΙΜΜΟΚ ΕλΑΟΥ ΝΓΠΙΡΟΥΤ ΕΒΟλΓΟΥ ογτωπεληκοτκείον [.] οογηςρέοντωβέε [.....]

The foot that is diseased: It is that hand which anoints it, without your having spoken. And you make three exclamations (?), anointing yourself, without having spoken, without having moved for any reason....⁶⁹⁵

5.12.4 πεσχιον⁶⁹⁶ εμφελεκμα "Inflamed hip":

BKU I 25, ro, l. 16 is a magical recipe prescribed to treat an inflamed hip. It contains the title "[et]Be писхіон єнфелекна". The subsequent recipe BKU I 25, vo, ll. 4-7 apparently medically treats "the same thing". However, the names of the drugs in this recipe are missing. The recipe mentions that the remedy should be drunk by the patient "another (means) for the same thing. [- - -] give it to him with [...] drink. He will get well".

P. Mich.MS 136 is also prescribed for hip problems. The cure is half magical and half medical and consists of aloe, overcooked radish oil and vinegar. This hip ointment is smeared under certain magical rules:

P.Mich.MS 136, ll. 221-241

⁶⁹⁴ English translation by me of the French translation by Chassinat 1921: 244.

⁶⁹⁵ Translation: Worrell 1935: 37.

⁶⁹⁶ Cf. Greek ἰσχίον "hip-joint". Liddell/Scott/Jones 1996: 843a.

оддайдеуикоджбод [:] оодисьеоддавеь [....]

[е] две песхиои докинои одоиглу инолуру одоилу ибитура инора (0) ди инора (0)

For the hip, an approved remedy: An ounce of wax, an ounce of aged vinegar. Melt with turbid vegetable oil. Two grams of aloes. Loosen branches in a date palm to which iron has never been applied, (that is), in which branches have not been gathered, and you are to be have above pieces of wood, upon... fresh... and you put it upon them, and you mix them with the palm branch till they dissolve.⁶⁹⁷

5.14.5 паннікрис "gout":

According to Chassinat, 698 αννικρικ is associated with the Arabic term النِقْرِس and refers to the various articulation of diseases such as gout, arthritis, limb diseases and arthralgia accompanied by swelling. Ch 93 prescribes a collyrium for treating gout (see 5.6.21), it is also treated magically in P.Mich. MS 136, ll. 10–20 (see 6.6.9). The following recipes were prescribed to treat gout:

Ch 118

(250) ουνπράστλον νπασική \int λιθ[αλ]κύρον \int αλος \int πίτην \int ανός \int ον \int κ ελέου χρώ

⁶⁹⁷ Translation: Worrell 1935: 37.

⁶⁹⁸ Chassinat 1921: 205.

⁶⁹⁹ Crum mentions this example, and it may be a variant spelling of ΔCIK. Crum 1939: 18a.

(250) A plaster for the periodic fever or gout: Lith[ar]ge hundred obols, salt hundred obols, pine resin sixteen obols, bitumen twenty obols, oil; apply.⁷⁰⁰

5.14.6 NNENTANEYMEPOC WAEK MIN HEYCOMA "curved limb and body":

Among other maladies this complaint is mentioned in Ch 65 (see 5.10.2), and means "persons whose limbs (μ έλος) and body (σ ã μ α) were curved". ω λ(ε) κ , ω λ κ means "to be bent", and ancient people would say "to bend" from the limbs as opposed to using the word stretching. ⁷⁰¹

5.15 BREAST DISEASES

The Bouriant parchment is the only medical text dedicated to breast disorders. It prescribes different prescriptions for breast issues such as pain and inflammation, and even provides solutions for small breasts and breastfeeding issues. Other medical texts provide one or two recipes against breast diseases. Coptic-speaking physicians seem to have been partly of the opinion that the beneficial remedies of the breasts, which are typically sexual characteristics belonging to females, had an effect on the male sexual characteristics such as the penis and testes.⁷⁰²

5.15.1 ΝΚΙΒΕ ΕΥΤΚΑC OF MOX2 "Painful breasts":

for the painful breast or the breast that has pain Cod.Med.Copt., p. 214, recipe no. 2 prescribes a salve consisting of: cat's eye, white lead, litharge, lead and opium, vinegar, female grape juice. The recipe also provided another way to preserve the same remedy in the form of pills, which must be dissolved in egg whites before using them (see 5.12.1). Also, Cod.Med.Copt., p.214, recipe no. 3 (see 7.9.2), and Cod.Med.Copt., p.214, recipe no. 4, recommended for the pain of the breasts:

Cod.Med.Copt., p.214, recipe no. 4

етве оүківе ес[+кас] \underline{x} і ноуамале ми оүшт [NPIP?] ми оүнег ноүерт \underline{x} ал $[\underline{x}$ оноу ми неур]ну + ерооу се $[\underline{x}$

702 Till 1951a: 21.

⁷⁰⁰ Author's own translation.

⁷⁰¹ Till 1951a: 29.

For a breast that has pain (or sick breast): Take almond, [lard] fat and pink oil in equal amounts; crush them together, apply to them (and) they will be healed.⁷⁰³

5.15.2 κιβε εγφλεκματιστε "Breast inflammation":

Cod.Med.Copt., p. 215, recipe no. 5

..... МИ ОҮИЕЗ ИОҮЕРТ ӨНӨӨҮ ХАХОС ШАҮЕРШАН ОН ЕПХОҮЧ

 \dots And rose oil, crush them, smear her with it. It is also useful for the burning. 704

Cod.Med.Copt., p. 215, recipe no. 8

 $\overline{\mbox{ettbe}}$ гиківе $\mbox{eypackmaticte}$ хі ноугноу ге ми оусауге ми $[\mbox{oy}]$ иг \mbox{ohooy} гі оусоп катаплассе миооу сенал \mbox{om}

For inflamed breasts: Take the salt, egg and oil, crush them together, (use as) a poultice (and) they will be healed. 705

5.15.3 [ετε Νκ] ΙΒΕ ΔΝ ΝΕΎΕΡΝΟΘ "The breasts which are not big":

Having small breasts is one of many complaints, which Cod.Med.Copt., p. 215, and recipe no. 11, have fragmentary preserved.

Cod.Med.Copt., p. 215, recipe no. 11

	ете	NK]	івє	ДN	иеус	ерио	6 XI	ноу	(фа.	• • • • •	 они	ихес	. ем	ю	 NK	івє
ì	١															

⁷⁰³ Author's own translation.

⁷⁰⁴ Author's own translation.

⁷⁰⁵ Author's own translation.

For breasts, so they do not become great: Take.....purple.... the breast......⁷⁰⁶

5.15.4 NKIBE NOYCZIME ETPEYPPOT "breasts of a woman, so they have milk":

The most important recipes related to the breasts were those that helped to increase a woman's breastmilk, as breast feeding was very important in ancient Egypt and a mother was keen to breastfeed her child. The Bouriant Parchment contains some prescriptions that helped to aid breast feeding, in order to produce enough milk for a young child:

Cod.Med.Copt., p.215, recipe no. 6

етве ніківе ноусдіме етреуррате ді нундин еуфооує дармоу ді α

For woman's breasts to give milk: Take dry garlic, boil them in unmixed wine. She should drink in the bath for three days. ⁷⁰⁷

Cod.Med.Copt., p.215, recipe no.7

етве иківе етреуєрште. Ді игиваллавшк лагноу нароусоу пеунооу ифорп ниисшс исеоушн иікооує єущанбо єуоушн фаре поке єіре єои и†ге єчщанбо єуоушн

For breasts, so they have milk: Take Greek beans, crush them; may you drink their water firstly, and then eat some (little food). If they continue eating, the sesame will do the same, if it is continued to be eaten.⁷⁰⁸

Cod.Med.Copt., p.215, recipe no.9

⁷⁰⁷ Author's own translation.

⁷⁰⁶ Author's own translation.

⁷⁰⁸ Author's own translation.

етве виківе етреуєрерштє хі изимаєт иброб \dagger оумістранос миєне ві викеєїрп нессоу ауш катаплассє он иківе он 2 піпаєть сенамоуг

For breasts, so they have milk: Take the juice of herbs give every day to drink a spoonful of this juice in wine; and also anoint the breasts with this remedy, they will be filled.⁷⁰⁹

Cod.Med.Copt., p.215, recipe no.10

κεογω on χι ηγησωβε ηβωητε ομ[c]ογ μ[η ογ]γμογ ησχοή έχη ηκίβε [c]ε[ηωείρε ε]γμες ηέροτε

Another again: Take cucumber leaves, dip them in salt, sprinkle on the breasts, and they will be filled with milk.⁷¹⁰

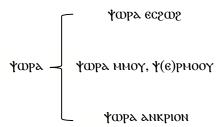
5.16 SKIN DISEASES

5.16.1 Υωρλ, ψώρα "psora"

⁷⁰⁹ Author's own translation.

 $^{^{710}}$ Author's own translation.

Psora was one of the most common skin diseases and generally indicated to various skin conditions. It could affect various parts of the human body. One of the Coptic medical texts mentions that: oan oagooig naci εχη τηγτη εβολ χη τη[ε μ]η πκαχ η[ε][ωλχ εμετηςωμα ηγαρα "From heaven and from the earth dust will come upon you, will lay down on your bodies and make them sick with psora".711 Here, the excitation of psora is defined by the word dust.⁷¹² The Coptic medical recipes recorded different types of psora:



There are some general remedies prescribed to treat psora in such as Ch 43, Ch 162, Ch 190, Ch 219 and Cod.Med.Copt., pp. 242, 243, 244. The most common drugs used for this purpose were various types of oils or fats, sulphur, white lead, litharge, soda, wax, rue, and calamine. Also, substances of plant origin were presented as constituents of such agents. Such drugs had to be mixed with wine. In some recipes, a bath is required:

Ch 43

(79) Omeoc on zililig ūkame θνοού κάλως πάστου $\overline{\text{nn}}$ ούμ $\overline{\text{n}}$ ενάνου εν ουκώς ευκέρα (80) καλύ ωλντεύχρο καλύ ωλντεύχρο καλύ τευφούς κάλως † ούκους νημίζ \mathbf{x}^{713} έρου θνού νίστρο † ενέτκης μν $TeYmp[a]^{714}$

(79) Likewise again: Black myrobalan; 715 crush them well; cook them with good wine over low heat; (80) leave them until they become strong;

⁷¹¹ Wessely 1860: 51.

⁷¹² Psora referred to in Coptic recipes, not what understands by today's medicine. Till 1951a: 29.

⁷¹³ μιcx Arabic *misk* مِسْك, and Greek μόσχος.

⁷¹⁴ This is probably the psorophthalmia ψωροφθαλμία (Oribasius, *Euporistes*, IV, 28; t. V, 716) ringworm of the eyelids; the remedy is for eyes. Chassinat 1921: 148 (footnote 4); 295.

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dry well; add a bit of musk; crush it into powder; apply to those whose eyes are stripped of eyelashes and psora.⁷¹⁶

Ch 190

(354) Oykollion etbe herloctin hin teywpa hin \bar{n} kwp \bar{n} ⁷¹⁷ etéwr kathiac \bar{n} hi xalkoc \bar{n} \bar{n} (355) allwhi \bar{n} \bar{n} ohion \bar{n} \bar{n} naptoctaxoc \bar{n} \bar{n} akakiac \bar{n} \bar{n} komeoc \bar{n} \bar{n} \bar{n} honoy kalwc aly \bar{n} xpw caroyn \bar{n} cabol

(354) A collyrium for darkening, psora, and itchy eye corners: Cadmia eight drachmas, copper four drachmas, (355) aloe two drachmas, opium two obols, Indian spikenard two obols, acacia two obols, gum two drachmas; crush them well; make them a collyrium; use inside or outside.⁷¹⁸

Both Ch 43 and Ch 190 refer to the eyes since all the other diseases mentioned in these recipes concern eye conditions. According to Chassinat, 719 they concern "psore ophthalmia":

Ch 162

(318) ουνωρά μουρ \overline{p} \overline{p} \overline{q} ευντέλ \overline{p} δεν ευρύνε \overline{p} ευμόνους Ηθράχο νές νειμ παςτου \overline{p} καν χρώ

(318) A psora: Wax one ounce, sandalwood one ounce, sulfur six ounces fresh, dry rue, oiled radish; make them cook them well (?); apply.⁷²¹

⁷¹⁶ English translation by me of the French translation by Chassinat 1921: 148.

⁷¹⁷ κωρμ is for κωλμ, "corner of eye". Chassinat 1921: 295.

⁷¹⁸ English translation by me of the French translation by Chassinat 1921: 294-295.

⁷¹⁹ Chassinat 1921: 148.

⁷²⁰ Chassinat thought that the verb πagτ it was written by mistake, and must be written πacτ "cook".

⁷²¹ English translation by me of the French translation by Chassinat 1921: 278.

The following recipes Ch 219 (section 5.12.3), and Cod.Med.Copt., p. 243, recipe no. 27 (see 5.12.2) are almost identical: both of them recommend anointing the patient after a bath with diamonds, white lead and myrtle:

Cod.Med.Copt., p. 241, recipe no. 11

етве не ψ шра. 2 α си наравікши ни оушт прір өнооу ни неуєрну, тш2с епетцішне 2 α тсілоун

Against psora (pl.): Arabic natron and pork fat rub together, smear the sick in the bath.⁷²²

Additionally, Cod.Med.Copt., p. 242 recommends dog excrement to be bound to the diseased part:

Cod.Med.Copt., p. 242, recipe no. 18

екфанхі итраірє ноуоурар игнорс ноу// тоіс ирвоос ріхи не ψ фра, нере фаєкна фюне ирнтоу

If you take dog excrement, put them in a cloth, and apply them on the psora, and inflammation, they will disappear.

5.16.2 ογαπε εco πφωρα "head psora":

Psora could affect various body parts, especially the head,⁷²³ and could be treated with the following recipes:

Ch 60

(121) ουάπε εςο πφωρά $\sqrt{\text{ουσε m}^{724}}$ ωμλτημ 725 θνοού ει εήπχ χρω

⁷²² Author's own translation.

⁷²³ Till 1951a: 30.

⁷²⁴ Флеін, Фласін. Chassinat 1921: 171.

⁷²⁵ It is appeared in the scala Bohairic as שלאה Kircher: 194, and שפאדנה in the scala n° 43 (fol. 57, vo, 1, 1). Chassinat 1921: 171.

(121) A head that afflicted with psora: Seed garden cress, mustard; scrambled with vinegar; apply. 726

Ch 61

- (122) Likewise: Acacia flowers Nilotica and egg white; apply. 727

Ch 62

- (122) omeoc libanoc $\$ \bar{a} miceoc $\$ \bar{a} qnooy $\$ nooy nwlx3 xpw
- (122) Likewise: Incense one drachma, yellow vitriol one drachma; crush them with white of the egg; apply.⁷²⁸

The following recipe prescribes to treat psora on the head and body of a young child:

Ch 38

- (72) A head of a small child affected with psora sycamore milk and remedy from Ethiopia; apply it, the evil will cease. 729

Ch 231

⁷²⁶ English translation by me of the French translation by Chassinat 1921: 171.

⁷²⁷ English translation by me of the French translation by Chassinat 1921: 172.

⁷²⁸ English translation by me of the French translation by Chassinat 1921: 172.

⁷²⁹ English translation from the French translation by Chassinat 1921: 145, with slight modification.

(410) ογκογί νώμρε έρε τέψαπε ω νίζω ει ψωρά μν πεψέωμα ρωχ εένεωβε νθογρε χι (411) νπογκρίμες ει νές νέροψνον \dagger έροογ ωραχο τογωρογε \odot

(410) A small child whose head and body are affected with sore and psora: Burnt willow leaves; take (411) their ashes and rose oil; apply on them; they will be healed by desiccation (dry).⁷³⁰

5.16.3 Ywpa eczwz "Itching Psora":

Itching psora is a kind of psora that appears in Ch 127, which did not seem to present any particular symptoms:

Ch 127

(265) оүүфра ес202 рфх хффхпв22=⁷³¹ $\overline{\text{NF}}$ өнөч кахфс $\overline{\text{MN}}$ оүгних ечхфч фантечснигста (266) кахфс хахфч каач $\overline{\text{VN}}$ панр егач евох $\overline{\text{MNOOY}}$ ечени чиахо $\overline{\text{O}}$ екфантеч етоуамсір он снафооуе

(265) An itchy psora: Roasted black cumin; crush it well with spicy vinegar until it thickens well (266); anoint him (the sick with this mixture), leave it in the air; (then) wash it with hot water; he will be healed. If you apply it as a gnawing ulcer, it will dry.⁷³²

5.16.4 Υωρα ετρωκε εματε "greatly itching psora":

Cod.Med.Copt., p. 242, recipe no. 13

етве мұшра етгшке емате. Xі ноугмх игпасту калшс игпшгт игагисоп гіхи петфшие, унало

⁷³¹ хФф≤пв≥ҳ ≡, оүстікнмнє. Chassinat 1921: 257.

⁷³⁰ Author's own translation.

⁷³² English translation by me of the French translation by Chassinat 1921: 257, with slight modifications.

For psora that is itching greatly: Take good boiled vinegar, pour several times upon the disease, it will recover. 733

5.16.5 Υωρα ανκριον⁷³⁴ "wild psora":

The wild psora seems to have been a special kind of psora; however, it was treated with the same drugs as the common psora:

Cod.Med.Copt., p. 242, recipe no. 16

етве не ψ фра накрюн. тапен 735 $s\bar{a}$ хюаркурон Го \bar{a} өнн натффи Го \bar{a} , хрф.

For wild psora (pl.): Cumin 1 obols; litharge one ounce, quicklime sulfur one ounce, apply.⁷³⁶

Cod.Med.Copt., p. 242, recipe no. 17

екфанхі ненбшве он нките неооүт гі євіш гі гасм гі өни натшфи, игтшгс инет \dot{o} н ψ шра, мечфаєкма голос гішшс

If you take wild fig leaves, honey, baking soda and unquenched sulfur, and smear the psora with it, it cannot be inflamed.⁷³⁷

5.16.6 ψωρα μμογ, ψ(ε) μμοογ: "watery psora"

Watery psora was a kind of psora like an oozing eczema.⁷³⁸ It is worth noting that the treatments used against it were insignificantly different from other psora prescriptions. In this respect, the following five recipes described how to treat this disease:

⁷³³ Author's own translation.

⁷³⁴ Cf. ἄγριος "belonging to the field, wild". Liddell/Scott/Jones 1996: 15a.

⁷³⁵ тапен is for өапен 'cumin'. Zoega 1810: 628.

⁷³⁶ Author's own translation.

⁷³⁷ English translation by me of the German translation by Till 1951: 135.

⁷³⁸ Till 1951a: 30.

Cod.Med.Copt., p. 242, recipe no. 14

екфанхі он ноупіон нг# өноч ни оуноухg, фачеурапече ние ψ фра инооу.

If you take opium and heated it with wax, the water psora will be healed.⁷³⁹

Cod.Med.Copt., p. 243, recipe no. 30

ETBE 2NYPMOOY. II N2NGWBE NOKE, θ NOOY, CW λ G EPAY, $\lambda\lambda\lambda\lambda\lambda$ 2MOY.

For watery psora: Take sesame leaves, crush them into small pieces, and smear them.⁷⁴⁰

Cod.Med.Copt., p. 243, recipe no. 31

κεογα. Ιερέος γασμ ανα, θνοού, † έροού, σεναλο

Another: Purple Iris, soda in equal parts. Crush them, and apply to them. They will be cured. 741

Cod.Med.Copt., p. 243, recipe no. 32

кеоуа он. атрюстафітне нег гих, на# стоу ин неуерну, сф% ерооу.

Another again: Lousewort, oil and vinegar boiled together, and smear them.

Cod.Med.Copt., p. 243, recipe no. 33

⁷³⁹ Author's own translation.

⁷⁴⁰ Author's own translation.

⁷⁴¹ Author's own translation.

кеоуа он етве нефермооу хюаркуроу фіміююн ююу апуроу ана Γ о \bar{b} , моух ρ сатеєре \bar{a} , профе инер имоурсіна. хрф.

Another again (remedy) against the watery psora: Litharge, white lead, dignified sulfur, two grams each; wax one stater and enough myrtle, and apply.⁷⁴²

5.14.7 мехпоне "Ulcer":

μεχπωνε, meaning "ulcer" or "eruption",⁷⁴³ derives from the ancient Egyptian word [mSpn.t],⁷⁴⁴ and corresponds to the Greek term λειχήν and the Arabic word *qub* . It may also refer to the word "lichen".⁷⁴⁵ It is striking that the term μεχπωνε occurs only in Chassinat Papyrus Ch 155, Ch 198, Ch 216 and Ch 219 (see 5.12.3):

Ch 155

(309) оүмехпшие оүшни йкнриес йсантал йапас оүшни йшол 746 ий оүшни йнр $\overline{\text{п}}$ сшл $_{6}$ ерооү

(309) An ulcer: A little old sandalwood ash, a little myrrh and a little wine; anoint them (affected areas).⁷⁴⁷

Ch 198

(365) оүмехпшие өни \mathbb{F} а комеос \mathbb{F} а $\overline{\mathrm{b}}$ хе $\overline{\mathrm{n}}$ трір 748 \mathbb{F} а өнооү гі гних ецхну фантеуснигіста хрш

(365) An ulcer: Sulfur one ounce, gum one ounce, oven shard one ounce; crush them with spicy vinegar until they thicken; and apply.⁷⁴⁹

⁷⁴² Author's own translation.

⁷⁴³ Crum 1939: 231b.

⁷⁴⁴ Černy 1976: 101.

⁷⁴⁵ Chassinat 1921: 274.

⁷⁴⁶ Chassinat translates it "onion", and I argue that τρολ means "myrrh". Chassina 1921: 274.

⁷⁴⁷ English translation by me of the French translation by Chassinat 1921: 274, with slight modification.

⁷⁴⁸ منزف النتور Arabic خزف النتور, and خزف النتور. Chassinat 1921: 298.

⁷⁴⁹ English translation by me of the French translation by Chassinat 1921: 298.

Ch 216

(389) ουπάρρε ετούρι ετοάβολ 750 μιν νηθέχπωνε ωρώγρωση δε ον επλύγη νίμ ετχο $\overline{\rho}$ τού 5 $\overline{\Delta}$ εήμχ 6 750 νημαίνει του ωρντούμρως χρώ σαβολ 750 σαδούν

(389) A remedy for external fistula and ulcers, it is also appropriate for any infected wound: Copper rust four drachmas, (390) slate stone four drachmas, vinegar one ounce, honey dates sufficient quantity; cook them until they turn dark-hued; apply outside or inside.⁷⁵²

5.16.8 MEXTIGNE ECO NCAO "lichen ulcerated":

мехпоне есо недо means "lichen that is sore". Chassinat 153 uses the expression 'eczéma impétigineux'.

Ch 163

(319) оүнөх пшие өсш йсаш HOA A 754 етанк 5 \bar{a} рюдакүрөн 755 5 \bar{a} оүлө йгнйх иег печоще хрш

(319) A lichen ulcerated: Fresh rue one drachma, litharge four drachmas, a spoonful of vinegar, enough oil; apply.⁷⁵⁶

5.16.9 μεχπώνε νζοούτ "male ulcer":

μεχπωνε νεοούτ literary means "male ulcer" corresponds to the Greek word λειχήν ἄγριον, i.e., "the wild lichen": 757

⁷⁵⁰ Literally means "external flesh".

⁷⁵² English translation by me of the French translation by Chassinat 1921: 307.

⁷⁵³ Chassinat 1921: 275.

⁷⁵⁴ **HΘ**Δλλ = ΒλΟ)ΟΥΟ).

⁷⁵⁵ ριθαλκγρον, (λιθαρκγρον), λιθαργύρος. Chassinat 1921: 279.

⁷⁵⁶ English translation by me of the French translation by Chassinat 1921: 279.

⁷⁵⁷ Chassinat 1921: 275.

Ch 217

(391) оүмехпшие йгооүт ноүне йхин гних ечхни копрос йөшлу 758 өнооү калшс хрш ©

(391) A wild ulcer: Thorny spurge roots, spicy vinegar, sheep dung; crush them well; apply.⁷⁵⁹

Ch 218

(392) ομέος αλκέρε πτηστ πέςτη 21 21 21 μες τω25 εροού έκθμο μμου κατά con έκτωςς

(392) Likewise: Fish ash; cook it with vinegar and oil; anoint them (diseased parts). Heat it each time you anoint.⁷⁶⁰

5.16.10 иснує єткик: "bareness shins":

мсние еткик refers to a disease that destroys the skin, 761 which was related to psora and affect one's eyelashes:

Ch 185

(347) ογα єрє νεцсивє кик λіваноу $\mathfrak f$ сіλкоу $\mathfrak f$ †іміθіоу катміас $\mathfrak f$ єпоуа θνοοу каλώς χρώ $\mathfrak O$

(347) Someone whose shins become bare: Incense, red lead, white lead, cadmia, one drachma of each; crush them well; apply. 762

Ch 186

 $^{^{758}}$ boly= ecooy.

⁷⁵⁹ English translation by me of the French translation by Chassinat 1921: 279.

⁷⁶⁰ English translation by me of the French translation by Chassinat 1921: 311.

⁷⁶¹ Till 1951a: 31

⁷⁶² English translation by me of The French translation by Chassinat 1921: 292.

(348) omeoc on nchye etkhk libanoyc f katmiac f timibion f lyablakypon f ā etioya bnooy kalwc xpw

(348) Likewise again: Bareness shins: incense, red lead, white lead, cadmia, one drachma of each; crush them well; apply.⁷⁶³

5.16.11 2ω2 and 2ωκ: "itching"

These two terms refer to a type of itching that affected the whole body, including the nails and loins:

Ch 219

(393) оүа ечо йгнхе⁷⁶⁴ \overline{v} й печсама й мехпане \overline{e} \overline{v} фра мй йсаар йкоүнтоү аүш йтнве (394) арачрарау де он йхате⁷⁶⁵ ий йгар \overline{e} \overline{v} неүкегте арачрарау ерооу тнроу егар \overline{v} евох йөөр(395)нон йарор \overline{v} \overline{v} піпагре ерооу арххо вафоуср⁷⁶⁶ ечхнк \overline{v} \overline{v} үніөгон (sic) \overline{v} \overline{v} \overline{v} \overline{v} доор \overline{v} $\overline{$

(393) Someone who has nails on the body, lichen or scabies, sores on the dorsum of the hands and fingers; (394) is also useful for hardness and itches on their loins; it is useful for all these ailments. First wash the patient with hot water (395) apply the remedy to them, they will be healed: fresh rue hundred drachmas, white lead hundred drachmas, and myrtle oil; crush them together; apply.⁷⁶⁸

⁷⁶³ English translation by me of The French translation by Chassinat 1921: 293.

⁷⁶⁴ 2Hλε, Greek ἦλος, "nail", also, it is found in Ch 161; 219.

⁷⁶⁵ λωγτε may be for λωωτε, means "hard, callous of skin, be wounded". Crum 1939: 145b.

⁷⁶⁶ въσρογα), rue, Arabic sezab שבוׁש, Greek πηγανον. Rue has been used to treat many ailments, including epilepsy, eye strain, multiple sclerosis and heart conditions. It has also been used as a uterine stimulant to encourage onset of menstruation.

⁷⁶⁷ **Ш** э ἔξοωβ**Ш**в, нег йноγλснин (μυρινέλαιον, Dioscorides, I, 39). Cf. норсуна from Cod.Med.Copt., p. 243, recipe no. 27, and норсиа from Cod.Med.Copt., p. 243, recipe no. 33; ноурсине from Cod.Med.Copt., p. 243, recipe no. 35; тноурсунн , υ (scala n° 43, fol. 56, ro, 1. 13); тнорсин (scala n° 44, fol. 81, vo, 1° col., 1. 16). Chassinat 1921: 315.

⁷⁶⁸ English translation by me of The French translation by Chassinat 1921: 314.

Cod.Med.Copt., p. 241, recipe no. 3

етве т \dagger шра ин нетешке еријан петешке ен печсшна тнру жики ен оугих нөр# ишн, чиаентон

For psora and scrape that are itching in all over his body: Wash it with hot vinegar, it will be relieved.⁷⁶⁹

Cod.Med.Copt., p. 241, recipe no. 4

етве неоурнте етршке. X_1 ноуаке еч// фоушоу нгпасти z_1 нооу z_1 нег ноунрт нгкатаплассе ннеоуерн// те етршке.

For legs that are itching: Take dry ake (= sesame?), Boil it with water and rose oil, and use it on the legs that are itching.⁷⁷⁰

Cod.Med.Copt., p. 241, recipe no. 5

ekajanzi on noyexhlemz 771 nphnoq zi xame $/\!\!/$ melon nploole epooy, ajaylo.

Also, if you take a sour grape, rub them with camomiles and smear them (= the legs), they will heal.⁷⁷²

Cod.Med.Copt., p. 241, recipe no. 6

екајанхі мпвуле итсооуге есбиб гіхи гихввес иглала исоурнте етгаке, ајауафелеі

⁷⁶⁹ Author's own translation.

⁷⁷⁰ Author's own translation.

⁷⁷¹ EAHARMS stands for EAEARMS "unripe, sour grape".

⁷⁷² Author's own translation.

Taking the cooked white of egg (or: yolk) on the embers, and smearing it on the itchy legs, they will help.⁷⁷³

Cod.Med.Copt., p. 241, recipe no. 7

екфанхі ноуффве иглармец игкатаплассе инеоуернте етрф $/\!\!/$ ке, сенаемтон.

If you take a cucumber, cook it, and smear it on the itchy legs, they will be relieved.

Cod.Med.Copt., p. 241, recipe no. 8

екфан x_1 мпехухос птскіхха ете таххфіо те ми истигоуи иоухомфпепон игтагсоу, сенаємтон.

If you take the juice of a squill, that is the aloe, and rub the inside of a cucumis melo and anoint them (i.e. the sick legs), they be relieved.⁷⁷⁴

Cod.Med.Copt., p. 242, recipe no. 25

етве оуршие ере печсшна gшке. стафітне акріас 775 Го $\bar{\epsilon}'$ gаси Го $\bar{\epsilon}'$ кісіреос 776 Го $\bar{\epsilon}'$ λ іфаркурос Го $\bar{\epsilon}'$ фил Го $\bar{\epsilon}'$ кіміноу Го $\bar{\epsilon}'$, итооу тнроу филооу калше, дітоу имиок етсілоуи. Єрщай пршиє \dagger вште gи тсілоуи \dagger епечсшна маречgітч, мийсше игдакиеч gі фриши .

For a man whose body is itching: Lousewort six ounces, natron six ounces, pumice six ounces, six ounces of litharge, sulfur six ounces, cumin six ounces. Grind them all well, take them with you in the bathroom. If the

⁷⁷³ Author's own translation.

⁷⁷⁴ Author's own translation.

⁷⁷⁵ Greek σταφϊς αγρια this is the sharp or lark spur, *Delphinium Staphis agria*. It is called נייני ולפול literally 'Mountain raisins' in Ibn Al-Baitar. Till 1951a: 72.

⁷⁷⁶ It is called in Arabic (فينج) قينك (خفاف). حجر شفاف (خفاف). حجر شفاف (خفاف). Till 1951a: 50.

person sweats in the bath, give (the remedy) to his body, let him rub it. Then bathe (wash) him with warm water.⁷⁷⁷

Cod.Med.Copt., p. 243, recipe no. 29

ετβε ογρώμε είζωκε κάλως να να τευάπε ωλ νευούερητε. α να νούεζετης νέαρμ νέης είγακς μν ουλίτρα νέας μν ούλα νέκαμουλίας μν ούξα νακριάςταφις, κούκε να βάνος γοή ιερεςιλλικής τοή έμα Ω, νές ενευρώφε. Χρώ εν τείοούν.

For someone who is itching completely from his head to his feet: Take one xestes dregs of burning vinegar, one pound of natron, one pound of scammony, eight ounces, one xestes lousewort, frankincense tree, eight ounces; illyrian iris eight ounces, vinegar; enough oil. Apply it in the bath.⁷⁷⁹

Cod.Med.Copt., p. 241, recipe no. 13

етве мұшра етгшке емате. Xі ноугмx нгнасту калшс нгпшгxт нгарисоп гіхи нетxдшке, унало.

Against the violently itchy psora (pl.): Take vinegar, cook it well, (and) pour it many times over the sickness. He will be healed.⁷⁸⁰

It is interesting that expressions such as ογρωμε είναι καλώς καλώς καιν τείαπε ώς κείναι του "a person who is itching violently from his head to his legs, or πετρώκε εμ πείνωμα τιρί "who scrapes in all over his body" certainly imply the same denotation of ογρωμε ερεπείνωμα εώκε "a man whose body scrapes/itches" and πείνωμα εώκε "body itch" (Cod.Med.Copt., p. 244 recipe no. 26).

 778 ופףפכ ואאוארכ, פופףפסכ, ופףפכ, ופףסטכ, Arabic ווע, Till 1951a: 94.

⁷⁷⁷ Author's own translation.

⁷⁷⁹ Author's own translation.

⁷⁸⁰ Author's own translation.

5.16.11 coma equ κατκε/ ω πκατκε "The body which affected by louse":

The body which affected by louse, the using of word $katke^{781}$ refers to a special kind of insect that affects the body:

Cod.Med.Copt., p. 244, recipe no. 41

етве нетере пеусшна ешке еч $\dot{\omega}$ пкатке. χ і ноукоуі ммн ми оугаси ми оугих, онооу гіоусоп, хітоу єтсіооуи, тшес епеусшна игн// тоу, чиало мииса етреч χ шки тарсч инее имее гі нрп.

For people whose bodies are affected by the louse: Take a little urine, soda, vinegar; rub them together, take them to the bathroom, anoint their body with them, he will be healed. After bathing, anoint him with real oil or wine. 782

Cod.Med.Copt., p. 244, recipe no. 42

кеоүа. Корпос перомпе ецөннү гі нрп. Сшхо епетре пецсшма $\dot{\varpi}$ икатке, чиахо. Фацтахоо де он мпфиеіктерос. 783

Another: Pigeon droppings rubbed with wine. Smear on the one whose body is (affected by) lice. He will be healed. But it also heals the jaundice.⁷⁸⁴

5.16.12 name, name, neme "pustule":

These terms were interchangeably used to express the skin condition called pustule, which in Arabic hab, $habah \stackrel{785}{=} .$

It affected the face or hand and could be painful and cause a burning sensation:

⁷⁸¹ Cf. каткє, "louse", Arabic *qaml* فمل. Crum 1939: 102a.

⁷⁸² Author's own translation.

⁷⁸³ єктерос, їктероς. Liddell/Scott/Jones 1996: 827а.

⁷⁸⁴ Author's own translation.

⁷⁸⁵ Crum 1939: 278b.

Ch 215

(387) ουπάψε εςτώρε νιωέτ εςτικάς δι νακ νίζενεωβε νθούρε 21

μεσμούσε σι μοού μεύουε (388) μούσμω σι κρόκος σι μοού μωυ $\bar{\chi}$ ύ \equiv μμ

ογκογί ηλκ ελιμ⁷⁸⁷ θησος μπι ογκογί πληκρατώρ χρώ

(387) A pustule that is burning as fire and has pain: Take willow leaves,

purslane, the nightshade juice (388), saffron, egg white and a little opium;

crush them with a little pure wine; apply. 788

P.Mich. MS 136, l. 186-193

etbe oynaeige ec $\overline{2m}$ fo findume oyaibanoc üzenikon cag \overline{q} üganat

2ΙΑΟΥCOΟΥ ΝΚΑΜΕ ΟΥΤΑΠ ΝΠΕCOΟΥ EΥΡΟΧΌ ΟΥ ΜΗΜΟΟΥ ΝΚΟΥΙ ΑΦΘΑΡΤΟC

оухок $\bar{\mathbf{n}}$ $\overline{\mathbf{2MX}}$ $\mathbf{64XH4}$ таху $\mathbf{60Y00K6}$ $\bar{\mathbf{n}}$ врре $\mathbf{66XHP}$ пастоу ин и $\mathbf{6Y6PHY}$

періхрід ймооу йоумнее йеівші

For a case of the pustule in the face of the man: Some imported incense,

seven palm branches (?), with a black sheep, (or rather) a burnt horn of the

sheep, a little uncorrupted urine, a lok of acrid vinegar. Put them into a

new, burnt (?) ... (?), bake them one another. Apply them with an ibis

feather.789

O. CrumST 297

O. CrumST 297 is a letter that mentions a remedy in the form of an orpiment to treat hand pustules:

⁷⁸⁶ ωλχ⁄≡, cooγγε. Chassinat 1921: 307.

⁷⁸⁷ λκ. ελιι, οπιον, ὂπιου. Chassinat 1921: 307.

⁷⁸⁸ Author's own translation.

⁷⁸⁹ Translation: Worrell 1935: 35.

182

р їакшв єтсраї йпеч меріт йєїшт хє хаоу офха йнарсенікшн 790 [и]а \hat{i} хєтабіх о йпіцьє †фіне єршти ри пхоєїс 791

+ Jakob who writes to his beloved father send 70 measures⁷⁹² of the orpiment to me because my hand produces a pustule, I greet you in the Lord.⁷⁹³

P.Mich. MS 136, ll. 183-186

йар сенікон тиооу $\overline{\text{им}}$ иеуерну періхріа ймооу ноумнує йуівші >>>

For the pustule which leaves a crust: A branch of artemisia (?), four staters of arsenical soda. Grind them up with one another. Apply them with an ibis feather.⁷⁹⁴

5.16.14 acxapa, ἐσχάρα "Scab, eschar":

Ch 222

(400) оүасхара 795 єдко ином өнооү (sic) аау йзруєї оүф (401) гі євіф иг † єроц кнаўфпінре ©

(400) A scab: Tamarisk bark, crush it; make them powder mixture or (401) with honey; apply to it, you will be amazed.⁷⁹⁶

5.16.15 амон, оуамоне, моне "Gangrene":⁷⁹⁷

For gangrene Ch 121 recommends a powder (see 7.1.2). In addition, the following recipes Ch 144 and Ch 159 recommended remedies for gangrene:

⁷⁹⁰ Cf. ἀρσενικόν "arsenic, yellow orpiment". Liddell/Scott/Jones 1996: 247b.

⁷⁹¹ Unpublished letter. Crum 1921: 80.

⁷⁹² Cf. 2xa, 0xa "vessel, measure". Crum 1939: 743a.

⁷⁹³ Author's own translation.

⁷⁹⁴ Translation: Worrell 1935: 35, with slight modifications.

⁷⁹⁵ αςαρα, ἐσχάρα.

⁷⁹⁶ English translation by me of the French translation by Chassinat 1921: 315.

⁷⁹⁷ Greek: γάγγραιωα. Crum 1939: 255a.

Ch 144

(293) Gangrene: Orpiment four drachmas; realgar four drachmas; white vitriol four drachmas, quicklime, pure honey; use to them; they will heal.⁷⁹⁸

Ch 159

(314) оү
а йта паач йисчиаже роуамоне 799 хі \bar{z} йкратос йар
атос йартинесіс счршх міл оусчіш хрш єрооу

(314) Someone whose gums have gangrene: Take seven burnt ambrosia branches and honey; use for them.

5.16.16 оүамдар, амдар "Ulcer, phagedena":800

Ch 35

(68) оуамијар етреска \overline{z} к сілікоу \overline{a} луварку[роу.

(68) Gnawing ulcer, to cause it heal: Minium one, litha[rge............⁸⁰¹

⁷⁹⁸ English translation by me of the French translation by Chassinat 1921: 269.

⁷⁹⁹ The term роуамоме "gangrene" appears in the New Testament 2 Timothy 2:17: аусо песраже нароуамоме ное ноугагграна. на еуевол не еуменаюс инфільтос "And their talk will spread like gangrene. Among them are Hymenaeus and philetus".

⁸⁰⁰ Chassinat 1921: 108.

⁸⁰¹ Author's own translation.

5.16.17 cip "Melanodermia":

Ch 22

(47) Oycip eqpamaze zi kente zi komme zi eqi ω † nay ñeic†koc teyoy ω hala coy mooy ñkente ex ω y

(47) A melanoderma: Flax seed, fig, gum, honey; give them food according to his strength, but pour fig juice on them. 802

5.16.18 оүамсір⁸⁰³ "Melanose":

Ch 20

(43) [A plaster for] melanose, softening of the eye, vesicular rash, and every uncorrupted sore (44) two ounces, litharge (?) two ounces, salt an ounce, six ounces wax, oil a pound; cook with oil wax; (45) [pound] the dray materials in a mortar with good vinegar; add them (in oil and the wax) (46); mix everything well together; and apply.

⁸⁰² English translation by me of the French translation by Chassinat 1921: 111.

⁸⁰³ ογαμαιρ, αμαιρ "Melanose, melanic accidents causing softening and destruction of normal (simple melanosis) or pathological (melanin tumors or cancer) tissues". Chassinat 1921:108.

(338) оуамсір обі йснує біб арсунікон уфофв ω^{804} йвррє єтр ω х фиооу ках оуофмоу гі єчі ω йатмооу хр ω

(338) A melanosis: Liquid alum, pepper, orpiment, burnt new paper, crush them well; mix with honey without water; and apply. 805

5.16.19 ceet "Leprosy":

cegt, meaning "leprosy", ⁸⁰⁶ derives from the ancient Egyptian is sdhw. Leprosy has been treated in Coptic medical texts. It is caused by the bacteria *Mycobacterium*. ⁸⁰⁷ The following recipe was prescribed to treat leprosy:

Cod.Med.Copt., p. 243, recipe no. 28

етве фине им псивае им игиже им прупар им пинктерос ауи иеблооте. 808 мароуси моугкуамос ирухником ете оувахвик те, интроу. Сооц пет// егиак . Фасеіме епеснт итмос 809 ммоу мөн моумооу еацеі ево λ // игитоу еци мауам исмоц

For all diseases, the leprosy, itching, the liver, jaundice, and kidneys: let them drink a Greek bean infusion which is a raven eye (with) natron. Drink as much as you like. It will bring down the water *-Mos* come from their bottom, it will be as the color of blood.⁸¹⁰

⁸⁰⁴ үөофво, халтнс (хартнс). Chassinat 1921: 290.

⁸⁰⁵ English translation by me of the French translation by Chassinat 1921: 290.

⁸⁰⁶ Matt 8:3: оүор стачсоүтсн течхіх свол ачоп немач счхю йнос. Хе тоүшо натоуво. оүор сатотч ачтоуво йхенпеч серт "And having stretched out his hand, he touched him, saying: I wish be cleansed." And immediately his leprosy was cleansed". Horner, I, 2010: 52-53.

⁸⁰⁷ Nunn 1997: 74.

⁸⁰⁸ gr.ti · grg.ti, σλοοτε ολοοσε. Westendorf 1999: 1. 187.

⁸⁰⁹ Perhaps it is the sediment гмоосгрүм.

⁸¹⁰ Author's own translation.

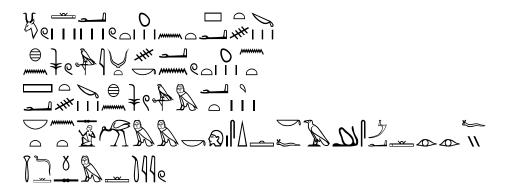
Proof of disease in the Early Dynastic Period remains dubious, nevertheless a Coptic Christian mummy (6th cent. AD) from El Bigha in Nubia, discovered by Elliot Smith and Derry (1910), demonstrates evidence of leprosy:⁸¹¹ There is evidence for leprosy in the medical papyri 'aat net Khonsu':

Pap. Ebers 874



"Instructions for a tumour of Khonsu. If you examine a large tumour of Khonsu in any part of a man and it is terrible and it has made many swellings. Something has appeared in it like that in which there is air. ... Then you shall say concerning it: It is a swelling of Khonsu. You should not do anything against it." 812

Perhaps a somewhat different type of Khonsu's tumour (anut) features in Ebers 877:



⁸¹¹ Cockburn and other 1998:42.

⁸¹² Nunn 1997: 75.

"Instructions for an anut-tumour of the slaughter of Khonsu. If you examine an anut-tumour for the slaughter of Konsu in any part of a man and you find its head pointed and its base (?) is straight; his two eyes are green (wadj) and burning; his flesh is hot under it...If you find them on his two arms, his pelvis and is thighs, pus [being] in them, you should not do anything against it." 813

The word leprosy stems from the ancient Greek $\lambda \epsilon \pi \rho \alpha$ which appears in the medical writings of Hippocrates and in the works of several Roman authors under the term $\epsilon \lambda \epsilon \rho \alpha \nu \tau \alpha \sigma \omega \zeta$ elephantiasis "elephant disease". ⁸¹⁴

5.16.20 cay, wew "sore":

Both of cag (Sahidic) and gag (Faiyumic) mean "sore". They refer to a type of skin diseases that appear over various parts of the body and could specifically affect the anus (P.Mich. MS 136), forearm (P.KölnÄgypt. 12), and the dorsum of the hand (Ch 219, section 5.12.3). On two occasions it corresponds to the skin condition "psora" in Cod.Med.Copt., p. 243; Ch 219; and Ch 231, which prescribes a remedy against psora on the head and body of a young child (see 5.16.2). In Ch 197 cag "a sore" can be scattered and opened:

P.Mich. MS 136, p. 12, ll. 198-200

оуфни йкиие иефф ечоуфт тиоч + егисьф еуаффпе π пилиегиоос ... [π евіф π π π

A little fresh fat from a sow: Crush it. Put it on sores that have appeared at the anus, along with genuine honey.⁸¹⁵

P.KölnÄgypt. 12

пісі ми тепиє гі ці нецтех ми нецгові 816 ці оусатнихі євах миац ми оусатнихі оуҳас игмоў ми сатних $\bar{\rm b}$ минсеос ми сатних $\bar{\rm b}$ ихахкос ми оумехих итеп ка міні итсілоўи маітоў еўсап маі епфеф ипмері

⁸¹³ Nunn 1997: 75.

⁸¹⁴ Schelberg 2001: 57–58.

⁸¹⁵ Author's own translation.

⁸¹⁶ Сf. 2008 (Sahidic), ов; 20081, ови, ови (Faiyumic), "horn". Crum 1939: 696а.

Cook with caraway and take its branches and horns. Take one stater of it and one stater salt and two staters vitriol and two staters copper and ashes of horn. Prepare the bath daily; give them to the lichen of the forearm. 817

Ch 197

(363) Oycad) etrequaddre ebol es teqoyadn moyèr f \bar{a} cantel f \bar{b} khnne ñegad natemoy f \bar{a} (364) mooy ñhen ethag f \bar{a} hactoy ñn neyerhy xra erooy $\bar{\odot}$

(363) A sore that disperses/scattering and opens: Wax one ounce, sandalwood two ounces, unsalted pork fat one ounce, (364) decoction of split mouse an ounce; cook them together; apply for them.⁸¹⁸

5.16.21 оүннге "Abscess, Tumor":

оумнее was a skin disease that affected the eye (see 5.10.2). The word мнее indicates that it was a painful collection of pus under the skin. It affected the skin and also appeared on penis and anus. Many recipes have been prescribed for treating the abscess using different remedies types such as a powder (Ch 142), (Ch 26 see 3.2.8), a wick (Ch 25, Ch 26), or an ointment, of rose oil, copper and alum. The success of the remedies promised by recipes were: смаєї мауас "it will go away by itself", смаєї єгр[аї] "it will come down", савоже єграї "it will leap down", and фаспорез "it will open":

Ch 27

(58) Омеос он кемнге үбү а харкос $\overline{\mathbf{a}}$ стептеріас $\overline{\mathbf{a}}$ пведе $\overline{\mathbf{b}}$ өнооү кайшс хрш

(58) Likewise again: Other abscess: Copper one (part), alum one (part), alum one (part), gum ½ (part); grind them well; apply. 819

⁸¹⁷ Author's own translation.

⁸¹⁸ English translation by me of the French translation by Chassinat 1921: 297, with slight modifications.

⁸¹⁹ English translation by me of the French translation by Chassinat 1921: 131.

Ch 28

(59) Omeoc on kemhze kangapic \overline{A} xapkiteoc \overline{A} x $_{\mathcal{X}}$ \overline{A} fixe= $\lambda \omega$ \overline{A} gnooy zi zh \overline{A} cezcwzoy \overline{A} toot \overline{A} thate charies \overline{A} \overline{A}

(59) Likewise again, another abscess: Cantharides four (parts), white vitriol four (parts), copper four (parts); crush them with vinegar; rub it in the area of the abscess; it will come down.⁸²⁰

Ch 29

Ch 25

(51) An abscess, so that it opens: Blue vitriol four drachmas, white vitriol four drachmas, copper scales four drachmas, gum four drachmas, (52)

⁸²⁰ English translation by me of the French translation by Chassinat 1921: 131.

⁸²¹ Cf. амкам, "kind of vitriol". Crum 1939: 12a.

⁸²² English translation by me of the French translation by Chassinat 1921: 131.

⁸²³ Cf. Διφργγος "diphryges: a special kind of clay, (or) slag of copper-melting furnaces (unpure calamine), (or) iron oxid". Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C8808], (last accessed: 26.01.2021).

diphryges four drachmas; crush them with vinegar; make them into a wick, apply it, it will open.⁸²⁴

Ch 142

(288) A good powder for abscess, it cleans them and fills them: Fresh yellow vitriol four drachmas, (289) white vitriol four drachmas, aristolochia three drachmas, ten ounces, scales (of copper) four drachmas; grind them together; use in powder. 826

Ch 150

(304) An abscess: Cantharides one drachma, copper one drachma, ½ ounce white vitriol, rose oil; grind them until they thicken; apply. 828

Ch 152

(306) оүмнге катміас халкоү үоү гмоү
 лтооү оүа епоүа өнөөү калшс хрш снаез еграі

⁸²⁴ English translation by me of the French translation by Chassinat 1921: 126.

 $^{^{825}}$ אבץ is a qualitative form of אסץ? "to fill". Cf. אסץ? "fill". Crum 1939: 208a.

⁸²⁶ English translation by me of the French translation by Chassinat 1921: 268.

⁸²⁷ κα is for καλως. Chassinat 1921: 272.

⁸²⁸ English translation by me of the French translation by Chassinat 1921: 272.

(306) An abscess: cadmia, copper, copper rust, mountain salt, same amount of each; grind them well; use; it will come down.⁸²⁹

Ch 175

(335) OYMH26 CTAKMA XAXKOC $\$ \bar{B} KEPHT \bar{N} O50 $\$ \bar{B} XX $\$ \bar{f} XPW $\$

(335) An abscess: Copper liquor two drachmas, pork *keret* two drachmas, copper six drachmas; apply.⁸³⁰

Ch 176

(336) онеос оүмнге катмас f \overline{a} місеос f \overline{a} х χ f \overline{a} ойнс f \overline{a} хіθір \overline{g} f \overline{a} хакітеос (sic) f \overline{a} (337) мнин йкоүї йфнре \r $\overline{\lambda}\overline{\Delta}$ өнөөү калфс ий тин и \overline{h} f ерөөү фаүло \odot

(336) Likewise, an abscess: Cadmia one ounce, yellow vitriol one ounce, copper one ounce, vinegar one ounce, tragacanth one ounce, white vitriol one ounce, (337) small child's urine thirty-four drachmas; grind them well with urine; apply them, they will heal.⁸³¹

Ch 212

(382) оүннге есг \bar{n} пма \bar{n} рноб \bar{n} мн 832 калаканөоү 833 гі бшве \bar{n} г \dagger т и \bar{n} оүшн \bar{n} еүфорвіоү ецбнб (383) гі бшве \bar{n} мнолохн \bar{n} агр өнооү и \bar{n} унеүернү гі нег \bar{n} гро \dagger нон \dagger ерооү \bar{n} оүмнге \bar{n} гвоүі хі пвеке \bar{n} дор \bar{n}

(382) A urethral abscesses:⁸³⁴ Blue vitriol, cabbage leaf, with part of roasted spurge, (383) wild mallow leaf; grind them well together with rose oil; give them an ibis feather. Take your wage in advance.⁸³⁵

⁸²⁹ English translation by me of the French translation by Chassinat 1921: 273.

⁸³⁰ English translation by me of the French translation by Chassinat 1921: 273.

⁸³¹ English translation by me of the French translation by Chassinat 1921: 289.

⁸³² Chassinat translated it "Abces de l'uretre". Chassinat 1921: 304. Perhaps it refers to the anus.

⁸³³ Cf. Χάλκανθον "solution of blue vitriol (copper sulphate), used for ink and for shoemaker's blacking". Liddell/Scott/Jones 1996: 1972b.

⁸³⁴ Literary: Abscess where urine becomes great.

⁸³⁵ English translation by me of the French translation by Chassinat 1921: 304.

5.17 DISEASE OR CONDITION THAT AFFECTS MULTIPLE ORGANS

5.17.1 σραφε "Swellings"

αράφε or αράβε refer to swellings; under this idiom one may think of all kinds of tumours. The Coptic medical texts mentioned this complaint using the expression αράφε κικι "all sorts of swellings", against which there were three recommended recipes to use. The following remedy consists of liniments with an existing form of purslane and lard ointment:

BKU I 25

[etb]egabe nim onog 21-mezmo[y] [2e].21- κ [en]ne npip. \uparrow epooy ga[qlo]

For any swellings. Rub it (*sic*) with lard and purslane, apply to them. [It] will [heal]. 836

Cod.Med.Copt., p. 241, recipe no. 1 recommends a particular type of salt, wax, pine resin, white lead, litharge and olive oil; additionally, one can use vitriol when it is at hand:

Cod.Med.Copt., p. 241, recipe no. 1

етве фаве нім. x_1 мпермоу нфаумоуте єроц x_6 фауктос⁸³⁷ $s\bar{i}$, моухр ros пе†инс ros †імівіон ros ннр ммє ras ліваркуроу $ro\bar{b}$, вох пмоухар євох ми пре†инс ри пиєр, вно псеєпє єтфоуфоу, партоу єхфоу. Єффпе оунтак кахканенс⁸³⁸ миау, вно оукоуї p_1 рих, ноху имиау, хрф

_

⁸³⁶ Author's own translation.

⁸³⁷ Cf. ὀρυκτός "that which was dug; a kind of salt". Liddell/Scott/Jones 1996: 1257a.

⁸³⁸ It appears in Ch 34 τρακακανθής, τραγὰκανθα "tragacanth", Arabic الكثيرا.

For every swelling: Take the salt that calls ὀσυχτός (that which was dug), 10 obols; wax, ½ ounce, spruce resin ½ ounce, white lead ½ ounce, olive oil 30 ½? ounces, litharge 2 ounces, solve the wax and resin in oil, rub the remaining, the dry (ingredients) and pour them. If you have tragacanth. Crush a little with vinegar, sprinkle it with that; and apply. 839

BM 527 (1), an incomplete recipe, prescribes a liquid remedy comprising of raven's blood and vinegar, which should be taken early in the morning on an empty stomach. Chassinat papyrus (Ch 135; Ch 138)⁸⁴⁰ differs in this case, even though gaqe, including other forms of the word, repeatedly occurs. Chassinat Papyrus uses the term 60Y6 to refer to swelling, which has the same meaning gaqe:

Ch 135

(277) An wound that forms scab: Caper eight drachmas, alum four drachmas, Aristolochia four drachmas, castor four drachmas; (278) crush them; cook them with honey; give on the meet, it will dry up. Knead (the drug) with l'*étaphos*, and place it on swelling and scab.⁸⁴¹

5.17.2 Injuries

5.17.2.1 πληγή "wound": 842

пангн was a common term used for "wound". The expected successful result of wound treatment was usually expressed by the word φοογε "be dry" (Ch 18, Ch 37 and Ch 135 (see 5.17.1)) ог κεγκως "be

⁸³⁹ Author's own translation.

⁸⁴⁰ Ch 138 (see 5.6.22).

⁸⁴¹ English translation by me of the French translation by Chassinat 1921: 262-263.

⁸⁴² Cf. πληγή "blow, stroke, impact, injury, wound". Liddell/Scott/Jones 1996: 1417b.

smooth" (Ch 15, P.Mich. 593b, p. 167). Sometimes it simply said the remedy will θεραπεγε "cure	e" it (Ch
187):	

Ch 18

(40) [A plaster which is employed for painful wounds] fresh six ounces, six ounces incense........... (41)..... [cook them in fire until they thicken well; give [to painful sores], they will dry.⁸⁴³

Ch 37

(70) An old wound, to dry: Dry rue eight....., litharge four drachmas, (71) native sulfur two drachmas; crush them well with wine; use for old wounds, they will dry. 844

P.Mich. 593b, ro, ll. a11-b5

⁸⁴³ English translation by me of the French translation by Chassinat 1921: 104.

⁸⁴⁴ English translation by me of the French translation by Chassinat 1921: 139.

τοα f. [ομο]f εε΄ [κ]ηρογ f α ρεσαίνον f βωλ πμογλ \overline{g} εβολ ει εροαίνον ντής νετωρογωρογ εχωρογ εγθνην ντής μωτος ντέιξε.

For those who are slow to heal in the case of every wound: Calamine, 1 oz; copper scales, 1oz; calcined copper, 1oz; vitriol, 1½ oz; rock alum, 1½ oz. Together, sum, 6 oz. wax, 1 lb. Rhodinon ½ lb. Melt the wax, together with the rhodinon, and cast the dry (ingredients) upon them, (previously) pulverized, and apply it thus.⁸⁴⁵

Ch 187

(349) оүнпластрон есоүа $\overline{\text{ва}}$ ефасферапече йнеплүгн йтаүшск ий йршх йоүгор ий йршх (350) йнершие наночс калшс таф ечршх \mathfrak{r} и ноүрх \mathfrak{t} $\overline{\text{в}}$ нег \mathfrak{t} $\overline{\text{а}}$ пітнинс \mathfrak{t} $\overline{\text{в}}$ нр $\overline{\text{п}}$ (351) ечнот $\overline{\text{п}}$ \mathfrak{t} $\overline{\text{п}}$ й ноүр \mathfrak{t} \mathfrak{t} $\overline{\text{п}}$ пкш $\overline{\mathfrak{t}}$ хрш \mathfrak{t}

(349) A white plaster to treat protracted wounds, dog bites and human bites, it is very good: Burnt lead eight ½ ounces, wax two pound, oil one pound, pine resin two pound, wine sweet ten spoonful; melt on fire; apply.⁸⁴⁶

Ch 129: this recipe indicates that the remedy fills the wound:

(268) oyplhry vac ekoyww emoze ezpai 60y6 vanac

exως $\overline{\text{n}}$ μασο μορές chaλο $\overline{\text{o}}$

(268) An old wound you want to fill it up: Old dry safflower, cadmia; crush them together; (269) pour on the wound (?); cover it with a linen strip you bind (?); it will be healed.⁸⁴⁷

⁸⁴⁵ Transltion: Worrell 1935: 190-191.

⁸⁴⁶ English translation by me of the French translation by Chassinat 1921: 293.

⁸⁴⁷ English translation by me of the French translation by Chassinat 1921: 260.

The expression αγῆκα τοκτα "something has pierced him" indicates to a wound or some kind of injury. P.Mich. 593b ro, II. 1-10 also recommends a remedy in the form of plaster as the previous prescriptions:

P.Mich. 593b, ro, ll. 1-10

Η ΑΥΝΚΑ ΤΟΚΟΎ ΝΓΚΑΑΟ ΣΙΧΦΟΥ ΝΟΠΛΗΔΙΝ Η ΝΓΒΟΛΌ 6ΒΟΛ ΣΙΤΉ ΟΥΚΦΣΤ 64ΟΦΑΝ ΝΓ ΧΡΦ ΜΝΟΟ ΠΡΟΟ ΜΝΑ ΘΤΚΝΑΘΕΡΑΠΕΎΘ ΜΝΟΟΥ

Or something has pierced him: Place it upon bandages, or melt it by means of a dying fire, and apply it to the places which you are about to treat.⁸⁴⁸

5.17.2.2 πληγη κικ "Every wound":

A wound is sometimes reported on without adding further symptoms or complications, therefore, it is perhaps referring to minor wounds only, Ch 15 recommends plaster, and Ch 93 recommends collyrium for treating such wounds (5.6.21):

Ch 15

(36) ουνπράστρον εφάσβωκ εφώνε νιμ μ[....] λάμχετη νές \mathbf{F} ας σφ μος \mathbf{O}^{84} α \mathbf{F} ας (37) χάρβανε ς \mathbf{B} πάστου κάλως φάν[τευςην] είτα \mathbf{T} επληγή νιμ φάσκευκωνς

(36) A plaster which is used for any disease dry pitch, pork fat ½ ounce (37) galbanum two obols; cook them well until they thicken; apply to any wound, it will disappear.⁸⁵⁰

Wounds could also be "painful" (Ch 131; πάθος Ch 232) or be contaminated as in (Ch 216 and Ch 232):

⁸⁴⁹ cφιιος 0= ωτ κλιλ (pip). Chassinat 1921: 103.

⁸⁴⁸ Translation: Worrell 1935: 190.

⁸⁵⁰ English translation by me of the French translation by Chassinat 1921: 103.

Ch 131

(271) A plaster which are employed for painful wounds; it is of very powerful: Litharge twenty drachmas, wax (272) eight drachmas, white lead two (drachmes), fat of a pig, its *hubš* was recently removed; melt fat and wax; pour them in a mortar; and apply.⁸⁵³

Ch 232

(412) оүйпрастрон енаноүс егшү йсаш ий па Θ ос 854 нім йпхүгн ергісматос 855 ў $\bar{\Gamma}$ неү ў $\bar{\Gamma}$ (413) оүа Θ йүних ў $\bar{\Gamma}$ тахооу епкшут пастоу кахшс та $\bar{\gamma}$ үй оүвої ецкнк наноус йпхүгн нім етдоўч 856

(412) A good plaster for itching ulcers and for every kind of wound complication: slag three silver drachmas oil three drachmas (413) distilled vinegar three drachmas; cooking on the stove, cook them well and mix with fresh date-palm. Good for any infected wounds.⁸⁵⁷

For the "old" wounds, special recipes are prescribed (Ch 37, 129, and 189):

Ch 129

(268) oypahry vac ekoyww emoz \bar{c} ezpai 60y6 vanac

^{851 050,} λιλ (PIP).

⁸⁵² (xH, $2\overline{YB}$ 0).

⁸⁵³ English translation by me of the French translation by Chassinat 1921: 260.

⁸⁵⁴ πλθος, πάθος, πλθος νιμ νπλγγμ literally means "any disease of wound". Chassinat 1921: 321.

 $^{^{855}}$ єргісматос, $\hat{\epsilon}$ λ х ν σ μ α .

⁸⁵⁶ Cf. 🗴เซอิน "uncleanness, pollution". Crum 1939: 798a.

⁸⁵⁷ English translation by me of the French translation by Chassinat 1921: 320.

exως $n\Gamma$ μως η μορές chaλο \odot

(268) An old wound you want to fill it up: Old dry safflower, cadmia; crush them together; (269) pour on the wound (?); cover it with a linen strip you bind (?); it will be healed.⁸⁵⁸

Ch 189

(353) ουπάρρε ενέπλυγη νας ετρυέυλο νίσεκας κηννέ έξθω μουρξ ενίω ευπόσε χρώ έροου ώλυλο \odot

(353) A remedy for old wounds which cause them to heal, and smooth: Veal fat, wax, cooked honey; use for them; they will be healed. 859

Wounds that had not healed for a long time were expressed by the term " $\omega c \kappa$ ", which means "delay, be prolonged" Ch 187; P.Mich. 593b, ll. a11-b5 (see 5.17.2). These recipes mostly describe an ointment mainly made of mineral and plant substances, which was often mixed with oil, grease or wax.

5.17.2.3 ογπλύτη ατασρείλεψε "Wound that forms scab":

A wound that has become a ctaeqe⁸⁶⁰ "wound, sore, or scab", Ch 135 provided a remedy consisting of: caper, alum, Aristolochia, castor, and honey (see 5.17.1).

5.15.2.4 alchoy/ wlchoy "staunch, mop up blood":

αλανος, ωλανος, means "staunch, mop up blood". ⁸⁶¹ There are several hemostatic medical recipes against the bleeding resulting from wounds: (Ch 3, Ch 9, Ch 10, Ch 40, Ch 137, Ch 174 and P.Mich. 593b, P. 167). They usually contained sticky materials such as gum and resinous substances, and also pepper, white lead and litharge:

⁸⁵⁸ English translation by me of the French translation by Chassinat 1921: 260.

⁸⁵⁹ Author's own translation.

⁸⁶⁰ Cf. cιλεψε, cιρεψε "wound, sore, or scab". Crum 1939: 357a.

⁸⁶¹ Crum 1939: 348a.

- (8) oyalcnoq nanoy[c.....(9) h $\overline{p}\pi$ vac xpw vmoc ca[bol].
- (8) A good hemostatic: (9) old wine; apply it outside. 862

Ch9

- (22) [0үа] λ си[0Ч] енаноүс сантрахно обли 863 ып 864 комеос оү[а] епоүа хрш савох
- (22) A good hemostatic: Realgar, cress seed, pepper, gum, same amount of each; apply outside. 865

Ch 10

- (23) oyalcnoq cantarakhc f \overline{r} bib \overline{r} komeoc f \overline{b} xpw cabol
- (23) A hemostatic: Realgar six ounces, pepper three (ounces?), gum two ounces; apply outside.⁸⁶⁶

Ch 40

- (75) A hemostatic collyrium: Copper one drachma, opium one drachma, pepper two (drachmes), myrrh one drachma; doing in collyrium; apply outside. 867

⁸⁶² English translation by me of the French translation by Chassinat 1921: 56.

⁸⁶³ Δου Ο≡ς ΙΙΙ, Ο ΑΕΙΝ.

⁸⁶⁴ ыы, пеперім, пепре, пепрос. Chassinat 1921: 86.

⁸⁶⁵ English translation by me of the French translation by Chassinat 1921: 81.

⁸⁶⁶ English translation by me of the French translation by Chassinat 1921: 89.

⁸⁶⁷ English translation by me of the French translation by Chassinat 1921: 143.

(280) ουκοχ ναλύνου λιβάνου \$ $\bar{5}$ ημιθίου \$ $\bar{5}$ λιθάλκυρον \$ $\bar{5}$ ευφορβίου \$ $\bar{5}$ κομέου \$ $\bar{5}$ αλύ νές χρω

(280) A hemostatic collyrium: Incense two drachmas, white lead half drachma, litharge ½ drachma, spurge ½ drachma, gum ½ drachma; make them a collyrium; apply. ⁸⁶⁸

Ch 174

(334) оүхүрөн е ϕ ахсио ϕ а йсине е ϕ рах х \bar{g} вес ϕ е йнооү ий не ϕ ернү ϕ х \bar{g} и пиа е ϕ оүо сио ϕ

(334) A hemostatic powder: Burnt woman's hair, coal; crush them together; put on the place where blood flows.⁸⁷⁰

P.Mich. 593b, ro, ll. b 6-12

етве йоусоу ре єграї өно оувшне гі євіш $\overline{\text{иг}}$ каач гі $\overline{\text{ка}}$ пна йтсоуре

For every hemorrhage or every wound: Rock alum, pulverized and... Put it upon the wound and it will be removed at ounce. 871

5.15.2.6 αγλη "scars":

Healed wounds sometimes also needed medical treatment if disfiguring scars (αγλη, οὐλή) were to be removed. As the below recipe recommends, to remove any scar, anoint it with a mixture of pig fat and fuller's earth:

⁸⁶⁸ English translation by me of the French translation by Chassinat 1921: 265.

⁸⁶⁹ For Pbe, cf. τρίβω "to rub, wear out, waste". Liddell/Scott/Jones 1996: 1817a. Also, written as Pqe Ch 136, and τριπογ Ch 91.

⁸⁷⁰ English translation by me of the French translation by Chassinat 1921: 289.

⁸⁷¹ Translation: Worrell 1935: 191.

(274) ουαύλη ετρέςλο κηννέ πριρ ουαμ πρά \overline{z} τ ουαθού ης λάλως

(274) A scar to make it disappear (lit. leave): Pork fat, fuller's earth; melt them; anoint it.⁸⁷²

Sometimes the location of the scar becomes hairless, and in this case Ch 23 recommends using burnt goat horn and olive oil in order for the scar to look hairy:

Ch 23

(48) [оү] аүхн екоүшф тесршт тап йнөхк \equiv ечрш[х] гі нег не н $\bar{\Gamma}$ † ерооү фаүршт

(48) [A....] scar, if you desire it to grow with hair: Calcined goat horn and fine oil; give them, they will grow. 873

Scars sometimes left a dark coloured (кни "black") mark; therefore, Ch 154 prescribes a remedy of onion triturated with wine to treat these dark spots and give them skin colour again:

Ch 154

(308) оүйлүхн 874 еским етресрплули йпсшма йпршме йхшр йлрмо[....]н өнөч гі врк 875 хрш ерооу флуло

(308) A black scar, to make it take color (skin) of the body of man: Onion; crush it with wine; apply them; they will recover.⁸⁷⁶

⁸⁷² Author's own translation.

⁸⁷³ Author's own translation.

⁸⁷⁴ αγλη, οὐλή. Chassinat 1921: 262.

 $^{^{875}}$ врк, нрп. Chassinat 1921: 273.

⁸⁷⁶ English translation by me of the French translation by Chassinat 1921: 273.

5.15.2.5 pm₂⁸⁷⁷ "bite, pierce, stab":

Ch 187

(349) оүмпластрон есоүав \overline{a} ефасферапече йнеплүгн йтаүшск ий йршх йоүгор ий йршх (350) йнершие наночс калшс таф ечршх $\mathfrak p$ ночр \overline{p} \overline{p} иего \overline{p} \overline{a} пітнинс \overline{p} в нр \overline{n} (351) ечнот \overline{n} $\mathfrak p$ \overline{n} йоүаф (sic) валоч евол \overline{p} пкш \overline{p} хрш \overline{o}

(349) A white plaster to treat protracted wounds, dog bites and human bites (350), it is very good: Burnt lead eight ½ounces, wax two pound, oil one pound, pine resin two pound, wine sweet ten spoonsful; melt on fire; apply.⁸⁷⁸

Human bites appear to have been a sufficient problem in ancient Egypt; it deserved four paragraphs of the Ebers Papyrus. The section on human bites commences at paragraph 432 (parallel to Hearst 21):

Hearst 21

"Remedy for the bite of mankind. A measure of dough, which is in a jar and a leek. Pound and make into one mass, and bandage with it". 879

Pap. Ebers 433



⁸⁷⁷ Cf. λωκς, λωξ "bite, pierce, stab". Crum 1939: 139b.

⁸⁷⁸ English translation by me of the French translation by Chassinat 1921: 293.

⁸⁷⁹ Medizinische papyri [http://www.medizinische-papyri.de/PapyrusHearst/html/kolumne_2.html], (last accessed: 02.11.2020).

"Another, second cure: incense 1, yellow ocher 1, bile of the goat 1, make a uniform mass, and connect with it". 880

Pap. Ebers 434



"Another third remedy: *ntrt* plant 1, incense 1, onion 1, boil, make to a uniform ointment, connect with it". 881

Pap. Ebers 435

"Another [remedy]: You shall combine it with fresh meat on the first day. As for the following: You treat him with oil and honey, so that it is better. As for the following: You shall give him oil on wax so that it will be better for him immediately". 882

Nunn⁸⁸³ notes that the Grundriss (IV 2, 161) considers that *remetj* as a mistake for rear meaning "pig", although the writing is the same in both Ebers 432 and Hearst 21.

The following recipe mentions the scorpion. It presumably refers to the scorpion's sting; however, it is unfortunately incomplete:

O.Brit.Mus.Copt. I 49, Il. 12-14

⁸⁸⁰ Medizinische papyri [http://www.medizinische-papyri.de/PapyrusEbers/html/kolumne_lxiv.html], (last accessed: 02.11.2020).

⁸⁸¹ Medizinische papyri [http://www.medizinische-papyri.de/PapyrusEbers/html/kolumne_lxiv.html], (last accessed: 02.11.2020).

⁸⁸² Medizinische papyri [http://www.medizinische-papyri.de/PapyrusEbers/html/kolumne_lxiv.html], (last accessed: 02.11.2020).

⁸⁸³ Nunn 1997: 190.

[o]mioc on etbe toywze[......] псім йтоуwze пе йр[.......][..]nte epoq ce mace й[......]

Likewise again because of the scorpion [- - -] the scorpion's grass - - -]⁸⁸⁴

5.17.3 coype or yonte "Thorn":

coype and gonre both mean thorn, which could afflict in hands and feet as in Ch 214 (see 5.14.2), and also any part of the body.

P.Mich 593b, p. 167, ll. b 7-12

етве йоусоуре еграї оно оувшие гі євіш $\overline{\text{NT}}$ каач гі $\overline{\text{XM}}$ пна йтсоуре чиан $\overline{\text{TC}}$ еграї

For bringing up a thorn: Crush an earth-nut (?) with honey, and put it upon the place of the thorn. It will bring it up. ⁸⁸⁵

5.17.4 оүхүтшма "Gash, incision":

Ch 156

(310) оүхүтшна 886 етрецхфре евох моүн етпффе ө[нн] хамх $\overline{\mathbf{n}}$ йҳүрон нег йсім өнооү (311) ми неүернү тахү ех $\overline{\mathbf{n}}$ пма йпрфме етффие циахо г $\overline{\mathbf{n}}$ тбом йпхоеіс \bigcirc

(310) A cut that extends and remains separated:⁸⁸⁷ Sulfur, dried pich, horseradish oil; (311) grind them together; apply to the diseased part of the individual. It (the cut) will be healed by the power of the Lord.⁸⁸⁸

885 Translation: Worrell 1935: 191.

⁸⁸⁴ Author's own translation.

⁸⁸⁶ αγτωμα, Chassinat assumed that it is for αντωμα, ἐντομή. Chassinat 1921: 275. Cf. ἐντομή "incision, gash". Liddell/Scott/Jones 1996: 576b.

⁸⁸⁷ It refers to the opened wounds that is deep and cannot be healed.

⁸⁸⁸ English translation by me of the French translation by Chassinat 1921: 275, with slight modifications.

5.17.5 RHEUMATISM

греγна, ρεῦμα⁸⁸⁹ is a disease appeared in Coptic recipes meaning "flux, stream, rheumatism". ⁸⁹⁰ This meaning is different to what is today understood by the term rheumatism. греγна refers to a disease that caused a secretion, discharge, or expectoration. ⁸⁹¹ греγна in Ch 108 (see 3.4.1) clearly indicates a cold that has caused impairment of hearing, which is treated by placing a combination of euphorbium and olive oil in the nose. ⁸⁹² Ch 221 prescribes a treatment for rheumatism and all eye diseases:

Ch 221

(398) оүколлюн ечнп еграммн оүста†кон те есрауау ене[z]реүма мін †аөнсіс (399) тнрс пінвал катміас z смнринс z крокос z опіоу z споуа комеос z ів (400) акакіас z ів өнооу аау z хра z

(398) A collyrium estimated for (its) strength, it is an astringent useful for fluxions and any disease state (399) of the eyes: Cadmia, myrrh, saffron, opium, four drachmas of each, gum twelve drachmas, (400) acacia twelve drachmas; crush them; make them a collyrium; apply. 893

Rhinitis is mentioned in Ch 106 in which an astringent collyrium in powder form is described to help against all acute and chronic (Qεὕματα):

Ch 106

⁸⁸⁹ Cf. ἡεῦμα "that which flows, current, stream". Liddell/Scott/Jones 1996: 1567b.

⁸⁹⁰ Coptic Dictionary Online. [https://coptic-dictionary.org/entry.cgi?tla=C11190] (last accessed: 20.11.2020).

⁸⁹¹ Till 1951a: 42.

⁸⁹² Till 1951a: 42.

⁸⁹³ English translation by me of the French translation by Chassinat 1921: 325.

ФІВОШВФ \rangle ӨПӨП \rangle \rangl

(215) [A good astringent collyrium] that we usually call it the physician master. (216) it is used for all the old and recent fluxions: Safran six drachmas, cadmia twenty-four drachmas, copper four drachmas, (217) opium six drachmas, tragacanth a half drachma, myrrh six drachmas, acacia twenty-four drachmas, gum nine drachmas; (218) crush the copper, cadmia and opium good; put the rest in water (219) until they are softened; mix it all; make them a collyrium; apply. 894

5.17.6 THE THROB

Medical prescriptions do not contain any accurate information on the meaning of this disease κωλε (κωλες), the symptoms, or which part of the body is affected by this condition; however, some literary resources contain some references to this disease and its symptoms. ⁸⁹⁵ A Homily on the Virgin Mary mentioned ντεπεκαωμα τηρη σωλε "and thy hole body be agitated", as an indication of the state of a sinner immediately before his or her death. ⁸⁹⁶ Also, Mich. MSS inv. 158, fol. 39⁸⁹⁷ from the White Monastery states that the head of a sick patient knocking so he demands a pillow "κωλε εροη". ⁸⁹⁸ Moreover, this disease also appears in the magical text, P.Mich.inv. 597, vo, ⁸⁹⁹ (ε)τβε ογα εγκωλε νιμα "For one he is always knocking". There were various recipes prescribed to treat this malady such as BKU I 25, ll. 11-12, which uses types of grains with honey. In addition, O.Mon.Epiph. 575 offer a remedy of externally applicable means (see 5.9):

BKU I 25, Il. 11-12

[є]твє-пкш λ г. χ ї нак ноуко[үі...][..]євра. \uparrow нач гієві ω . ω

896 Till 1951a: 41: Worrell 1923: 273.

⁸⁹⁴ English translation by me of the French translation by Chassinat 1921: 225.

⁸⁹⁵ Till 1951a: 41.

⁸⁹⁷ Unpublished text. It is part of White Monastery manuscripts, has been mentioned in Husselman 1965: 79.

⁸⁹⁸ Crum 1939: 106b.

⁸⁹⁹ Unpublished text, it is part of the Coptic hoard codex; Worrell classified it in the Group (B). The image of the papyrus is available in, Advanced Papyrological Information System, UM [https://quod.lib.umich.edu/a/apis/x-3656/597V.TIF?chaperon], (last accessed: 12.05.2020).

For the throb, take a little seed. give him honey, he will recover. 900

P.Ryl.Copt. 106, ll. 1-14 also prescribes a remedy against knocking, which consists of bdellium, tragacanth, gum, radish or nut oil and various other substances:

P.Ryl.Copt. 106, ll. 1-14

Випраи епиоте і иепаігре гепкшлаг хі иак оурачтооу илілооге чфооуе каач епіст фістолу алоч епіст упісолу алоч епісолу алоч епісолу пропессоус // иесршкесоус // ефі терган катауоуа і бенооу фелфшлу таау етбалагт і инпиег есін // кан иег каіре // акит енооу діхшпсагте і таау еуалпаріне 902 і оуши иак ипатекоущи оулагу ироуге екали екоуши :- 903

In the name of God. The remedies for knocking: Take a quarter of dried bdellium, make it soften until it becomes quite soft, take the dregs from it, put it on the fire, put it on the sieve, throw away its rind (pl.) (?), 904 put what come down on the ground in the sieve, place it on the fire, give *Aiatepres* sugar, tragacanth, gum Arabic, acacia nilotica, *mropessus*, *mesrwkesous*, give five drachmas for each one. Grind them, strain it, and put them in the pot, with radish oil 905 at least nut oil. Let it thicken on the fire. Put them in a clay pot. Eat it in the evening before you eat anything. If you eat it, you will get well. 906

⁹⁰⁰ Author's own translation.

⁹⁰¹ ფთჯაp, Arabic *sokar* سكر.

^{.&}quot;means "vessel made from clay". بَرُنِيَةُ عبيم بِهِ العبير اللهِ عبير المجاهدية بالمجاهدية عبير المجاهدية والمجاهدية والمجاهدية والمجاهدية والمجاهدية والمجاهدية والمجاهدية والمجاهدية والمجاهدية والمجاهدية المجاهدية والمجاهدية المجاهدية المجاهدة المجاهدية المجاهدية المجاهدة المجاهدية المجاهدة المجاهدية المجاهدة المجاهدة المجاهدة المجاهدة المجاهدية المجاهدة المجاهدة

^{903 &}quot;and eaten fasting in the evening". Crum 1909: 58. It means that the patient must fast before taking the medicine.

⁹⁰⁴ Crum 1939: 100b.

⁹⁰⁵ Or "sesam" according to Crum 1909: 58.

⁹⁰⁶ Author's own translation.

P.Rvl.Copt. 106, ll. 15-26

ембоол мои фуксі те быт ешфомні ембоол ейсти мисте ихи фунтексоод % ті ихи имолубы ембите е

The knocking: Take white [pepper (?)], 5 drams, sieve and measured. Give it to you [in a jar (?)] Until you drink it. Take a quarter of pure milk/ *Akhales* Milk- Take half of it, put it on the fire until it gets hot, and then put it away (?). The first ingredient is to be divided (?) into . . .3 parts and one of them added to the milk. Add one of these parts in half, he should drink it with the plate and drink the [...] unheated milk on it [- - -]. Put something (of it) on (?) your heart, like an egg. Take it ... spit it with your lips for the three days. Drink it and spit it out, and take your *hike* daily on the three days, then you will certainly (?) spew on the three days. ⁹⁰⁸

SBKopt I 003 recommends white pepper, gum, nut, pistachio, rose apple and honey as a treatment against knocking:

SBKopt I 003, ll. 8-19

одинуя иодит<u>ь</u> уд["] иевію ""[\mathbf{h} єтве шкώуя \mathbf{h} * [""] одено фом ** [""] од[ио] икундхфи ещър [""] \mathbf{h} єтве шкфуя \mathbf{h} * [""] одено фом ** [""] икундхфи ещър [""] \mathbf{h} єтве шкфуя \mathbf{h} * [""] одено фом ** [""] икундхфи ещър [""]

^{907 &}quot;λεπις, so scale-like plate of metal". Crum 1905: 45b.

⁹⁰⁸ Author's own translation.

Against the knocking [- - -] seven of Sesame (?)[- - -] one tablet on [- - -] wh[ite] pepper [- - -] seven of smell [- - -] of gum, 3 (?) [- - -] one [big] nuts [- - -] of pistachio and [- - -] plant pods [- - -] of must ... [- - -] a rose apple [---] (?) – of honey [- - -⁹⁰⁹

5.17.7 BLOODY SPUTUM

Bloody sputum is mentioned as a disease in some recipes but its causes are not mentioned. Nevertheless, the common phenomenon among the three recipes is that blood flows out of the mouth, which is often evidence of a dysfunction of the upper respiratory tract or food tract. The recipes recommend oral remedies to cure blood sputum. Three recipes are prescribed for treating the bleeding. In order to express the symptoms of the diseases, each recipe uses a different verb to express this phenomenon: NOYX, egpai (Ch 233) and cit egpai (Ch 237) literally means to "throw up", and ταγο εβολ (BKU 16) means to "eject":

Ch 233

(414) ογα είνους ανός έραι εν ρως χιείρε νάμοντε $rac{1}{8}$ κούκε $rac{1}{8}$ δ καίρε $rac{1}{8}$ δ καίρε $rac{1}{8}$ δ καίρε $rac{1}{8}$ δ εριντοούς $rac{1}{8}$ δ εριντοούς $rac{1}{8}$ δ ενός εν $rac{1}{8}$ θνόους ούσωμα εί είνω νάμων $rac{1}{8}$ εί είνω νάμων $rac{1}{8}$ είνους είνου

(414) Someone who throw up blood by his mouth: Acacia nilotica pod two drachmas, pomegranate rind one drachma, hazelnut (415) one drachma, chicory two drachmas, wild rue one drachma, safflower flower six drachmas; crush them, and mix with honey. He eats according to his strength.⁹¹⁴

⁹⁰⁹ Author's own translation.

⁹¹⁰ Till 1951a: 22.

⁹¹¹ Till 1951a: 22.

⁹¹² غية зерның, көүке прерның Arabic *qeshr al-roman* قشر الرمان, scala n° 43, fol. 56, vo, l. 15; n° 44, fol. 81, vo, 2° col. l. 16. Chassinat 1921: 321.

⁹¹³ κωιρε πφονητιον corresponds to the Greek Κάρυον Ποντικόν Corylus avellana L. and Arabic بندق. Chssiant 1921: 321.

⁹¹⁴ English translation by me of the French translation by Chassinat 1921: 321.

Ch 237

(420) oya eycit choq ezpai \overline{z} n pwq apxi $\overline{\theta}$ \overline{p} \overline{p} ⁹¹⁵ taay ephpti wantyawk to \overline{q} ⁹¹⁶ zi eyiw \uparrow nay teyoywh

(420) Someone who coughs up (throw up) blood by his mouth: Tragacanth; put it into the wine until it softens; mix it with honey; and give him his food.⁹¹⁷

BKU I 28

etbe oya eqtayo choq ebo
λ $\varrho\overline{\mathbf{n}}$ йрирч $\underline{\mathbf{x}}$ 1 ncooy
ջ $\mathbf{n}\overline{\mathbf{r}}$ и)
λκα) λ
с $\mathbf{n}\overline{\mathbf{n}}$ noyï nciqe

For someone who spits blood from his mouth: Take (an) egg and mix it with a little tar resin. He should drink it. He will be healed. 918

5.18 INTERNAL DISEASES

The recipes prescribed to treat internal diseases deal with the diagnosis and treatment of conditions related to the internal organs, of which the causes were often unclear. The Coptic medical texts preserved some recipes for treating various kinds of internal diseases. Other recipes provide general remedies for the internal diseases in general going ecaroun and singuished by the conduction of the internal diseases.

5.18.1 гион "Fever, be hot":

A fever can be a temporary increment in body temperature, often due to sickness. Having a fever may be a sign that something out of the ordinary is going on inside the human body. But in some cases of febrile diseases, it appears it was better to turn to a magician than to a physician. This is the reason why there are very few remedies against fever in Coptic medical prescriptions. ⁹¹⁹

⁹¹⁵ אַ apxופּוּף is an Arabic loanword *Alkatira* الكثيراء.

⁹¹⁶ τος, τας, τως "miscere". Chassinat 1921: 323.

⁹¹⁷ English translation by me of the French translation by Chassinat 1921: 323, with slight modifications.

⁹¹⁸ Author's own translation.

⁹¹⁹ Till 1951a: 40.

Various Coptic expressions refer to the a fever, the usual one being гмом, which as a nominalized verb means to "be hot". 920 In P.Sarga 21 the word гмом is accompanied by two epithets фавс and ноерком. фавс 921 meaning "to be swollen" makes no sense here. The word фовс (qualitative form of фівс) would be possible as it means "bad, evil". In addition, осріком perhaps relates to 9έρος "summer" so 9έρειον "summery". If both assumptions are correct, the entire expression would mean "the evil, summer fever". 922 гмом із содпаte with ахгомиме (fem.), and reflects the Arabic الحقى in P. Ryl. Copt. 106. The recipe mentions "summer and winter" (perhaps a summer fever) (see 3.1.1):

P.Sarga 21, ll. 5-7

п]ермом стараве ноерікон ..] аіос рінріі рінср мє †і ехав the] fever which (5) the medicaments and wine and olive oil (6). Apply

5.18.2 αcικ "periodical fever":924

асік is a term referring to a certain kind of fever, "periodical fever": to be precise: 925

(7) them to it....⁹²³

Ch 118

(250) ουνπράστλον νπασική (250) ουνπράστλον

(250) A plaster for the periodic fever or gout: Litharge hundred obols, salt hundred obols, pine resin sixteen obols, bitumen twenty obols, oil; apply. 927

⁹²⁰ Crum 1939: 677a

⁹²¹ Cf. αραφε "swell". Crum 1939: 610a.

⁹²² Till 1951a: 40.

⁹²³ Translation: Crum et al. 1922: 52.

⁹²⁴ Cf. λcικ "a periodic malady, fever, or ague". Crum 1939: 18a.

⁹²⁵ It is also treated magically (see 6.6.7)

⁹²⁶ Crum mentioned this example, and it may be a variant spelling of αcικ. Crum 1939: 18a.

⁹²⁷ My own translation.

In this recipe, ποτακ \bar{p} is used with the subsequent strange sign $\int f^{928}$ one could consider it to be the reformation of ποδάγοα "feet gout". ⁹²⁹ This equilibrium, however, cannot be considered certain in regards to the fever. This word appears alongside αcικ, which seems to be a term for "fever" or a certain type of condition associated with a fever. ⁹³⁰ A plaster of bleach, salt, spruce, asphalt, and oil is prescribed; this suggests a rheumatic disease.

Another sort of fever called πρωχ mentioned in P.Ryl. Copt. 104 sect.3, was treated by using the magical plant πωφοφ εγληκ "moistened rue":

P.Ryl. Copt. 104 sect.3

 $\frac{1}{1}$ прави вамоч $\frac{1}{2}$ прави вамоч $\frac{1}{2}$ прави во $\frac{1}{2}$ прави $\frac{1}{2}$ пра

The fever. Take the cummin; pound it with moistened rue; soak it with for three days. He will cease. ⁹³¹

5.18.3 xoyq "burning, ardour": 932

xογq literary means "burning, ardour", ⁹³³ and may refer to the overheating as a result of inflammation and the like. The medical recipe Ch 138 listed xογq together with other diseases such as trachoma, nails, vesicular rash, and swellings, and recommended an ointment consists of: Gum ammoniac, alum shale, gum, to be mixed with water (see 5.6.22).

5.18.4 General "Swine disease":

Φενεφαγ means literally "swine disease" and probably refers to the scrofula: 934

⁹²⁸ Chassinat, couldn't translate it and he said that: "The meaning of these two words escape me, and that of the sign that accompanies them." Chassinat 1921: 240.

⁹²⁹ Till 1951a: 29.

⁹³⁰ Till 1951a: 41.

⁹³¹ Translation adapted from Crum 1909: 54.

⁹³² Crum 1939: 796a.

⁹³³ Crum 1939: 796a.

⁹³⁴ Till 1951a: 40.

(401) ogpazpe etbe padenaday kikic \imath choip \imath choy pepoc cpinod thoog \dagger epooy üzypon

(401) A remedy for *ŠénéŠau*: Castor, tragacanth, royal salt, chicory; crush them; apply in powder.⁹³⁵

5.18.5 องุล ที่สลุง องุลกิจ ที่คุลคุณลาล "An emetic remedy":

If someone is given a mug of poison (φαρμαχεία), it is usually an emetic, such as beer as it was easily accessible:

Ch 229

(408) оүа \bar{n} таү† оүапот \bar{n} фармагіа нач 500^{936} \bar{n} хах \bar{n} вниє тсоч 21 ренке чнакавол \bar{n} прік

(408) Someone who was given a cup of poison: Let him drink dung to swallow with beer; he shall vomit the magic (the poison). 937

5.18.6 General internal diseases

There are two recipes that mention internal diseases in general without further clarification. ⁹³⁸ The first is Ch 234, which states ογα εφαρώνε επεφααρογν ενί συναμώνε νω "someone who suffers from any illness in his inner parts":

Ch 234

⁹³⁵ English translation by me of the French translation by Chassinat 1921: 316.

⁹³⁶6ω, ελc. Chassinat 1921: 319.

⁹³⁷ English translation by me of the French translation by Chassinat 1921: 319.

⁹³⁸ Till 1951a: 41.

(416) оүа ечфине епечсагоүн 939 $\overline{\text{гn}}$ бинфине нім смнрине \$ $\bar{\text{а}}$ аравікон \$ $\bar{\text{е}}$ какіас (sic) \$ $\bar{\text{a}}$ (417) коү $\bar{\text{ct}}$ \$ $\bar{\text{a}}$ нө $_{A\!\!D}$ $_{X\!\!A\!\!D}$ йаг $_{P^-}$ \$ $\bar{\text{г}}$ өнооү оүофноү ечіш \dagger нач гі мооү ечгім \odot

(416) Someone who suffers from any ailment in his inner parts (i.e. internal diseases): Myrrh one drachma, gum Arabic five drachmas, acacia four drachmas, (417) costus one drachma, wild rue four drachmas; crush them; knead them with honey; apply to him (the patient) with warm water. ⁹⁴⁰

The second recipe is P. Ryl. Copt. 106, ll. 30-64, which contains many complicated drugs used to clean the mouth of the heart, i.e. stomach. Additionally, it recommends a remedy called "very good garlic drug", which must be taken in the morning on an empty stomach over a period of some time.

5.19 GENERAL RECIPES

Many cases do not mention the precise purpose of the prescription, the diseases or the complaints for which the prescriptions should be used. These prescriptions have been used to treat common diseases, and a few of them were effective in treating all diseases, as the physician indicates in the prescription. The medical recipe Ch 15 recommends a plaster for treating any wounds, and also for any disease as mentioned below:

Ch 15

(36) Oyripactron egacbok egone nim $\text{m}[\dots]$ lamket $\text{n}_{\tilde{x}'}$ a, chimoso f a, (37) xapbane, b hactoy kaloc gan[teyczn]zicta + enlhith nim gackezkozc

⁹³⁹ Cf. 20γn "inward parts". Crum 1939: 686b.

⁹⁴⁰ English translation by me of the French translation by Chassinat 1921: 322, with slight modifications.

⁹⁴¹ chmoso=wt กิมม (pip). Chassinat 1921: 103.

(36) A plaster which is used for any disease dry pitch, pork fat ½ ounce (37) galbanum two obols; cook them well unt[il they thi]cken; apply to any wound, it will disappear.⁹⁴²

Recipe (Ch 41) offers a powder for treating every type of eye diseases. It is considered to be a significant and extraordinary powder that can treat all widespread and varied eye diseases. There are many remedies used to treat eye diseases, but this prescription provides a remedy with only one form of treatment "powder" and describes it as "good" enanoyq. This indicates that it was used to treat various eye diseases, and this is evidence of the efficacy of this treatment:

Ch 41

(76) ουστρον ενανούς εφωνέ νιμ ετζν νβαλ κρογος $\sqrt[3]{5}$ μαθρέματινι $\sqrt[3]{6}$ χωσέλ αυλάν 943 (77) $\sqrt[3]{6}$ ακακία $\sqrt[3]{6}$ ατάρτι $\sqrt[3]{6}$ ακακία $\sqrt[3]{6}$ ατάρτι $\sqrt[3]{6}$ ακακία $\sqrt[3]{6}$ ατάρτι \sqrt

(76) A good powder for all eye diseases: saffron ½ drachma *maḥrématini* a drachma ½, kohl Khulan (Lycium) (77) one drachma, acacia one drachma, myrrh one drachma, aloes one drachma, opium one drachma, dried bull gall ½ drachma; make them powder; (and) use for all diseases. ⁹⁴⁴

Another recipe Ch 93 (5.6.21) prescribes a significant remedy for treating various diseases such as eye and body swelling, painful limbs, gout, general wounds, and knee pain caused by joint stiffness due to bone fusion:

In cases of pain, most recipes refer directly to the organ un question. On the other hand, some recipes are prescribed for pain in general, such as Ch 115 which prescribes a plaster against any pain, consisting of spruce resin, green pepper, veal mark, pig fat and vinegar, to be used to treat any pain. Also, a far simpler remedy is offered in Ch 213, for someone to put the dung of the sparrow in a piece of wool and place it on the painful body; moreover, P.Louvre AF 12530 recommends a hot drinking remedy for every type of sickness:

⁹⁴² English translation by me of the French translation by Chassinat 1921: 103.

⁹⁴³ χωρελ αγλαν, בע (וו is clear that χωρελ is an Arabic name באר א א א א refers to the Arabic ביע (ווי א αfter replacement of ביל ביע אין א בול ביע (ווי ביא מאר). It is clear that χωρελ is an Arabic אבר א ביע אין א מאר מון מון א מאר מון ביע מון א ביע אין א ביע אין א מאר א מון א מאר א מון א מאר א מון א מאר א מאר א ביע אין א מאר א א מאר א מאר א א מאר א א מאר א א מאר א

⁹⁴⁴ My English translation adapted from the French translation by Chassinat 1921: 147.

Ch 115

(244) อүйпрастрон етве †ккас нім пітнинс \hbar ā $x\bar{x}$ \hbar ā алкткас ймасе \hbar пвішіііі (245) і йоло \hbar в пеурффе йгних пастоу \hbar оубала \hbar йврре хрф ерооу фауло

(244) A plaster for any pain: Pine resin one pound, verdigris one drachma, veal marrow sixteen drachmas, pork fat (245) two drachmas, and enough vinegar; cook in a new pot; apply to them; they will be healed. 945

Ch 213

(384) прас йпесөроүөөс 946 екөнөү калшс йспаөі \dagger кон 947 йг сеп өүкрме йсөр \dagger т йг кас ехй ма (385) нім ечтікас дй пршме чнало дй өүбепн ©

(384) The dung of the sparrow, crush it well using a double curvature spatula, impregnated in-wool pad and place it on any painful part (385) in the (body of) man; it will stop quickly.⁹⁴⁸

P.Louvre AF 12530, recipe no. 12, ll. 58-65

тпарре етгій (space?) тсо енфине тнроу ахмир ецтари) опіон піперешс тарворвор сахніє моу истактн куне 'коущт соупоур' є́шс оуа оущі йоушт пасті гієвіш

The hot remedy to drink with every illness: Red myrrh, opium juice, pepper, long pepper, cassia cinnamon, water of liquid myrrh, fat, (edge gloss: food, spikenard): a part of each, boil it on honey. 949

⁹⁴⁵ English translation by me of the French translation by Chassinat 1921: 238.

⁹⁴⁶ cθρογθος, cετρογθος العصفور, scala n° 44, fol. 56, ro, 2° col., l. 17.

⁹⁴⁷ cπαθι†κον is formed Greek words σπάθη "spatula" and διγόυατος which has a double curvature. Chassinat 1921: 305.

⁹⁴⁸ English translation by me of the French translation by Chassinat 1921: 305.

⁹⁴⁹ English translation by me of the German translation by Richter 2014: 177.

Till⁹⁵⁰ argues that diseases and ailments of young children are mentioned several times, and it is continuously, not simple to decide what a child is missing, what is the cause of the discomfort, or what makes the child cry. In this case, it is recommended to smear the child skull with ox marrow or calf brains as in the following recipe:

P.Mich. MS 136, p. 13, ll. 207-210

ефиле оүкої йкеке пе ечріме дале печ антили йаткас ймасе н ангкефалос ймасе//

If it is a little child weeps: Smear his skull with bull/ or calf marrow or bull/ or calf brains.⁹⁵¹

Ch 145

(294) An astringent collyrium for small children: Burnt copper two drachmas, white lead two drachmas, (295) opium two drachmas, gum two drachmas; use with wine and milk. 952

The following two recipes are to treat rheumatism and are fairly similar as they both contain almost the same ingredients to make an astringent collyrium:

Ch 106

(215) [ουκολλιον νέστατικον παν]καλ[10]ν πετεφαύνου τε έρου χε πόλε νέγλατ[ρος] (216) φασβωκ ενέξρευμα νιμ νάς μν νέβρρε κρόκος $^{\circ}$ καλμίας $^{\circ}$ καλ $^{\circ}$ καλ κομέος $^{\circ}$ αιών νέστα νίμ νέστα νέστατα $^{\circ}$ αιών νέστα νέστατα $^{\circ}$ αιών νέστα $^{\circ}$ αιών νέστα

йķ

951 Translation: Worrell 1935: 36.

⁹⁵⁰ Till 1951a: 43.

⁹⁵² English translation by me of the French translation by Chassinat 1921: 269.

 $\overline{\text{mn}}$ попіон калфс \dagger пкесепе єпнооу (219) фантоурфк тагоу $\overline{\text{mn}}$ неуєрну алу $\overline{\text{nt}}$ хрф

(215) [A good astringent collyrium] that is called the master physician. (216) it is used for all the old and recent fluxions: Safran six drachmas, cadmia twenty-four drachmas, copper four drachmas, (217) opium six drachmas, tragacanth a half drachma, myrrh six drachmas, acacia twenty-four drachmas, gum nine drachmas; (218) crush the copper, cadmia and opium good; put the rest in water (219) until they are softened; mix them; make them a collyrium; apply. 953

Ch 221

(398) оүколлюн ечнп егршмин оүста‡кон те есрфаү ене[g]реүма $\overline{\text{min}}$ ‡аөнсіс (399) тнрс $\overline{\text{nib}}$ ал катиіас f синринс f крокос f опіоү f $\overline{\text{a}}$ епоуа комеос f $\overline{\text{ib}}$ (400) аккіас f $\overline{\text{ib}}$ өнооу аау $\overline{\text{nib}}$ хрш f

(398) A collyrium estimated for (its) strength: it is an astringent useful for fluxions and any disease state (399) of the eyes: Cadmia, myrrh, saffron, opium, four drachmas of each, gum twelve drachmas, (400) acacia twelve drachmas; crush them; make them a collyrium; apply. 954

P.Louvre AF 12530, recipe no. 16, ll. 79-86, is used to treat πληρ "air" and every type of illness (see 5.6.26).

⁹⁵³ English translation by me of the French translation by Chassinat 1921: 225.

⁹⁵⁴ English translation by me of the French translation by Chassinat 1921: 315.

5.20 SURGICAL PROCEDURES

Contrary to ancient Egyptian medicine, surgical instruments and operations are described in a very limited extent. The surgical procedures were scantily mentioned throughout Coptic medical texts, the sole mention of surgical operation is in Chassinat papyrus, which mentioned two recipes of surgical procedures for removing a molar tooth by placing a herb has extraction and calming properties called hellebore and gall Ch 151 "A tooth to be removed without pincers or iron: hellebore of good quality and gall; apply on the part of the cheek where is the molar, that you want to extract, you will be amazed!", this recipe pertained hellebore еревороу from the Greek ἑλλέβορος"955 γανθος خربق in the scala Bohairic.956 The Greek and Arab physicians distinguished two types of the hellebore the white and black. The calming effect of hellebore on the teeth is reported by both Greek and Arab medicine, Pliny (XXV, 21, 5) mentions the narcotic properties of the two species of hellebore. Also, Oribase recommends the application of a mouthwash composed of black hllébore and vinegar against dental pain. Oribase indicates some other preparations that were used to extract teeth painlessly. Ibn Sina mentioned that it is used as strong purgatives and emetics, and when it is cooked with vinegar it is useful for painful ears and tooth, obsessive and epilepsy. 957 This plant has a multiple utilization, in the Hippocratic writings drinking the hellebore reduce spleen growth, 958 according to Hippocrates, it is used in treating the fluid of the brain, pain in the muscle of the skull, and pain in the eye cavity, 959 its properties as extraction and luxation, 960 the black hellebore used for removing the nose tumor. 961 According to Dioscorides IV, it used for madness, for menstruation and abortion. Also, it is recommended for removing the hard fistula in two or

⁹⁵⁵ Cf. ἑλλέβορος "hellebore". Liddell/Scott/Jones 1996: 535b

⁹⁵⁶ Kircher 1643: 184.

⁹⁵⁷ Ibn Al-Baitar, II, 523

⁹⁵⁸ Hippocrates, Vol. V, Affection 20, 35.

⁹⁵⁹ Hippocrates, Vol. V, Diseases II 15, 218.

⁹⁶⁰ Ibn Al-Baitar,II, 322

⁹⁶¹ Hippocrates, Vol. V, Diseases II 33, 249.

three days according to Gallienus II. ⁹⁶² The roots of the white hellebore mixed with honey or to be mixed with lentils doctrine ⁹⁶³ to treat the diseased lung, ⁹⁶⁴ it benefits in treating the swelling of diaphragm. ⁹⁶⁵

The second recipe of extracting tooth without instrument is Ch 184: "Tooth or molar to remove without the iron: decoction of the plant called malabathrum, the water of Nilotica acacia leaves, part of cantharide, mouse citrus milk, wild rue; rub them well; put on the root of the molar or tooth; leave a moment; then take the tooth between the finger and the thumb; it will leave quickly." Here the recipe adopted a plant named אדאה, פאדאה "plant, herb, weed", 966 Greek: ζιζάνια, Arabic: נפוט, Lolium temulentum L. From the ancient Egyptian \mathbb{Z} and \mathbb{Z} It has been mentioned in the Scala Bohairic two times as πικογκλος and νιεντης الزوان. 968 It was growing with wheat, and it has extraction power, it mixed with radish peels and salt in from of poultice for removing the malignant sores, it is very powerful, and can open the tumors, according to Dioscorides II. If it is baked it becomes soporific and hypnotic drug, as stated in Ibn Sina: 99. It is used as sedative and hypnotic medicament before the surgical operations. 969 This plant mentioned many times in literature texts Mattew 13:25, 13:26, 13:30, 13:36, 13:38, 13:40; Jeremiah 27:24. Another medical recipe P.Ryl.Copt. 108 Ro "a recipe for tearing eyes" stated that it is called cardamon and in the Egyptian tongue named Shife: оуентню жекартамон минтрискние жепфиче соуфни счрнт бийуйдоод и[ө]с йольт ибебичи съсислете до полкол иос ибисяч екапо педое едение мпапрерман "a herb named cardamom, in the Egyptian tongue shife which is a tree that grows in mountain regions like a pomegranate tree, its leaves being somewhat long like its wood is like that of the pomegranate". 970 In addition, this recipe used the Nilotica acacia, which considered a cooling and its leaves used as anitmutagenic, anti-bacterial, and anti-inflammatory. 971 It seems that the Coptic doctors preferred this wonderful technique more than the painful operations with the pliers since there is no evidence of any teeth operative treatment in any Mummies of the Pharaonic period.

Monastic medicine, as verified in Shenoute's were pointed out that minor surgery was regularly performed, predominantly by virtue of the monks and doctors such as thorns removing, wounds, and bleedings cauterized.

Furthermore, complicated surgical procedures had been achieved in the monastics community and the surgery procedures which had been done in some of the monastic texts indicate that monasteries presented

⁹⁶² Ibn Al-Baitar, II, 322

⁹⁶³ Hippocrates, Vol. V, Diseases II 51, 287.

⁹⁶⁴ Hippocrates, Vol. V, Diseases II 48, 277–279.

⁹⁶⁵ Hippocrates, Vol. V, Diseases II 72, 327.

⁹⁶⁶ Crum 1939: 233a.

⁹⁶⁷ Westendorf 1977: 129.

⁹⁶⁸ Kircher 1643: 197.

⁹⁶⁹ Zenl& Abbas 2016: 274.

⁹⁷⁰ (see section 5.6.2.3)

⁹⁷¹ Ali et al. 2012: 1493.

the best type of health care in Late Antiquity. Crislip⁹⁷² mentioned that "Palladius tells of a monastic named Stephen, a particularly holy man, who had contracted a gruesome case of cancer "All over his testicles and penis an ulcer, called cancer, had appeared". The degree of cancer growth called for surgical careful cures (kheirourgiai). "Evagrius of Pontus, according to his friend Palladius, reported: We found him under the care of a physician. He was working with his hands and weaving palm leaves and he conversed with us while his body was undergoing an operation. He acted as though it were someone else who was undergoing the knife. While his members were being cut away like locks of hair, he showed no sign whatsoever of pain, thanks to the superiority of his spiritual preparation."

There are additional expressions refer to the surgical procedures in literary sources as "Circumcision, the act, or custom of circumcision", Jon. 7:22, 23; Acts 7:8; Lk. 1,59; "the state of being circumcised", Rom. 2:25, 26, 27; 4:10. "The circumcision, those who are circumcised", Rom. 3:30; 4:9 met. "Spiritual circumcision of the heart and affection", Rom. 2:29; Col. 2:11. As well as Persons spiritually circumcised. Phil. 3:3:

John 7:22

єтвепаї амфусис \dagger инт \overline{n} \overline{n} пс \overline{b} ве. Оух оті же оуєвох $2\overline{n}$ мфусис пе ахха оуєвох $2\overline{n}$ оті же оуєвох $2\overline{n}$ мфусис пе ахха оуєвох $2\overline{n}$ по \overline{b} ве роме $2\overline{n}$ пс \overline{b} ве роме $2\overline{n}$ не $2\overline{n}$ не $2\overline{n}$ пс \overline{b} пс \overline{b} не $2\overline{n}$ не $2\overline{n}$

"Moses gave you circumcision (not that it is from Moses, but from the fathers), and you circumcise a man on the Sabbath" ⁹⁷³

John 7:23

ефжефарершие хісвве $2\overline{\text{M}}$ псавватой же $\overline{\text{N}}$ иечв ϕ х евох $\overline{\text{N}}$ опионос $\overline{\text{M}}$ н ϕ үсис. агр ϕ т тет $\overline{\text{N}}$ иос ероетже асттоужеоур ϕ не тир $\overline{\text{M}}$ галисавватой.

"If on the Sabbath a man receives circumcision, so that the law of Moses may not be broken are you angry with me because on the Sabbath I made a man's whole body well?". 974

Lukas 1:59

АУЄІ ЄҮНАСВВЕПШНРЕ ШНМ

⁹⁷³ STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Gen.1|reference=John.7.22&options=VHNUG], (last accessed: 13.10.2019).

⁹⁷² Crislip 2005a: 36.

⁹⁷⁴ STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Gen.1|reference=John.7.22&options=VHNUG], (last accessed: 13.10.2019).

"They came to circumcise the child". 975

Matthew 19:12

наі нтауаау исюур имін имооу

"Those who make themselves eunuchs". 976

Acts 7:8

аүш аү \dagger нац поудіаннки псве. Таї те не птацхпеїсаак. Ацсвент \dagger гипнегорноун прооу. Ісак де піакшв. Іакшв де ппинтсионус ппатріархис.

"And he gave him the covenant of circumcision. And so Abraham became the father of Isaac, and circumcised him on the eighth day, and Isaac became the father of Jacob, and Jacob of the twelve patriarchs."

Rom. 2:25

пс $\overline{\text{вв}}$ ве гар $\overline{\text{р}}$ ночре екфан $\overline{\text{p}}$ пномос. еффпе де $\overline{\text{н}}$ т $\overline{\text{к}}$ оупараватнс $\overline{\text{н}}$ тепномос апекс $\overline{\text{в}}$ ве ффпе $\overline{\text{н}}$ н $\overline{\text{н}}$ тат $\overline{\text{с}}$ ве.

"For circumcision indeed is of value if you obey the law, but if you break the law, your circumcision becomes uncircumcision." ⁹⁷⁸

Romans 2:26

 ϵ ООППЕ ϵ ϵ ϵ РООППЕ ϵ РООП

"So, if a man who is keeps the precepts of the law, will not his uncircumcision be regarded as circumcision?" 979

Romans 2:27

⁹⁷⁵ STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Gen.1|reference=John.7.22&options=VHNUG], (last accessed: 13.10.2019).

976 Kolta 1984: 164.

977 Bible Hub. [https://biblehub.com/acts/7-8.htm], ((last accessed: 05.04.2020)

978 STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Rom.2.25&options=HVNUG], (last accessed: 13.10.2019).

979 STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Rom.4.10|reference=Rom.2.26&options=HVNUG], (last accessed: 13.10.2019).

 $\overline{\text{N}}$ $\overline{\text$

"Then he who is physically uncircumcised but keeps the law will condemn you who have the written code and circumcision but break the law." 980

Romans 4:10

 \overline{N} ТА \overline{N} ТОПС \overline{N} С \overline{N} С

"How then was it counted to him? Was it before or after he had been circumcised? It was not after, but before he was circumcised." 981

Romans 3:30

ΕΤΒΕΣΕΟΥΑ ΠΕ ΠΝΟΥΤΕ ΠΑΪ ΕΤΝΑΤΜΑΪΕΠΟΒΒΕ ΕΒΟΛ ?ΝΤΠΙΟΤΙС. ΑΥΦΟ ΤΜΝΤΑΓΟΒΒΕ ΕΒΟΛ ?ΙΤΝΤΠΙΟΤΙС.

"Since God is one—who will justify the circumcised by faith and the uncircumcised through faith." 982

Romans 4:9

пеїнакарісноє оє єчфооп єх $\overline{\text{м}}$ пс $\overline{\text{в}}$ вє. х $\overline{\text{м}}$ ечфооп єх $\overline{\text{м}}$ ткен $\overline{\text{м}}$ татс $\overline{\text{в}}$ вє. т $\overline{\text{м}}$ х ϕ гар $\overline{\text{м}}$ нос хе аүєптпістіс $\overline{\text{м}}$ аврадам єроч єудікаюсунн.

"Is this blessing then only for the circumcised, or also for the uncircumcised? For we say that faith was counted to Abraham as righteousness." 983

Romans 2:29

αλλα πιογ Δ αϊ εθηπ πε πιογ Δ αϊ. αγω πο $\overline{\rm B}$ Βε πε πο $\overline{\rm B}$ Βε $\overline{\rm M}$ Πρητ $2\overline{\rm M}$ Ογρ Δ Ος αν. παϊ ετερεπείταειο σροπ αν εβολ $2\overline{\rm M}$ Ρωμε. αλλα εβολ $2\overline{\rm M}$ Πνογτε.

⁹⁸⁰ STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Rom.2.27&options=HVNUG], (last accessed: 13.10.2019).

⁹⁸¹ STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Rom.4.10&options=HVNUG], (last accessed: 13.10.2019).

⁹⁸² STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Rom.3.30&options=HVNUG], (last accessed: 13.10.2019).

⁹⁸³ STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Col.2.11|reference=Rom.4.9&options=HVNUG], (last accessed: 13.10.2019).

"But a Jew is one inwardly, and circumcision is a matter of the heart, by the Spirit, not by the letter. His praise is not from man but from God." 984

Colossians 2:11

"In him also you were circumcised with a circumcision made without hands, by putting off the body of the flesh, by the circumcision of Christ." ⁹⁸⁵

Philippians 3:30

ανόν γαρ πε πόββε ννέτωμώς εμπέπνα μπνούτε. ανώ ετωρύμου μμοού εμπέχ \overline{c} ις. ανώ ντήκω νετήν αν ετάρξ.

"For we are the circumcision who worship by the Spirit of God and glory in Christ Jesus and put no confidence in the flesh." 986

5.20.1 SURGICL INSTRUMENTS

There is an evidence of using surgical instruments from the post-Pharaonic period in Ange-Pierre Leca and Dawson. These instruments can be dated approximately to the Sixth and Twelfth centuries. They might have been used for surgery operations, particularly for ophthalmological surgery. The contents of the box are: a strong center of wood, an octagonal in the segment. Every single box's face it is divided into subsections and parts that include tools and small drug packages.

The items were held in place with slipping wood panels, precisely placed in grooves (figure 9). A lockerbar was carried across the middle of the interior part by a transverse groove that kept these two side panels

95

⁹⁸⁴ STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Rom.2.29&options=HVNUG], (last accessed: 13.10.2019).

⁹⁸⁵ STEP Bible. [https://stepbible.org/?q=version=ESV|reference=Rom.2.29|reference=Col.2.11&options=HVNUG], (last accessed: 13.10.2019).

⁹⁸⁶ Biblehub. [https://biblehub.com/philippians/3-3.htm].

in place, was pressed in to hold them, and stretched out to set them free. Another evidence Heid. Äg. Slg. Inv.-Nr. 491 from Qarara (Ezbet Karara) various forceps which could be used for pulling out the thorns (figure 10). 987

The use of surgical instruments in the post-Pharaonic period appeared in the texts as cotby ntmntcaein or ncotby ncaein which mean medical instruments or physician instruments. 988

In another text, the use of the τοκ "knife or razor" is also has been reported παλειν....αμωστ ... εμ πτοκ "The doctor ... cuts with the knife". Another passage reported that the wound was cutting with the πιθοκ "knife". 990

5.21 ANATOMY AND PHYSIOLOGY

Anatomy is the study of body parts and organs. Physiology is a science concerned with the function of body parts. The available sources prove the modest anatomy knowledge, corresponding texts as they are demonstrated by the ancient Egyptians Papyrus Ebres 854 and are not available from the Coptic medical sources. However, the presence of the major internal organ systems of the body organs in Coptic medical texts throw light on their understanding of the body structure, location, and function of these organs. Some prescriptions provided an anatomical perception of certain organs of the human body. It could be beneficial to summarize the names of the main internal organs mentioned in Coptic medical texts.

The brain was known by two words used interchangeably in medical prescriptions ανκεφολος, ανκεφαλος "contents of the head (i.e. brain)" in P.Ryl.Copt. 107. It corresponds to the Arabic word *Al-Moukh* .

The lung was known by πνεύμων in P. CARLSBERG 500, folio C ro, II. 8-11: μεν εσώπε ογνογα σώνε επεςπικέγμων παστη μαρεσογομη "and when someone is sick in his lungs, cook it, and let him eat it".

The heart is known by 2μT in medical texts and the word 2μT "heart" appeared only in two recipes and refere to a heart condition. The first medical recipe preserve a heart condition symptom called πκωλα2. Although the recipes did not mention that this symptom is related to the heart, P.Ryl.Copt. 106, ll. 15-26 (see 5.17.6) prescribed a remedy against knocking and recommended to "put something (of it) on (?) your heart, like an egg". The second recipe preserve a heart symptom called "A heart that is like a whirpool":

988 MSS an der Bibliotheque nationale. Paris. Crum's copies: 44; 94. Kolta 1984: 164.

⁹⁹⁰ Devis 1922: 1. 148.

⁹⁸⁷ Bárány, Müller and Willer 2011: 24

⁹⁸⁹ The opening of the wound has already been described in pharaohs at the time of the treatment of snake bites, as in the Brooklyn papyrus. Behlmer 1996: 280.

O Bachit 1170+1172

иелевна кух и<u>г</u>фолк и<u>бих</u> ебоол \dot{u} [\mp 6] \underline{c} и $\underline{\theta}$ [$\underline{\omega}$ $\underline{\psi}$ олент елоиверф, вуфолф, сумолень солых, таши, игоноол и<u>и</u>

P A heart that is like a whirlpool: Rue, Syrian (?) fennel, mother cumin. Crush them well together and add a little (?) vinegar to them. . . [with God⁹⁹¹

The spleen is a small internal organ located in the left of the stomach (see figure 8). It is known by two words used interchangeably: стхни and ноего "spleen", treated medically in various recipes: P.Mich. MS 136, ll. 34-38; P.Mich. 593*a*, ll. 15-18; Ch 65; P. CARLSBERG 500, folio D ro, ll. 1-14:

P.Mich. MS 136, ll. 34-38

прос спіни докімом ємпластром апо пршїас єсь о тис ирерас. \dot{N} йєїст' \dot{N} охугтім йрір ді \dot{N} ечху томоу. \dot{N} суху томоу.

For (a disorder of the) spleen: A proved plaster. From morning till the sixth hour of the day. Flower of barley (mixed) with fat of swine (mixed) with very acrid vinegar (and) salt. 992

P.Mich. 593a, ll. 15-18

етве оүршне еічноеіш) филе хі [нак......] йпіпр ий оүхнстнс енаскалон е[.......] лаваөрөн ий оүсатере дкоүшіа [.......] ниег йне иїтріве йнооү гі [.......]

For a man whose spleen is diseased: Take..... of pepper and a sextarius of asplinium.....malobathrum and a sateere(s) of genuine oil, and rub them with.....⁹⁹³

⁹⁹¹ Translation: [https://www.koptolys.gwi.uni-muenchen.de/showOstraka.php?id=497], (last accessed 30.08.2021).

⁹⁹² Translation: Worrell 1935: 29, with slight modification.

⁹⁹³ Translation: Worrell 1935: 194.

The liver was known by ξηπαρ, and the min complaints that related to it were "sick liver", "burning outside", "knocking" O.Mon.Epiph. 575 (5.7); P. CARLSBERG 500, folio D ro, Il. 10-14 (see 8.3). In addition, jaundice is a symptom of a liver condition and the medical recipe Cod.Med.Copt., p. 243, recipe no. 28 (see 5.16.19), and Cod.Med.Copt., p. 244, recipe no. 42 (see 5.9) prescribed for jaundice, the first recommended an oral remedy and the second recommended an ointment. I have discussed these conditions in details see (5.9 Liver disorders).

The kidneys were known by 6λοοτε (pl.), the medical recipe Cod.Med.Copt., p. 243, recipe no. 28 listed kidneys with liver and other skin diseases, and recommended an oral remedy to treat these disorders (see 5.16.19). It is worth mentioning that the important organ found in this formula namely the "kidney" didn't found in ancient Egyptian sources.⁹⁹⁴

The stomach was known by стонахос, στόμαχος, I have discussed every stomach conditions in section (5.7). The stomach was known also by the compound words: про мпекент "the mouth of the heart" in P. Ryl. Copt. 106, ll. 61.

Intestines were known by μαζτ, and the medical recipe Ch 75 mentioned a specific type which is: πΝοσ ΝΜΑΖΤ "the great intestines", which was known also by μεζτο/φ in (Ch 224 and Ch 225) (see 5.8).

Physiology

No data are available about any physiology book in Coptic medical texts. The Coptic medical texts indicate that there was simple information about physiology. The Coptic medicine lose the description of the heart, the pulse, or the vascular system. The causation of many diseases (pragmatism) was not clear in the medical texts, the cause must have been unknown, and classical symptoms of infection are pain, swelling, and fever. In Ch 216 and Ch 232 there is a remedy for infected wound επλγγη κικη ετχοξία. Another recipe O.Mon.Epiph. 575 mentioned that the sick liver which especially knocks, that the patient cannot sleep. They were aware of the human digestive system, so they invented many remedies and laxatives for constipation Ch 74 and P.Mich. 593b. Moreover, they aware of the urinary problems and bladder dysfunction caused by urine sand, and they found remedies to remove these sands from the bladder.

⁹⁹⁴ Kolta 1984: 161–162.

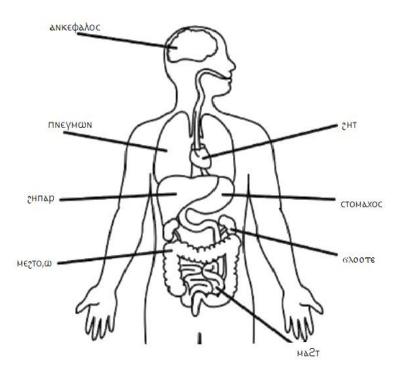


Figure 7. Internal organs of human body

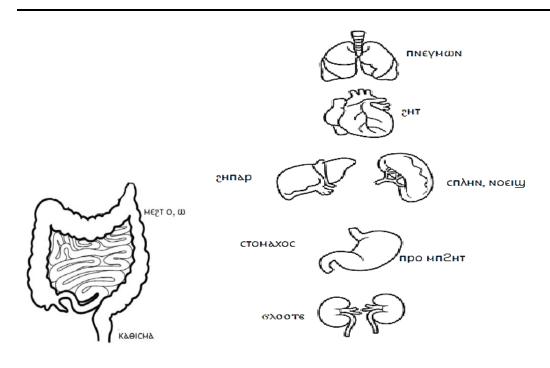


Figure 8. Anatomical organs

Table 5. Diseases of the internal organs

ANATOMIAL	ORGAN DISEASE IN MEDICAL	TRANSLATION	REFERENCE
DESTINATION	RECIPES		
BRAIN	оүанкефолос еч†кас	Brain that is painful.	P.Ryl.Copt. 107
LUNG	ефипе оүнөүх фине	When someone is sick in	P. CARLSBERG
	епечпиеумши	his lungs.	500, folio C ro,
HEART	иолсоолбе. ксят олууул ебьяі бі [°] üёкбні иөе	Put something (of it) on (?) your heart, like an egg.	II. 8-11 P.Ryl.Copt. 106, II. 15-26
	Р оүгнт ецойверш	PA heart that is like a whirlpool	O Bachit 1170+1172
SPLEEN	оүпагре ефацобрапсус йистффис	A remedy to treat those who suffer from the spleen.	Ch 65, 1. 125
	е́івеоЛьтне еьецедноіт тыв	For someone whose spleen is diseased.	P. CARLSBERG 500, folio D ro, ll. 1-2
	прос спхни докімом ємпхастром	For (a disorder of the) spleen: a proved plaster.	P.Mich. MS 136, 1. 34
	етве охраме еідноеіа) адаме	For a man whose spleen is diseased.	P.Mich. 593 <i>a</i> , Il. 15-18

LIVER	хнd едве ибниуь едфоне идейе́двоу	For the sick liver, which is burning outside.	O.Mon.Epiph. 575
	етвеугнпар еффине оулоі[ге гипиооу пт[еівотанн гіецій марефсш.	For a sick liver, excrement in the juice of this plant, with honey. Let him drink.	P. CARLSBERG 500, folio D ro, Il. 10-14
KIDNEYS	етве фоне нін псоваг ни нгоке ни прупар ни пфініктерос ауф неблооте	For all diseases, the leprosy, itching, the liver, jaundice, and kidneys.	Cod.Med.Copt., p. 243, recipe no. 28
STOMACH	етве фине нім ет <u>г</u> п пестомахос оустомахос нтацвибе.	For all diseases that is in the stomach. Stomach that leaps.	Ch 68, 1. 134
	оустомахос ечтентши йтну ере течло ніве	Stomach heavy with gas, so that it stops blowing.	Ch 69, 1. 135
	оүтонахос (sic) ечноүх сасу ечкни еграі $\overline{\mathrm{ei}}\mathrm{e}$ ечсове инін нін	Stomach that produces/throw up black bile or is swollen in any	Ch 70 l. 137
	оүстомахос бүүккас	way. Stomach that have pain.	Ch 71
INTESTINES	оүтсш етве пноо йнагт синринс	A potion to the large intestine.	Ch 75, l. 150
	оуа ере печмегто фине	Someone whose great intestines is sick.	Ch 224, l. 402
	едиўнех сиод ебья <u>;</u> [е]две оля едффие ецёдся ибол <u>и</u>	Concerning someone who is sick in his inward parts, (and) casting up blood.	O.Mon.Epiph. 574

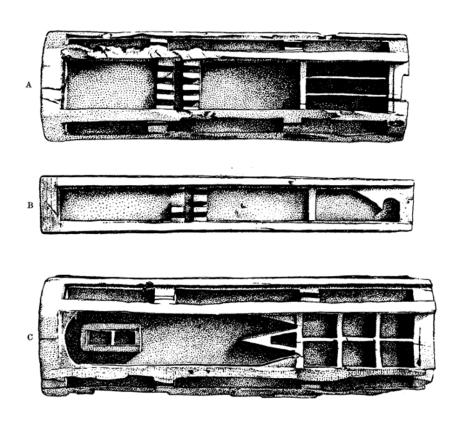


Figure 9. A COPTIC SURGICAL INSTRUMENT CASE. (After Dawson 1923: 57).



Figure 10. Heid. Äg. Slg. Inv.-Nr. 491. Tweezers, from Qarara. (After Bárány, Müller and Willer 2011: 24).

6. MAGIC AND MEDICINE IN COPTIC SOURCES

6.1 ETIOLOGY AND THERAPY

The use of magic for medicinal purposes has a long tradition since the beginning of the Pharaonic period. The Edwin Smith papyrus, dated ca. 1550 BC, 995 is one of the oldest documents of medical treatment (especially concerning surgical purposes), and is considered the most systematic and scientific medical papyrus. There is only one spell within its medical prescriptions. 996 Widespread beliefs among ancient Egyptians consider evil deities and demons to be responsible for conjuring up diseases. Usually, evil persons invoked these deities in order to bring the illness and disaster to the adversary. 997 Similarly, in post-Pharaonic period pagans and Christians believed that illness was a punishment from a god or the retaliation of an evil spirit. According to this belief, if the cause of the disease was thought to be supernatural, it was also reasonable to look to the supernatural for its cure when traditional medical practice proved powerless. Thus, the incantations were directed to disease-demons, summoning them to leave the victim's body. 998 Horstmanshoff and Stol argue that not only people but also divine beings, due to their supernatural power, utilised magic to dispose of disarray and those deities responsible for bringing and also repelling the diseases. 999 In particular, the lioness-headed goddess Sekhmet, was capable of causing lethal sicknesses, which healed only with the help of one of her priests. The Sekhmet priest held the role of the physician in terms of treating diseases but, in this case, he used magic. Nevertheless, in certain cases the magic performed by the Sekhmet priest had to be combined with medicine in order to repel diseases. Papyrus Ebers (No. 3) states that "The magic is effective with the remedy; the remedy is effective together with the magic". 1000 The same concept is transmitted into the Coptic texts in Byzantine Egypt which testify to a similar interweaving of magical and medical treatments, but instead of depending on the goddess Sekhmet, people relied on prayers that invoked God and his power to provide healing. 1001

Kropp argues that the Coptic magical texts of healing are closely related to its medical counterpart since their users lacked obvious exegesis about etiology and the therapy of the diseases affecting them. It seems

⁹⁹⁵ Nunn 1996: 25.

⁹⁹⁶ Nunn 1996: 96. An alternative interpretation identifies eight spells (against air contaminated by infection, fever, mental breakdown, a swallowed fly, and diseases caused by demons). Strouhal, Vachala, Vymazalová 2014:23.

⁹⁹⁷ Magic can be divided into two categories: The first: that which is used for beneficial purposes such as protecting, love, healing, business; the second: that which is used to reinforce the outrageous acts and artifices, cause disasters, and to bring the diseases to those who went against them.

⁹⁹⁸ Nunn 1996: 96.

⁹⁹⁹ Horstmanshoff and Stol 2004: 134.

¹⁰⁰⁰ Schenke 2002: 101.

¹⁰⁰¹ Schenke 2002: 101.

that the sick people sought the cause of a disease (somatic etiology) because they needed the correct medical remedies (prescription therapy). Also, they believed that the cause of the body affliction may have been due to the interference of gods, ghosts, and demons (demonic etiology). In this case, instead of the useless medical treatment, the magical therapy would have to take place. And in many cases, they linked the two ways to achieve the desired result. 1002 Certainly, if the disease was thought to be caused by a hidden power or witchcraft, it was also reasonable to use supernatural ways to treat it. This thought was even more applicable in treating mental and internal diseases, 1003 as the reasons of these diseases were not so clear, dissimilar to the external, visible diseases treated with medicine. The supernatural ways appeared in invoking specific deities, or in reciting incantations to drive out the demons by using magical characters and signs. 1004

Moreover, a segment of people believed that the diseases were a punishment for human misconduct. This concept is clear in the private letter O.Vind.Copt. 261, 1. 4–10, ¹⁰⁰⁵ which states:

O.Vind.Copt. 261, l. 4-10

ετρεκτηνοού ούκου νησύμη δη μεθλειστής ννετούση αλώ ΝΓΤΒΡ ΝΕΌΝΗΥ ΕΤΟΥΆΔΒ ΕΤΡΕΥΠΑΡΤΟΥ ΡΑΡΟΙ ΝΟΕΤΒΡ ΠΝΟΎΤΕ ΕΧΝ ταμντρέψρ νοβέ μμον τρορώ εματέ τώωνε δε ανν σολ αόλιλις $NA\Theta\overline{M}P$

That you may send a little prayer oil from the altar of the saints and pray to the holy brethren, that they may prostrate themselves before me (and) pray to God for my sinfulness, for I am in a very bad condition. Since the 29th Hathor I am sick. 1006

Here we can see that the sick person has connected his illness with his sins, thus his relationship with the God. 1007 Magical texts in many cases invoked God and contained prayers in religious terms, and some

¹⁰⁰² Kropp 1930: 3.174.

¹⁰⁰³ For example: BKU 26, ll. 25–28; Michigan 136, ll. 169–175.

¹⁰⁰⁴ Nunn 1996: 96.

 $^{^{1005}}$ Ostracon, 9.5 x 13 cm, dates to the 7^{th} cent. CE. Till 1960: 64.

¹⁰⁰⁶ My English translation, adapted from the German translation by Till 1960: 64.

¹⁰⁰⁷ This sentiment is reflected explicitly in the New Testament, for example, in James 5:13-16, where prayer for an ill person was often recommended as a way to recovery. James 5:13–16: "Is anyone among you suffering? Let him pray. Is anyone cheerful? Let him sing praise. Is anyone among you sick? Let him call for the elders of the church, and let them pray over him, anointing him with oil in the name of the Lord. And the prayer of faith will save the one who is sick, and the Lord will raise him up. And if he has committed sins, he will be forgiven. Therefore, confess your sins to one another and pray for one another that you may be healed. The prayer of a righteous person has great power as it is working."

magic texts contained quotations from the Bible, Psalms, and the Gospels. The same belief was applied to the illness of innocent children, as their illness was seen as a punishment for their parent's wrongdoing. The so-called children's donation documents show that the disease of their child was regarded as a punishment for their own sins. According to these documents, children were handed over to a monastery by their parents in gratitude for their recovery, as shown in P.KRU 80, 1. 12–21:¹⁰⁰⁸

P.KRU 80, l. 12-21

ги птреплант илоүте кебече исехпо наі мпамеріт ифнре авраам арі ΠΜΕΘΎΕ ΜΠΑϢΑΙ ΝΝΑΑΝΟΜΙΑ ΝΤΑΙΑΑΥ ΑΙΟΥΟΌΟ ΕΤΑΑΥ ΕΡΟΥΝ ΕΥΤΟΠΟΟ 2Α ΤΑΝΑΠΑΥCIC ΝΤΑΥΥΧΗ ΑΙ2ΟΡΙΖΕ ΜΜΟΥ ΔΕ ΕΥΦΑΝΦΝΣ ΦΑΙΤΑΑΥ Ε2ΟΥΝ епмонастиріон нпапа фівамфи †натамфти енеіноб ифпире ипмоуте етен нечпетоуаав ен птрепноуте аузане мпеюнре фин итеіміне аюуши спарава мпернт нтакимту ми пноуте ми печпетоуаав етитали егоүн ептоп[ос] етоулав плі нтліерит имоч ероч инношс АПОЈНРЕ ОЈНИ РЕ ЕРРАЈ ЕУНОО НОЈОНЕ ЕЧРОРОЈ ЕМАТЕ АЧЕЈ ЕПИОУ НРАР исоп схедои петнанау броч нудоос де фачноу аір пиббуб иппове ин ΤΠΑΡΑΒΑСΙС NTAIAAC αιταλο мпфнье шни λιχιτα **620AN** епмонастиріон етоуаав мпмегснау исоп

When my dear son Abraham was born to me on the order of the merciful God, I remembered the multitude of sins I had committed. I loved to give him (the son) to a monastery for the peace of my soul. I determined that if he remained alive, I would give him to the monastery of Apa Phoibammon. When God let this boy grow up, I wanted to break the vow made to God and to his saint, and not give him to the holy Monastery to which I had promised him. Then the boy began to suffer from a great, very difficult illness. Often he came almost to death. Anyone who saw him thought he was going to die. I remembered the sins and the transgression I had committed. I took the boy and took him to the holy monastery for the second time.

Papyrus, 6 complete fragments, 44,5 x 11 cm, dates to the 12. March 776, from Thebes. Bilingual script of Coptic and Greek. Bibliography: Kenyon 1893: (P. Lond. 1 p. XVII no. 79 Ro descr.); Crum 1905: 177; Crum 1912: 260–263 (transcription only); Preisigke 1915: 186 (only Greek script); Till 1964: 152–154; Thessen 1986: 122 (translation); Richter 2011: (translation) ll. 41–42; ll. 13; 23–24.

Coptic medical books ¹⁰⁰⁹ lacked the magical aspect, which was not essentially needed, as these books were dependent on popular remedies that used mainly natural ingredients and therapeutic techniques. On the other hand, some of popular medical prescriptions show a strong magical influence, as BKU I 25, ¹⁰¹⁰ which contains accurate anti-insomnia drugs, and a prescription against skin swelling, palpitations, the blood flow of a female, and inflamed hip. The magical aspect is presented by using a special remedy of the virginal sycamore at the time of the full moon (εγνορε παρτενος [ε][ρε]ποος νογε), combined with calling the demon name αβραξαξ "Abraxes", on the sick in the desert "ερμινος, ἔρημος". ¹⁰¹¹ A further remedy for inflamed eyes includes the magical custom of pouring healing water and an incantation ναικάνλ. $\overline{\text{Cap}}$. $\overline{\text{αβραξαξ}}$. Also, BKU I 26 (P. 8116 a/b and 8117), ¹⁰¹² P. 8116 a (II. 2–11) describe a love magic spell: "the beloved will come into your house if you wish". Lines 12–14 describe how for to prevent someone from quarreling with you. These recipes are followed by a text from the Physiologus to find the diamond stone "πονιί ναλμορες". ¹⁰¹³ of the wise man (II. 15–23), ¹⁰¹⁴ and a remedy against bad memory (II. 25–29).

P. 8116 b contain recipes to treat the possessed and bewitched (ll. 17–19), expel the fear (ll. 31–32), in addition it contains a power-charm (ll. 33–35), love–charm (ll. 36–40), recipe against the bedwetting of a young child (8117b, ll. 12–14), and a harmless charm that puts people in dispute (ll. 15–16). 1015

6.2 RELATIONSHIP BETWEEN MAGIC AND RELIGION

Magical texts are considered a subject replete with the religious elements that bore witnesses to changes and transformations that occurred in the first five centuries in Egypt. Religious influences in magic texts are clearly present due to the use of many different religious elements such as "pagan", "gnostic", "Judaism", "Christianity" and "Islamic". The Coptic magical texts date back to between the fourth and the twelfth century CE: the period of different religious conversion in Egypt. Thus the magical texts were affected by this conversion and present to us different religious aspects of various religious cults. During the first five centuries CE, Egypt transitioned from a "paganism" to a "Christianity". Many texts state that

¹⁰⁰⁹ Ch and Cod.Med.Copt., p. 214-215. And other medical texts such as P.Heid. G 698c; P.TT157-470; P.Carlsberg 500; P.KölnÄgypt. 12; O.Crum 487; O.Brit.Mus.Copt. I 49; O.Brit.Mus.Copt. II 37; SBKopt. I 004; SBKopt. II 1043; Cod.Med.Copt., p. 214-215; CAT. NO. 137 (98:Ms4); P.Louvre AF 12530. Such medical texts do not contain any references to magical practice, they only comprise of medical recipes.

¹⁰¹⁰ Erman 1904: 24–25 (transcription).

¹⁰¹¹ Kropp 1930: 3.175–176.

¹⁰¹² Paper remnants of a manuscript in book from Al-Faiyūm. Each document was pinched lengthway, so that it formed two sheets, including P. 8116; lower part of two leaves, together 28 cm. wide and at least 29 cm. high; and P. 8117 upper part of a right leaf, 14 cm. wide, now 18 cm. high. Nothing can be determined about the order of these 3 sheets.

الماس Arabic al-mās الماس, "diamond". Erman 1904: 4; Richter 2015: 162; Richter 2016b: 155.

 $^{^{1014}}$ l. 15 (аусефис хаас хе-пині нахимес).

¹⁰¹⁵ Kropp 1930: 3.175–176.

at the start of the fourth century the majority of Egyptians most likely worshipped the same gods that had been worshipped in Egypt for thousands of years so many magical texts invoked Osiris, Isis and Horus, in addition to other deities. By the end of the fourth century CE, Roman emperors had begun to outlaw core elements of traditional activities, and Egypt was almost completely Christian by the end of the fifth century. However, in Alexandria, there was a notable group of "pagans" who mixed Late Greek platonic philosophy with Egyptian theology. ¹⁰¹⁶

The containment of magical texts on various religious elements is evidence of development, keeping abreast of social events, and not sticking to old patterns. This confirms the idea that the use of religion in magical practices was related to the magicians, who had a better understanding of how to handle the superhuman inverse than average people, allowing them to experiment and improvise on existing methods. Since the most-effective practitioners were those who confidently possessed a broad and varied range, adaptable to all times, it gave them the impetus for creativity, since the most-successful practitioners were those who confidently boasted a wide and varied vocabulary, adaptable to all occasions. So nearly all religious practices constituted attempts to communicate with other beings – gods, demons, angels, or the universe itself. 1017 This communication is always by way of names and knowing their secrets- the knowledge that God singled out Adam alone, excluding the rest of creation from the angels and demons Genesis 2:19; Quran 2:31. Animals, herbs, rocks, and celestial bodies, as well as parts of them (an animal's foot, hair, blood, etc.) were thought to be able to cause or prevent illness or death, and to influence men's fortunes in general. And the magician is a man who understand the names of the angels and demons, elements and their benefits and able to compel these creatures to do his will by the use of some means. 1018 For more immediate gains, the magician or composer was dependent on religious ideas that were known and already believed by people in it in order to confirm the credibility of his work in front of his customers. So, they were relying on various aspects of the religious concept of divine power: invoking angels and archangels, using saint's prayers, citing gospels and psalms, and after Islam using verses from the Quran or listing the names of God, providing a parallel to the Christian tradition of quoting from the Bible. 1019 The Coptic magical texts date from the 5th to 11th cent. CE, a period when the overarching worldview was Christianity, and the majority of Egyptians were Orthodox Christians, as a result, magical texts represent this, and it seemed to follow some kind of Christianity. So invoking Jesus in different aspects in magical texts was because he was also said to be able to cure the blind (Mat 9:27-31; Luke 18:35-43); Quran 3:49, mute (Mat 9:32-34), heals the leper (Mark 1:40-45); Quran 3:49, and lame (Matthew 15:29-31), as well as

¹⁰¹⁶ Coptic Magical Papyri [https://www.coptic-magic.phil.uni-wuerzburg.de/index.php/2018/12/13/religion-in-the-coptic-magical-papyri-i-paganism-and-christianity/], (last accessed: 04.05.2021).

¹⁰¹⁷ Johnston 2007: 141–142.

¹⁰¹⁸ Toy 1899: 330.

¹⁰¹⁹ https://www.coptic-magic.phil.uni-wuerzburg.de/index.php/2019/08/02/religion-in-the-coptic-magical-papyri-x-islam-and-coptic-magic/

any disease "healing every disease and sickness among the people" (Matthew 4.23); heals the possessed (Mark 9:14-32), and raises the dead (Luke 7:11-17; 8:40-42); Quran 3:49; design a real bird from clay "I design for you from clay [that which is] like the form of a bird, then I breathe into it and it becomes a bird by permission of Allah. And I cure the blind and the leper, and I give life to the dead - by permission of Allah. And I inform you of what you eat and what you store in your houses" Quran 3:49. Many pre-Christian Greek and Roman writers regarded Jewish people as accomplished magicians, and Moses in particular was regarded as an arch-magician. ¹⁰²⁰ Also, the magical texts invoking Solomon and his demons in various magical purposes.

Coptic healing spells are considered a repercussion of medical practices in Post-pharaonic Egypt, and thus present specific information on the common diseases in this period. Most of the healing spells did not distinguish between magic, medicine, and religion. These types of spells included a combination of medical substances and magical phrases in addition to citing passages from Scripture. For example, P. Mich. MS 136 includes traditional remedies for young children suffering from teething pains, as well as hemorrhoids, malignant diseases and skin diseases presented in mythological terms combined with imploring the Egyptian deities and also invoking the angels, and Iao Sabaoth; in addition to the special amulet of vowels for treating a migraine. Even the components of herbal and traditional remedies are also used ritually or introduced in symbolic terms. For example, in the ritual text PGM XII. 401–44, 1022 the scribe describes the names of the herbs as ritual spells in form of code names to keep it secret:

PGM XII. 401-44

"Blood of Hephaistos: wormwood

Hairs of a Hamadryas baboon: dill seed

Semen of Hermes: dill./ Blood of Ares: purslane.

Blood of an eye: tamarisk gall.

Blood from a shoulder: bear's breach

From the lions: camomile.

Aman's bile: turning sap./

A pig's tail: leopard's bane.

A physician's bone: sandstone.

1020 https://www.coptic-magic.phil.uni-wuerzburg.de/index.php/2019/03/08/religion-in-the-coptic-magical-papyri-viii-judaism-and-coptic-magic/

1022 PGM XII, is a Greek text, PDM XII is a Demotic text. The same writer wrote a part of the text in Greek and Demotic, dating back to 2nd–3rd cent. CE. It preserved a collection of different purposes such as a prayer for disclosure of a cure for a disease, charms, demanding for receiving a dream, stimulating insomnia, causing separation, and love spells. See, Betz 1986: 153–172.

¹⁰²¹ Meyer and Smith 1994: 79.

Blood of Hestia: camomile.

An eagle: wild garlic (?).

The relationship between religion and magic is complex and sometimes overlapping in a way that it is difficult to distinguish between them. Coptic healing spells and amulets are like the other magical texts brimming with religious elements such as the invocation of angels, saints, Jesus, and the quoting of specific Biblical and Gospels passages.

Johnston¹⁰²⁴ points out that the magic was almost exclusively a descriptive expression rather than a normative one. From our vantage point, there is no clear distinction between magic and religion in the ancient world. In most Mediterranean cultures, the structures of "magical" prayers were similar to that of "holy" prayers, and in cultures where a sacrifice was an integral aspect of religious ritual, it often stood at the heart of magical rituals. The same saints and holy men that appear in biblical scriptures are invoked in amulets against sickness and other emergencies.

The Coptic magical-medical texts, like other magical texts, were influenced by ancient Egyptian culture and even other foreign cultures, especially Greek and Jewish. Thus, these texts contain invocation to the gods Amen, Osiris, Isis, Horus, Thoth, and Nephthys, 1025 followed by the invocation of Althonai and Adonai (Hebrew "My Lord"; ALONA "the one who rules over the four corners of the world", 1026 and also Michael (MIXAHA) the archangel. 1027 In addition, the archangel Gabriel is also mentioned three times in the same spell "Lord Gabriel, Lord Gabriel, Lord Gabriel, heal the patient". 1028 Multari 1029 argues that "Coptic magic is the magic practiced by Egyptian people converted to Christianity. It is syncretistic magic: in fact, the magic-religious substratum of rituals is Egyptian but influenced by foreign cultures such as Babylonian, Greek-roman, and in a particular way Jewish culture. Frequently foreign divinities are equated to Egyptian deities and very often, for example, the Jewish-Christian god Yao Sabaoth is identified with the Egyptian God Amen".

Some magical-medical texts document the broad use of ancient Egyptian *historiolae*: recitations of legendary antecedents that connected with specific events to heal certain diseases, such as texts: P.Mich.

¹⁰²³ Translation: Betz 1986: 168. (without transcription).

¹⁰²⁴ Johnston 2007: 142.

¹⁰²⁵ The long invocation of the reproductive powers of Egyptian deities (Amun, Thoth, Isis, Horus), P.Mich. MS 136, ll.60–114 in Worrell: 1935, no. IV.

¹⁰²⁶ P.Mich. MS 136, ll. 154.

¹⁰²⁷ ACM, 95, no. 49.

¹⁰²⁸ P.Mich. MS 136, l. 51.

¹⁰²⁹ Multari 2015: 84.

MS 136¹⁰³⁰ (Il. 57–114); *ACM*, 92, no. 47;¹⁰³¹ and *ACM*, 95, no. 49.¹⁰³² In these healing rituals, the patient's illness or injury is linked to a mythological case; for example, a snakebite was linked to *Horus's* snakebite or gynaecological haemorrhage was thus, *Isis's* haemorrhage).¹⁰³³

Within the narrative resolve, the Egyptian deities such as Re or Thoth are invoked to treat the patient affliction. Usually, the reciting of these narratives is accompanied by special ritual signs and movements and the application of specific materials as in P.Mich. MS 136, Il. 42–52, which also contains a Homeric verse (Iliad 3, 33-35), 1034 for the purpose of healing. The occurrence of Homeric verses of poetry in the magical texts continued from the 4th cent. CE to the Middle Ages in Egypt, especially for the purpose of healing and protection. 1035 The use of Homeric verses appears to be a magical tradition mostly associated with healing purposes, The Greek folios Lucian's *Charon* (7.12–13) provides the first evidence of using a Homeric verse for healing purpose in dialogue with magic. Charon suffered from near-sightedness, but after following the instruction of god Homer to use a charm containing the recitation of a Homeric verse (Iliad 5. 127–28), he was healed and able to see well again. 1036 Another evidence for the healing use of Homeric verses can be found in Galen's experience. Collins argues that he tested the effectiveness of Homeric verses on himself to dislodge the bones lodged in the throat and to treat the sting of a scorpion 1037 as shown in P.Mich. MS 136, Il. 42–52:

P.Mich. MS 136, ll. 42–52

прос рігос . o[c] дотє тіс те драконта їсши палінор[c]ос анаєнти . оуреос ен виссис ўпо те тромос еллаве гуіа . Афте ансхшриссен ктріте . Гавріна ферапеусон то дд иди $\bar{\bf b}$. Таху . Таху . Отам оун поієіс $\bar{\bf z}$ хордас и стимонос и крокис . Дисас пінсон $\bar{\bf z}$ амма. Каі єїс тін

¹⁰³⁰ Worrell 1935: 17-37.

¹⁰³¹ Papyrus, 18 x 31 cm. Bibliography: Kropp 1930: 2.12–14; Beltz 1983: 61–63; Meyer and smith 1994: 92.

¹⁰³² Papyrus, 23 x 35.5 cm. It contains two columns the first column I contains a healing spell with the legend of Jesus and a doe that is in labour (lines1–18), the second column II 1–23, and Verso 1–8. Bibliography: Kropp 1930: 2.9–12; Beltz 1983: 65–67 (Beltz provided another different number (8314)); Meyer and Smith 1994: 95.

¹⁰³³ Meyer and Smith 1994: 80.

¹⁰³⁴ ὡς δ' ὅτε τίς τε δράκοντα ἰδὼν παλίνορσος ἀπέστη οὕρεος ἐν βήσσης, ὑπό τε τρόμος ἔλλαβε γυῖα, ἂψ δ' ἀνεχώρησεν, ὧχρός τέ μιν εἶλε παρειάς, ὡς αὖτις καθ' ὅμιλον ἔδυ Τρώων ἀγερώχων δείσας "And even as a man at sight of a snake in the glades of a mountain starteth back, and trembling seizeth his limbs beneath him, and he withdraweth back again and pallor layeth hold of his cheeks". Perseus Digital

Library[http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0134%3Abook%3D], (last accessed: 02.02.2021).

¹⁰³⁵ Collins 2008: 211–212.

¹⁰³⁶ Collins 2008: 215. "Sit still! I'll remedy this inconveniency immediately, and with a certain *Charm* I learnt of *Homer*, make you the most quick sighted imaginable; and after I shall have pronounc'd those Verses, be confident that your Eyes shall no longer be dim, but you will see every thing clearly". For the full text of Lucian's Charon see (EEBO) TCP [https://quod.lib.umich.edu/e/eebo2/A49416.0001.001?rgn=main;view=fulltext].

¹⁰³⁷ Collins 2008: 211.

"For chills and even as a man at sight of a snake in the glades of a mountain starteth back, and trembling seizeth his limbs beneath him, and he withdraweth back again ...¹⁰³⁸ (Gabriel, cure so-and-so, (son / daughter of) so-and-so, Straightway, straightway, Quickly, quickly! Whenever, accordingly, you make seven cords, either of warp or of woof, binding (them), make seven knots and, looking toward the east, say three (times): Lord Gabriel, Lord Gabriel, Lord Gabriel, Heal the sufferer."

Although such citations only appear only in a magical context, I have found the same citation of (Iliad 3, 33–35) occurring in a medical recipe (I.Saqqara 103). ¹⁰⁴⁰ It is from the Monastery Apa Jeremias at Saqqara and contains medical treatments for swelling, wounds, and for the figures of a snake, which appear to a sick person.

Another example of a *historiola* is *ACM*, 101, no. 55,¹⁰⁴¹ in which an amulet is used for protection from a snakebite. It contains words of power, and the names of the Three Wise Men and a Biblical quotation from Psalm 119:105: "Your word, lord, is the lamp of my feet, and it is the light of my path". ¹⁰⁴² Quoting scriptural texts was not exclusive to Christians, but maybe they inherited this practice from Judaism, since in Egypt, as elsewhere, the first Christians were most likely Jewish converts. The Dead Sea Scrolls and the Cairo Genizah indicate that Jewish cultures were using the Psalms for protection from evil spirits and that this practice persisted even after Christians appropriated their scriptures. ¹⁰⁴³

The Jewish influence is apparent in Coptic medico-magical spells, for example the wording Sabaoth (CABACDE), SABAOTH, which is a Hebrew title for God. Lord Sabaoth means "lord of hosts". Yao Sabaoth and Lord Almighty are all variations of the same title. SABAOTH is mentioned both alone and also alongside ancient Egyptian deities; ¹⁰⁴⁴ and also appears as Yao Sabaoth with the ALPHA formula. ¹⁰⁴⁵ The

¹⁰³⁸ The figure of the snake that appears to the sick person also appears in a *dipinto* from the Monastery of Apa Jeremias at Saqqara (I.Saqqara 103). It is parallel to (Iliad, III, 33–35). Worrell 1935: 29. Iliad book 3, 33–35 "And even as a man at sight of a snake in the glades of a mountain starteth back, and trembling seizeth his limbs beneath him, and he withdraweth back again and pallor layeth hold of his cheeks". Perseus Digital Library. Retrieved on 02.02.2021 from [http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0134%3Abook%3D].

¹⁰³⁹ Worrell 1935: 29–30.

¹⁰⁴⁰ For the information on the texts referred to see (section 2.1.5).

¹⁰⁴¹ Parássoglou 1974: 107–110; Meyer and Smith 1994: 101–102.

¹⁰⁴² Translation: by Neal Kelsey in Meyer and Smith 1994: 102.

¹⁰⁴³ https://www.coptic-magic.phil.uni-wuerzburg.de/index.php/2019/02/15/religion-in-the-coptic-magical-papyri-vii-the-bible-and-magic/ (last accessed: 05.05.2021).

¹⁰⁴⁴ P.Mich. MS 136, l. 104; l. 121.

¹⁰⁴⁵ Meyer and Smith 1994: 98.

adoption of Jewish elements in magical texts is due to the reputation of Jewish people as experienced magicians, and many pre-Christian Greek and Roman writers viewed Moses as an arch-magician. 1046

Another Jewish tradition in Christian magical texts is the invocation of Solomon and his demons in magical contexts to heal the diseases caused by demons. 1047 This tradition demonstrates that Christian magical practice was based on the Jewish traditions. P.Heid.Inv.Kopt. 408, 1048 a paper fragment dating back to between the 10th and 11th cent. CE, contains two curses to destroy workplaces and agricultural implements. The "Jewish" aspect appears in the mentioning of the dialogues between King Solomon and two demons named Khoubin Harpak and Bersebol: "Solomon asked him, ["What is your name?"] [He replied, "My name is] Khoubin Harpak." Solomon said to him, "What is your work?" He said to him "My work is destruction. I have never done good, ever. All evil follows in my wake: a thresher, I destroy it... an iron shovel, I cut it off; a water-wheel, I destroy it; a garden, I destroy it..." I adjure you ... go to NN son of NN, bring... a cutting-off and a scattering... to him. Yea, yea, quickly, quickly!". 1049 Dosoo argues that this text is considered an example of the ingenuity of Coptic magic in drawing on a Jewish tradition at least a thousand years older than the text itself, which turns a practice intended to cure disease into an evil curse against the source of income of the victim. But the reason for the use of these Jewish elements in the various Christian magical artifacts is unclear, as there is no indication of the motive of the practitioners to use these elements in their writings. This proves that both the Christian magical composers and clients might not have been mindful of or agreed with the Jewish practices that underpinned their behaviour. 1050 In fact, textual details indicating the Greek covenant of Solomon, as we see it today, were composed by a Christian. Orthodox Christians claim that the Hebrew Bible is their Old Testament, and they see themselves as an alternative to the Jewish people as "the true Israel". For Christians, Solomon's reign – in its standard and non-standard version – has become part of their history." ¹⁰⁵¹

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¹⁰⁴⁶ https://www.coptic-magic.phil.uni-wuerzburg.de/index.php/2019/03/08/religion-in-the-coptic-magical-papyri-viii-judaism-and-coptic-magic/

¹⁰⁴⁷ The power of Solomon over his demons found completely in the Greek Testament of Solomon, dates back to the 4th cent. CE, the testament tells the story of Solomon using a magical ring to exorcise a demon who was tormenting a young child, and then convincing a series of demons to come before him and confess their sins and shortcomings before ordering them to construct the temple of Jerusalem. The dialogues act as brief magical recipes, showing the demons responsible for specific diseases and the amulet or spell required to cast them out and cure the diseases they cause: "Then I, Solomon, invoked the name of the Lord Sabaōth, and questioned each (demon) in turn as to what was its character. ... The twenty-eighth [decan, a type of star-demon] said: "I am called Harpax ("robber"), and I send sleeplessness on men. If one writes 'Kokphnedismos,' and binds it round the temples, I at once retreat." *Testament of Solomon 73*, 98. https://www.coptic-magic.phil.uni-wuerzburg.de/index.php/2019/03/08/religion-in-the-coptic-magical-papyri-viii-judaism-and-coptic-magic/

^{1048 &}quot;KYP M312", Kyprianos Database of Ancient Ritual Texts and Objects, www.coptic-magic.phil.uni-wuerzburg.de/index.php/manuscript/kyp-m312. Accessed on 05/05/2021.

¹⁰⁴⁹ [https://www.coptic-magic.phil.uni-wuerzburg.de/index.php/2019/03/08/religion-in-the-coptic-magical-papyri-viii-judaism-and-coptic-magic/], (last accessed: 05.05.2021).

¹⁰⁵⁰ Boustan and Sanzo 2017: 238.

^{1051 [}https://www.coptic-magic.phil.uni-wuerzburg.de/index.php/2019/03/08/religion-in-the-coptic-magical-papyri-viii-judaism-and-coptic-magic/], (last accessed: 05.05.2021).

The same tradition of invoking the power of Solomon over his demons is found in the magical-medical text P.Köln XV 641, which contains a recipe invoking King Solomon and his demon for the purpose of healing: "For a man who swells: The King Solomon said to his demon: "What is the remedy for this?" [...]." 1052

The religious influence is also found in the medical recipes that contain Christian phrases calling on the aid of God's power such as Φαγλο εν τόσμ νόμιος "He will heal by the power of God" (Ch 171); 1053 αναλο εν τόσμ νίπασιες "He will recover by the power of the Lord" (Ch 156); 1054 α φρ πετσοούν ας νανούς πιπαρρέ ενατε "God knows how this remedy is very good!" (Ch 157); 1055 and beginning the recipe by mentioning the name of God (ξήπραν επνούτε): "In the name of God" (P.Ryl.Copt. 106). 1056 Also, among the pure medical prescription, there are invocation to Iaô, Iaô (P.Sarga 20). 1057 Even the medical texts contain Biblical quotations such as (Psalm 150, 1).

Magic in the Post-pharaonic Egypt was usually used for various purposes such as healing, protection, power, sexual problems, work and love. In the case of healing, the aim of using magical spells, names, and words treated different pains and sufferings in comparison with medical texts that treated, for example, insomnia, chill, headache, possession, malignant disease, and shivering. Nonmedical treatment of non-demonic or natural illness comprised a number of therapeutic methods: prayer, crossing oneself, placing hands, and the application of blessed substances (oil or water). The categories of the ritual healing texts categories conform to three main types: Ritual manuals, amulets, and prayers which will be discussed in the following sections.

6.3 RITUAL MANUALS

Owing to the lack, and high cost, of writing materials in late antique Egypt, extensive manual was a rare achievement; however, ACM, 90, no. 44, 1059 and P.Mich. MS 136^{1060} are examples of ritual manuals that contain almost entirely healing spells, medical recipes and amulets. 1061 Some of these material pieces would have constituted a handbook or *grimoire* 1062 used for a different purposes such as ACM, 263, no.

¹⁰⁵⁴ (see 5.17.4).

¹⁰⁵² English translation from the German Schenke 2017: 260.

¹⁰⁵³ (see 5.12.4).

¹⁰⁵⁵ (see 5.4.1).

¹⁰⁵⁶ (see 5.17.6).

^{1057 (}see 5.8.6)

¹⁰⁵⁸ Meyer and Smith 1994: 81.

¹⁰⁵⁹ Paper, 9.5 x 9 cm, dates back to the 11th or 12th cent. CE. Bibliography: Stegemann 1934: 79–82; Meyer and Smith1994: 90–91.

¹⁰⁶⁰ Worrell 1935: 17–37, no. 4. (see 2.1.1).

¹⁰⁶¹ Meyer and Smith 1994: 81.

¹⁰⁶² Grimoire is a technical term meaning a magic incantation or spell book, which was considered a tool used to carry out magical tasks. Davies 2009: 1.

127¹⁰⁶³ which is composed of multiple leather pieces, along with the Thebes papyrus *ACM*, 270, no. 128.¹⁰⁶⁴ These *grimoires* contain various series of spells and remedies identical to those in Egyptian temples, such as the Temple of Horus at Edfu, as its library (140–124 BC) contains inscriptions on its walls mentioning the books of the library, among them: "Book of the plan of the temple; Book of the protection of the body; spells for the averting of the evil eye". ¹⁰⁶⁵ These handbooks were considered an important component of Egyptian culture and temple libraries, and this tradition has continued in later periods. In the fourth century Egyptian countryside, the importance and usefulness of such ritual books became apparent "when a village realised its holy images were shortly to fall into the hands of abbot Shenoute and his monastic gang: "the villagers went and dug in the place that led to the village and buried some magical potions that they had made according to their books because they wanted to hinder him on the road"". ¹⁰⁶⁶

ACM, 263, no. 127 points to the Eucharist, symbols of the Holy Trinity, and calls the watchers. The task of these invoked powers is to achieve a person's demands. They convey a woman to a man (II. 12–19), give edification of the riddles (II. 38–49, I. 50–57), treat the illness (II. 57–73), oust an individual from a house (II. 76–78), to obtain approval (II. 78–79), provoke the destruction of a residence (I. 79–80), cause disturbance (I. 80–82) cause enmity among individuals (II. 82–85) or even the disintegration (II. 85–86), cause the assignment of a business (II. 86–89), furthermore, curse the phallus of a man (II. 109–18). It recalls the Prophet Elijah in a *historiola*, who crosses the Jordan River on dry ground, and contains the incipit of LXX Psalm 69:1 preceded by 2N TICYALMO "in the Psalm" ¹⁰⁶⁷ (see table 6). ¹⁰⁶⁸

ACM, 270, no. 128 contains different spells and prescriptions. The document starts with the Trinitarian formula (II. 11–12) along with an extended invocation of divine power, angelic names to be recited three times, powerful utterances and *voces magicae* to be recited seven times (Ablanatha, Abra, Akramachamario, Sesanke Barpharakes, Semsemlam, and Tameamnoues). These recipes were used to treat different diseases including some sort of eye disease (II. 31–34), to be granted a favour (II. 28–29) (II. 38–40), to bring debility to a strong person (II. 40–45) or cause a disturbance and cause someone to go astray (II. 62–64), to reinforce or ruin a foundation (II. 47–51), to find or secure assets or even hidden treasures (II. 52–61), and to facilitate pregnancy for a woman (II. 67–69). Many recipes name an

¹⁰⁶³ Leather, 19 x 64.5 cm, dates back to the 6th or 7th cent. CE. Bibliography: Kropp 1930: 1.55–62 (transcription); 2.40–53; Meyer and Smith 1994: 263–269.

¹⁰⁶⁴ Papyrus, 113 x 32.5 cm, dates back to the 6–7th cent. CE, originating in Thebes. Presented in a jar from a cell of a monk, which may have been a part of Deir Bekheeta. Bibliography: Kropp 1930: 1.50–54 (transcription); 2.31–40 (translation); Meyer and Smith 1994: 270–273 (translation).

¹⁰⁶⁵ Fowden 1993: 57.

¹⁰⁶⁶ Meyer and Smith 1994: 260 (Life of Shenoute 83, translated by David Bell).

¹⁰⁶⁷ Sanzo 2014: 138. It is identified as (Psalm 70:1) in Meyer and Smith 1994: 263.

¹⁰⁶⁸ Meyer and Smith 1994: 263.

appropriate day, or the exact day (sometimes a specific time during the day) for when is suitable to achieve the purpose of the ritual. 1069

Multari¹⁰⁷⁰ notes that in *ACM*, 263, no. 127 at l. 80; Papyrus P.Mich. MS 136, starting from l. 135 until the end, and papyrus *ACM*, 270, no. 128 from lines 31–34, the magician depends on vegetable elements to achieve the purpose of the spells. This act reflects that the magician was aware of the importance and power of plants in performing the spell. However, the plants specifically gained this power at the harvest, after performing some rites by the magician.

6.4 AMULETS

Amulets were used in different life situations such as for protection, to drive out demons, to protect a house, or to gain power or wealth. Hence, it is not surprising that they were also used to cure medical complaints that could have been cause by daemonic influences. The usual word used for an amulet is the Greek term $\phi \nu \lambda \alpha \chi \tau \acute{\eta} \rho \nu \nu$, which means "protection". An amulet possesses the power ascribed to it to protect its owner from danger or harm (e.g., snake bites, ¹⁰⁷¹ the fever, ¹⁰⁷² the stomach pain and headache, ¹⁰⁷³ or the evil eye, or from every illness in general). ¹⁰⁷⁴ Sometimes it is recited or worn, with a magical design, usually in combination with magical names. ¹⁰⁷⁵

According to ancient Egyptian views, even the gods could not dispense with the protection of amulets. For example, when Isis was pregnant, she wore on the 6th Paophi an amulet signifying the voice of truth. Such ancient notions refer to the ancient Gnostic prayer as "I implore you, along with your names and your powers and your amulets (φυλαχτήριον) and your pictures". The Coptic texts are building on these ideas when speaking of the amulet of the Father, of the *Sphragis* on his lap, when it calls the name written on the breast of the father φυλαχτήρια". Also on the breast of Mary such a seal is drawn "..... my mother is Mary. The breast....., the breast from which our Lord Jesus Christ drank. In the name of the seal that is imprinted on Mary the Virgin's heart" (P.Ryl. Copt. 103). 1078

The amulet could be in the shape of divine symbols like a cross, or in holy writings, miniature icons or even items such as the oil from the lamp above a saint's tomb. All such items could function as an

¹⁰⁶⁹ Meyer and Smith 1994: 270; De Bruyn 2017: 84.

¹⁰⁷⁰ Multari 2015: 85.

¹⁰⁷¹ Vienna, Nationalbibliothek K 08635 Pap. Stegemann 1934: 21; 43–44 (no. 95).

¹⁰⁷² ACM, 98, no. 51, ACM, 100, no. 53, ACM, 101, no. 54, British Library MS Or 6948 (2), Vienna, Nationalbibliothek K 08637
Pap and P.Köln 425.

¹⁰⁷³ Michigan 136, ll. 124–134.

¹⁰⁷⁴ Vienna, Nationalbibliothek K 08635 Pap. Stegemann 1934: 21; 43–44 (no. 95).

¹⁰⁷⁵ Quecke1963: 249.

¹⁰⁷⁶ ACM, 326, no. 135.

¹⁰⁷⁷ Kropp 1930: 3. 178–79.

¹⁰⁷⁸ For the Coptic text and translation see (6.5.3) p. 290.

amulet. ¹⁰⁷⁹ Amulets gained their power from their content (letters, symbols, and characters) and transferred it to the person who wore or carried them. *ACM*, 101, no. 55, ¹⁰⁸⁰ recalls the name of the Three Wise Men (Melchior, Tthattasia, and Fathisora); or even the spell with ritual invocations such as *ACM*, 97, no. 50¹⁰⁸¹ that contains invocation to the Four Living Creatures (AKRAMMATA PERITON SOURITHION PARAMERAO), and ROBIEL THRIECHS, Apabathuel and Mamarioth. Furthermore, *ACM*, 101, no. 54¹⁰⁸² considered an eminent composition of both principles, begs and implores the amulet itself, as an object able to withstand great force: "BABOUCHA... AKRAMA[CHA]MARI ABLANATHANA[LBA] ... RANKME DOME DOM DO D, ALPHA LEON PHONE ANER, AEEIOUO, Michael, Gabriel, Raphael, Suriel, Zarathiel, Zedekiel, Anneal, Yoel, Tsel, AEEIOUO: I beg and I invoke you". ¹⁰⁸³

женιογω	ωγоιнєδ
аєніоү	оооооо шүоін є
à € H 1 O	ωγоιн
à € H 1	ωγοι
λ € Η	ωγο
λ €	ωγ
λ	ω_{1088}

¹⁰⁷⁹ Foskolou 2014: 330.

¹⁰⁸⁰ Parássoglou 1974: 107–110; Meyer and Smith 1994: 101–102.

¹⁰⁸¹ Stegemann 1934: 38–40.

¹⁰⁸² Quecke 1963: 247–265; Meyer and Smith 1994: 101.

¹⁰⁸³ Meyer and Smith 1994: 81. (see 6.6.5).

¹⁰⁸⁴ Meyer and Smith 1994: 389. "These stand around and bear or draw the throne of god in Revelation, with the faces of a lion, an ox, a man, and an eagle. Sometimes they are named Paramara, Zorothion, Periton, and Akramata; sometimes they are called Alpha, Leon, Phone, and Aner".

¹⁰⁸⁵ This amulet published by Hasitzka and Satzinger as "Schutzamulett", without mentioning the illnesses stated in the text, and supposed to be cured by using this amulet. Paper, 15.8 x 6.8 cm, dates to 9th-10th cent. CE, bought in Luxor. Hasitzka and Satzinger 2004: 48–49; Van der Vliet 2005: 141–145.

¹⁰⁸⁶ The vowels sequence is a type of *voces magicae* that have an auditory effect, and its magic power lies in its sounding that affects the client, ince each letter is connected to a plant, musical melody, or angel, the influence increases. Brashear 1995: 3431

¹⁰⁸⁷ The schematic form of writing words is a type of visual effect, the usual schematic form in the medical amulet is the πτερυγοειδώς "wing-shape". Brashear 1995 3433.

¹⁰⁸⁸ P.Mich. MS 136, Il. 126–132. Worrell 1935: 17–37; Meyer and Smith 1994: 38–90.

After that, come the incantations, which usually direct one or several particular powers, for the purpose of healing and protection from illness and evils. The usual invocation structure is † παρακαλει μικοκ/ μικοτιν ... "I invoke you", which is followed by the invoked the names and powers by using the Coptic word σον or the Greek δύναμις. These powers may be called the angels and archangels.

Furthermore, many incantations were influenced by apocryphal literature, such as ACM, 100, no. 53^{1089} and P.Heid. Inv. Kopt. 407^{1090} both of them an amulet against fever, which refer to the fate of the three youths of the book of Daniel ch 3 to prevent the fiery fevers:

ACM, 100, no. 53

ананіас [а*]аріас нісана се*рак енісак авденаго балал ен*лал в к (2?) †т]алка [н]атенн[не тенлен не н[ет] енбан нө[н] нтатне офен нк[ан]нос нк[хо]н нав [ходо но сор [ет]ретнео фе нег ніві нен [] ніві нен обев ніві [н]ен аск ні[ві] ебе фона нпатрі коу піхн ні]акоу піхн є сон ін адан ала тахн *ахн

Ananias [As]arias Misael, Se[d]rak Misak Abdenago, Thalal M[ou]lal B[...: I] adjure you by your names and your powers, that as you quenched the fiery furnace(s) of Nebuchadnezzar, you may extinguish [every fever] and every [...] and every chill and every malady that is in the body of Patrikou child of [...]akou, child of Zoe, child of Adam Yea! Yea! Quickly, Quickly! 1091

The invocation of the three Hebrews Ananias, Asarias, Misael and their Babylonian names, Shadrach, Meshach, and Abednego, is common in the amulets against fever. The three Hebrew men were thrown into a furnace by the Babylonian king Nebuchadnezzar because they refused to worship his god; however, they escaped and survived due to the intervention of God. Their salvation was considered powerful against fire and heat, thus many amulets against fever open with the names of the three Hebrews. ¹⁰⁹²

¹⁰⁸⁹ Parchment, 10.2 x 6.3 cm. Bibliography: Quecke 1963: 255 (transcription); Meyer and Smith 1994: 100 (translation).

¹⁰⁹⁰ Mihálykó 2019: 44.

¹⁰⁹¹ Translation: Meyer and Smith 1994: 100 with slight modifications.

¹⁰⁹² Mihálykó 2019: 54.

DOD, ALPHA LEON PHONE ANER, AEĒIOUŌ, Michael, Gabriel, Raphael, Suriel, Zarathiel, Zedekiel, Anneal, Yoel, Tsel, AEĒIOUŌ". In addition, P. Macq. I 1, p. 16, ll. 5–9¹⁰⁹³ an amulet against every sickness and for possessed person mentions αλώνε. ελώε. Cabaωθ. ενπικεογά. Ϣατεβι εαλφά. αρχαχαμάρπα. χαεβιμλ. ιμα χρα "ADŌNE ELŌE SABAŌTH on the other one, so that he comes to (?) ALPHA ARCHACHAMARPA CHAEBIĒL JESUS CHRIS"

As a rule, amulets indicate the name of the client or practitioner to be mentioned when a spell is recited. The specific names of the persons usually written in the space marked as $\Delta\Delta$, dd ($\delta\epsilon$ îva $\delta\epsilon$ îvoc), 1094 or nim the specific names of the persons usually written in the space marked as $\Delta\Delta$, dd ($\delta\epsilon$ îva $\delta\epsilon$ îvoc), 1094 or nim the specific name instead amulets. 1095 These texts, as customary in Egyptian and Islamic magic mention the specific person by his or her mother's name instead of the father's name, such as Poulpehepus, the son of Zarra; Phoibammon, the son of Maria; Ahmed, the son of Mariam; and Kiraheu the daughter of Maria. At the end of the spell we can find these usual closing formulae:

- the use of the interjection of entreaty alo alo, alo, alo, alo, alo, alo, alo "come" in combination with the adverb ταχη "quickly, quickly!"; 1096
- TIETTI "Immediately, Immediately!";
- a ε μ ϊ ο γ ω: the seven vowels are common in magical texts and were identified with the seven planets and hence with the creator: they were regarded as a mystical name of God;
- Invoking the heavenly powers.
- The seven pentagrams .1097

6.4.1 QUOTATIONS IN THE COPTIC HEALING AMULETS

The quotations in the Coptic healing amulets can be divided into two types: firstly, the apocryphal stories, and Homeric verses. Such as P.Mich. MS 136, Il. 42–52, 1098 employs (Iliad 3, 33–35) for healing chill and sight of snake. And *ACM*, 263, no. 127, that contains the non-canonical incipit (The letter of our lord Jesus Christ to Abgar; Letter of Abgar to Jesus). Jesus' letter to Abgar was believed to have a defensive power that can bring healing to the sick person. 1099 Since the topic of the correspondence is healing, Jesus'

¹⁰⁹³ P. Macq. I 1, parchment codex composed of 20 pages, 12.7 x 11 cm, dates back to ca. the 7th–8th cent. CE; metadata at Trismegistos [https://www.trismegistos.org/tm/detail.php?tm=113926], (last accessed: 05.10.2020). Choat and Gardner 2013.

¹⁰⁹⁴ P.Mich. MS 136.

¹⁰⁹⁵ Vienna, Nationalbibliothek K 08635 Pap.

¹⁰⁹⁶ Crum 1939: 363b. Arabic "الوحا الوحا العجل العجل العجل."

¹⁰⁹⁷ ACM, 100, no. 53.

¹⁰⁹⁸ For the Coptic text and translation see (6.2).

¹⁰⁹⁹ Frankfurter 2018: 199–200.

reaction to Abgar was commonly used as an amulet in antiquity. It was usually employed as healing power in many occasions. It has been reported that, in the 5th century, a devoted follower of Daniel the Stylite, who stayed on top of a column on the edge of Constantinople, each time a member of his household was ill, demanded a written prayer from Daniel by letter, then put the reply on the sufferer and thus received healing after the efficiency of Jesus' Letter to King Abgar, who (the follower) described it as "as if the miracle had been from the hand of Christ itself". ¹¹⁰⁰

Secondly, the Canonical Biblical passages. Often these do not indicate to a specific type of healing desired but may serve a general purpose of motives, such as *ACM*, 314, no. 134, ¹¹⁰¹ which is a book of ritual power that contains an amulet, and expresses the idea of protection by uses biblical texts, this amulet contains a verse of Psalm. 90, 1–2. In some instances, the two types of quotations are juxtaposed one with another in the same text (See below Table 6). ¹¹⁰² I have observed that the citation of Psalm 90, in Coptic healing amulets is limited to the first two verses, as in *ACM*, 314, no. 134:

ACM, 314, no. 134

 $\bar{\bf q}$ песмоу йдшдн йдауеїд петоунга твоноїх йпетхосе. $\bar{\bf q}$ ихишпе га охівєє йпиоуте йтпе 1103 $\bar{\bf q}$ иххоос епхоєїс же итек паречщопт єєрок ауш паманішт

Praise of the hymns of David: the one who dwells in the help of the exalted. He will be in the shadow of the god of the heaven. He will say to the lord: you are my guardian and my refuge. 1104

Biblical quotations played an important role in Coptic texts, and the use of Psalms in amulets was a frequent phenomenon in late antique Egypt, as they were believed to have protective power.¹¹⁰⁵ I have observed that healing amulets include specific Biblical quotations, especially parts of Psalms and the Gospels. In order to understand the importance of these quotations I will provide analysis of each quotation.

¹¹⁰⁰ For more examples see Rapp 2007: 215.

^{1101 (}P. Anastasi 9), Papyrus consists of sixteen pages. It contains an exorcism prayer of Saint Gregory, and Biblical qoutations (Psalm 90, and Gospels). Bibliography: Pleyte and Boeser 1897: 441–479 (transcription); Drioton 1915–17: 311–26 (only the letter of Jesus to Abgar); Kropp 1930–31: 2.72–79, 81–85, 161–75, 220–21 (translation); 3.210; Geerard 1992: 67, no. 88.1; Meyer and Smith 1994: 314–322 (translation); Pernigotti 2000: 67–69, no. 37; no. 38. Mirecki 2001: 150, no. 12.

¹¹⁰² Another Coptic amulet P. Heid. Kopt. 184, cited a part from Psalm 90:11–16. See Quecke 1979: 332–337.

^{1103 ...} же петоүннг гл твоноїх мпетжосе чладюще гатгаївес мплоуте лтпе ... (Psalm 90.1). [https://coptdb.uni-goettingen.de/citdb/quotation/389/] (last accessed: 02.01.2021).

¹¹⁰⁴ Translation: Meyer and Smith 1994: 322. with slight modifications.

¹¹⁰⁵ Sanzo 2014: 40.

In the ritual texts, the most-widespread psalmic incipits in the ritual texts in Late antique Egypt is LXX Psalm 90, 1106 which is based on God's promise to protect those who turn to him in need. The reading of Psalm 90 reveals divine protection: verse 1 is about the shelter offered by the Lord, verse 2–3 contain a prayer to the God asking for protection from various evils; and in verses 4–8, the reader gets a pledge of protection and victory over his enemies. Verses 9–13 contains repeating God's promise to protect. In verses 14–19, God speaks and provides a promise to secure the person who invoked him "(14) Because in me he hoped, I will also rescue him; I will protect him, because he knew my name. (15) He will call to me, and I will listen to him; I am with him in trouble; If will deliver and glorify him. (16) With length of days I will satisfy him and show him my deliverance". 1107

In addition, *ACM*, 101, no. 55,¹¹⁰⁸ an amulet used for protection from snakebite, contains part of Psalm 119: "Your word, lord, is the lamp of my feet, and it is the light of my path" (Psalm 119: 105). This part of Psalm 119: 105 implies the mythical significance of Jesus's rebuke to snakes as God's Word, as well as the wearer of this amulet's receptivity of its blessings. ¹¹⁰⁹ Parássoglou argues that this verse was perhaps used to mean that the Lord's name is like a lamp, would expose any serpents hiding in the way of the amulet bearer, and keep him away from them. So, the author of the amulet employed a specific part of the Psalm which is in line with the desired purpose.

ACM, 101, no. 55

 \uparrow таухпо йпехс соухоут үїс йхаїарк. Ачен вацар впеснт вхй пкар. ачепітіне инхаттве ини речивжнатоу. Привес наоубрите пе пекф \dot{A} же 1111 пховїс ауф поуовін пе тарін.

Christ was born on the twenty ninth of Choiak. He came down upon the earth. He passed judgement on all the poisonous reptile. Your word, O LORD, is the lamp of my feet; and it is the light of my path. He

1107 Sanzo 2014: 41.

¹¹⁰⁶ Sanzo 2014: 41.

¹¹⁰⁸ Parássoglou 1974: 107–110; Meyer and Smith 1994: 101–102.

¹¹⁰⁹ Frankfurter 2017: 99.

¹¹¹⁰ Parássoglou 1974: 110.

¹¹¹¹ It appears that it is a typing error and it should be read (Qaxe).

¹¹¹² Twenty-ninth of Choiak the "Christmas date" according to the old Julian calendar is the twenty-fifth December. This date (Twenty-ninth of Choiak) appears also in a ritual spell (ACM, 119, no. 63) dates to the 8th-9th cent CE, for purpose of protection.

Parássoglou translates it "serpent", I argue that the spell dedicates against all poisonous reptiles which is serpent one of them as the text mentions the word "xattbe" for "xatte", cf. Crum 1939: 792b.

¹¹¹⁴ Parássoglou 1974: 109 with slight modifications.

Moreover, the amulets contain a direct invocation to Jesus Christ, such as the above mentioned *ACM*, 101, no. 55, which invokes the Christ birthday, the crucial juncture in Christian history to keep the wearer protected from venomous reptiles. Another amulet Vienna, Nationalbibliothek K 08635 Pap, which invokes Jesus two times "in the name of your powers, and your names", and calls him "Jesus the Lord", in order to grant healing to Mina, the son of Euprepi and Zoe healing. The amulet ends with eq=99 'Amen':

Vienna, Nationalbibliothek K 08635 Pap



 ξ енпран итетенбом не тетенран ий нетниаміс ететенті пталхо німпојен етеніна поје неупрепі појенсону тахн тахн тісті тістті тахн ξ енпран итетен тниаміс ий нетен бом їс х ζ с тіпталхо тахн тахн ξ офне нім лоблеб нім лау нбін фоне нім тіпталбо тахн тахн х ξ с пех ζ о ξ амни ξ оф

In the name of your power (?), your names, and the powers, you will give the healing (to) <so-and-so> the son of <so-and-so>, who is Mina, the son of Euprepi, the son of Zoe, quickly, quickly! Immediately, immediately! Quickly! In the name of your powers and your powers, Jesus Christ, give healing, quickly, quickly! Every illness, every sickness, any type of every illness. Give healing, quickly, quickly! Jesus the Lord. Amen, Amen! 1117

Quoting Scripture in the magical texts is an evidences of the influence of religion on magic, hence the healing and protection amulets employed specific quotations from the Bible which was somehow related

¹¹¹⁵ Coptic Magical Papyri [https://www.coptic-magic.phil.uni-wuerzburg.de/index.php/2019/01/07/a-coptic-magical-christmas/], (last accessed: 01.04.2021).

¹¹¹⁶ Parchment, 30.5 x 4.5 cm, dates to the 5th cent. CE. Stegemann 1934: 21; 43–44 (no. 95).

¹¹¹⁷ English translation, adapted from the German translation Stegmann 1934: 44.

to the type of disease, and it is worth noting that these quotations were present alongside "non-canonical" texts, and magical elements. For example, the Biblical quotations were confined to Psalms, the titles of the Gospels and narratives.

The incipits of the four Gospels comprise the most common type of scriptural quotation in medicomagical texts. I have noted that only the beginnings of the Gospels were cited for the purpose of healing: 1118 a type of citation known by scholars as pars pro toto ("part for whole"), which was common in amulets in Late Antiquity. 1119 The Gospels were used as a source of power as they are based on specific canonical or non-canonical narratives from the life of Jesus. 1120

Sanzo argues that the Psalms played an important role in late antique Egypt, and were used in various proceedings and occasions. Even in monastic life, prospective monks were acquired to memorise Psalms in order to prove themselves. One of Pachomius's writings stated that: "If someone arrives at the doors to the monastery wishing to renounce the world and be accepted as a monk, he is not immediately free to enter. The father of the monastery has to be informed first. The applicant remains outside, in front of the door for a number of days; he is taught the Lord's Prayer and as many psalms as he can learn and has to diligently prove Himself".

British Library MS Or 6948(2), 1121 an amulet against fever 1122 uses the Biblical story of the healing of the Peter's Mother-in-Law, and one of Jesus's miracles reported in the synoptic Gospels: Mark 1:29–31, Luke 4:38-39, and Matthew 8:14-17. In such passages there is an internal connection between the narrative and the expected effect: 1123

British Library MS Or 6948 (2)

СІМОЙ ПЕТРОС АВСІМІ ТЕВОЈОМІ ЕСЗНИ ЕСОЈТНОЎТ ЕСЕНКАТ МЕЖЕ СІМОЙ ПЕТРОС ДЕПАДАІНС ІНС ПЕХРС ФАНАТНК РАГАРВНАНА ДН НХАРА ДН НДОН

¹¹¹⁸ A Greek healing spell (P.Oxy, VIII 1077) refers to the Gospel of Matthew and names it "Curative Gospel according to Matthew". Meyer and Smith 1994: 33.

¹¹¹⁹ Sanzo 2014: 176. Sanzo also provided a list with 14 Greek and Coptic examples of the four gospels incipits in the amulets.

¹¹²⁰ Sanzo 2014: 34.

¹¹²¹ Parchment, 11.5 x 7.5 cm. Bibliography: Lexa 1925: 167 (no. 12) (translation); Crum 1922: 542–543, (no. 3) (transcription and translation); Kropp 1930: 2. 62–63 (translation); Pernigotti 1995: 3728–3729 (no. 42) (translation).

¹¹²² ACM, 32, no. 7 the amulet (Greek) mentioned above in no. 852, cites a part from the Gospel of Matthew (Matthew 4:23–24), for healing purposes: "Curative Gospel according to Matthew. And Jesus went about all of Galilee, teaching and preaching the gospel of the kingdom, and healing every disease {and every disease} and every infirmity among the people. And his fame spread into all of Syria, and they brought him those who were ill, and Jesus healed them." Also, ACM, 34, no. 9 employs a Gospel quotation for the purpose of protection (John 1:1, Matthew 1:1; 4:23, Luke 1:1, Mark 1:1). Meyer and Smith 1994: 32.

Matthew 8:14-17: "When Jesus came into Peter's house, he saw his wife's mother lying sick with a fever. He touched her hand, and the fever left her. She got up and served him. When evening came, they brought to him many possessed. He cast out the spirits with a word, and healed all who were sick; that it might be fulfilled which was spoken through Isaiah the prophet, saying: He took our infirmities, and bore our diseases". Coptic scriptorium [http://data.copticscriptorium.org/texts/newtestament/40_matthew_8/], (last accessed: 02.08.2021).

ві меу перемам пантікіменос равах мас рентоуноу етмеу авамері тесбіб ніоунни авкеєс ріженперемам асоужеї астаас асоужеї ас†іаконі ехау есоуаб

The lord Jesus came walking with his most holy Apostles, he went into the house of Simon Peter. He found his mother-in-law feverish, laying down, and sleeping. Then Simon Peter said: My Lord Jesus Christ, have a mercy on Garbêlêa, daughter of Chara, daughter of Zoe, take this fever of the adversary from her. Immediately he took her right hand (and) put it on the fever (and) she became healthy and stood up, became healthy (and) served them, being healthy. 1124

¹¹²⁴ Translation: Crum 1922: 543 with slight modifications.

Table 5. Citations in the magico-medical texts

	Quotation	Text	Purpose
Non-canonical citations	Iliad 3, 33–35	P.Mich. MS 136, Il. 42–52	For healing chill and sight of snake
	The letter of our lord Jesus Christ to Abgar.	ACM, 263, no. 127	General healing and protection from various diseases
	2 Kings 2:8	<i>ACM</i> , 263, no. 127, vo, ll. 61–65	For a discharge or a flow of blood
Scripture quotations	Psalm 90	ACM, 314, no. 134	General healing and protection from various diseases
	Psalm 119:105 ¹¹²⁵	ACM, 101, no. 55	For protection from snakebite

¹¹²⁵ Meyer and Smith 1995: 102.

	LXX Psalm 69:1 ¹¹²⁶	ACM, 263, no. 127	Every sickness
	Psalm 150, 1	SBKopt. I 001 ¹¹²⁷	Wounded and injured head. (?)
	Gospels incipits	P.Ryl.Copt. 104, Sect. 6	For general protection
Gospels citations	Gospels incipits	ACM, 314, no. 134	General healing and protection from against various diseases
	The healing of the Petre's mother-in-law	British Library MS Or 6948 (2)	To treat fever

¹¹²⁶ In this text it is proceeded by "ยุน เก†ฉฉพอ". Sanzo 2014: 120. 1127 Medical text, for the information on the text, see (2.1.4).

6.4.2 AMULET DRAWINGS

Some amulets contained one or more figures beside the written text. An extraordinary figure found on the left of the text *ACM*, 120, no. 64,¹¹²⁸ is a geometrical drawing, representing an individual, holding a light scepter in the right hand and a light weapon in the left. The bar is decorated with a cross on the top surrounded by ornamental hooks. Such rays also surround the circular object in the left hand, which is designed as a weapon and can perhaps be interpreted as a shield. However, it looks more like a wreath. The figure is supposed to represent an angel, presumably the archangel Michael. The most characteristic feature of this drawing is the two snakes, which wind around the neck from the head to the neck.¹¹²⁹

The amulet spell invokes Yao Sabbaoth to appear on the illustrated figure accompanying the text, to protect a woman named Sur. She will be protected by carrying it during her current pregnancy:

ACM, 120, no. 64

ІЗО САВВАФО АТФИЛІ ЄЗФЕІ ЄЗЕНАС МІКЗАНОНР / АВРАСАКЗ МІХАНА ГАВРІНА ЗРАФАНА СОУРІНА ЗРАГОУНА АСОУНА // САРАФОУНА ІЗО АТФИЛІ ЄЗФЕІ ЄЗЕНАС САВАФО ТІТАХКА / МАТЕН НЕТЕНТОЗАМ ЄТОУДАВ ЗАЄІ АЗЄЗ ЄПЕСЦА ИСЕ ПСФИЛА МИ / ТЕПТУХН МИ ПЕПИЕОУНА МІМ ТЖНАІ МІМ ТАС АЗА ПЕССЦИХІ ЄСННТ / МАЧ КАЙ ОУЗЛОТ ПЕ КАЙ ОУСІМІ ТЕ СІТІ ЗАВАХ МАОУ НАРАФ МІМ МИ / ЗНИЇ МІВІ МИ ФТАЗТЕЗ МІВІ МИ АВЕРСЕЗІА МІВІ МИ МИРА МІВІ // МИ ЄЙОНР МІВІ МИ АПАЗАЧ МІВІ МИ ЄКЗОУСІА МІВІ ТЕ ПЕКЕКІ / МИ ТЕМОМІОМ МІВІ МИ < > СЕТОУ ЗАВАХ МАС ТАС АЗА ПЕССЦИТИ / МАЧ СЕТОУ ЗАВАХ ЕЙЕОУНАЙОФПІ ТНРОЎ МИ ЗАВАХ МЕ МІВІ ФАСПОТ / ЄЗАОЎ ЗЕМОЎТАХНІ МИ ОЎОЄПН АІА АІА ЄТІ ЄТІ ТАХН ТАХН / СОЎРА ТЖНХІ ПЕЗОВ //

"Yao Sabbaoth Atonai Eloei Elemas Miksanther Abrasakks Michael Gabriel Raphael Suriel Raguel Asuel Saraphuel Yao Atonai Eloei Elemas Sabaoth, I adjure you by your holy powers. Watch and protect the four sides of the body and the soul and the spirit of N. daughter of N., her and the child with whom she is pregnant, whether it is a male or a female. Cast forth from them every chill and every fever and every trembling and every

¹¹²⁸ Parchment, 14 3/4 x 9 cm. Bibliography: Kropp 1930: 1.15–21; 2.199–207; Meyer and Smith 1994: 120; Crum 1905: 253–55.

¹¹²⁹ Kropp 1930: 3. 211.

Aberselia, and every doom, every devil, and every Apalaf, and very power of darkness and every demon, and < ... >. Cast them forth from her, her and the child with whom she is pregnant. Cast them forth from all her dwellings and from every place to which she moves, immediately and quickly!" 1130

¹¹³⁰ Translation: Meyer and Smith 1994: 122.

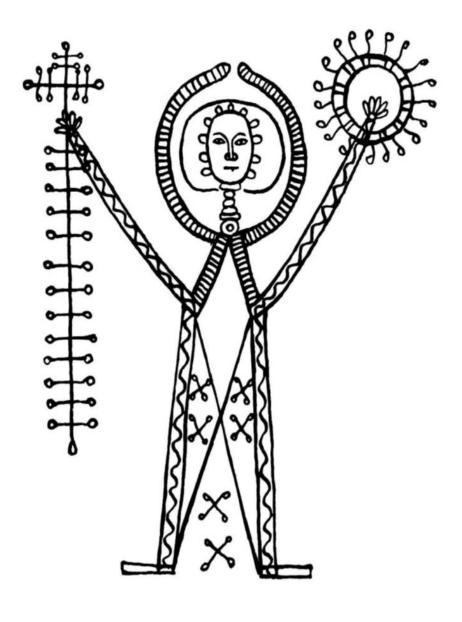


Figure 11. Yao Sabbaoth

(After Meyer and Smith 1994: 121)

A "cookbook" from Thebes (*ACM*, 270, no. 128) contains healing spells for various diseases such as certain eye diseases (II. 31–34); and to help a woman become pregnant (II. 67–69). The text calls upon Abraxas, and in the end there is a drawing of two chickens as a magic wand. The larger bears the monogram of Jesus and the smaller one has no inscription; however, the prolonged tail points to the Sabaoth star. Kropp¹¹³¹ argues that since the head of a cock is a well-known representation of Abraxas, this papyrus could really be implying the equation of Abraxas-Sabaoth on the one hand and Abraxas-Jesus on the other hand. It is also well known that Jao is a name of Jesus according to the syncretic faith. Therefore, an equation of Jesus-Abraxas instead of Jao-Abraxas would not be strange.

¹¹³¹ Kropp 1930: 3.17–18.



Figure 12. Drawing of a cock: 1c xc "Jesus Christ" (After Kropp 1930:1. 54)

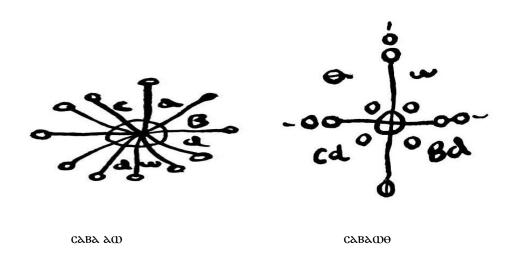


Figure 13. SABAOTH SABA AO written within the ring signs (After Kropp 1930:1. 54)

6.5 THE PRAYER

The prayer formula was considered a motivation for gods to respond to the desires and demands of the person praying. Thus, the main function of the prayers in the case of illness was to bring gods immediately into action as the actual agents of the healing. In fact, the prayers in magical texts are not so different from those traditionally identified as non-magical or as part of religious rituals "To Greeks a magician not only uttered spells, he also prayed to the gods: Plato, for one, connects the $\dot{\epsilon}\pi\omega i\delta\alpha i$ (spells) and the $\dot{\epsilon}\dot{\nu}\chi\alpha i$ (prayers) of the magician, both of which helped him to persuade ($\pi\epsilon i\theta\epsilon\nu$) the gods". The same concept is also found in the Coptic magical prayers formulae, which usually began with an intensive beseech of several powers of the god(s) already invoked. This was a request often to be found in letters, especially between ascetics, for example in O.Vind.Copt. 363^{1136} : "I greet your brotherhood: pray for me, because my feet are very ill". The constant of the prayers of the god (s) already invoked. The greet your brotherhood: pray for me, because my feet are very ill".

The prayers of monks and holy saints were thought to be more powerful and efficacious, seeing that they were free from sins and had a special connection with God. A monk's prayers could be useful to all house hold-members, e.g., when children were sick. For example, in P. Mon. Epiph. 144 a man named Menas asks a monk at the Monastery of Epiphanius at Thebes to "pray in charity for my house; for my children are sick". Another letter (P. Mon. Epiph. 359, lines 7–9) from the same monastery states: "I beg that [thou] wouldest pray for me, in kindness, and those of [my] house; for the children are sick". ¹¹³⁸

The standard structure of the prayer was as a tripartite one. Firstly, there was the invocation and calling upon a divinity to take part in the ritual; followed by the middle section: a narrative with intensive listing of myths, and epithets addressed to the divinity; and lastly a final section that contains the actual wish addressed to the divinity. The usual verbal form that followed the invocation was usually a second-person imperative, for instance, "O Jesus..., let/ not NN!".

Interestingly, this tripartite form was the same structure as that of a magical incantation, so a magician might have felt no difference between a prayer and an incantation; ¹¹³⁹ *ACM*, 104, no. 58, ¹¹⁴⁰ is a monk's prayer to cure of sickness and to receive a pardon for sin. The text is written in an ecclesiastical context:

¹¹³² Kropp 1930: 3.182-183

¹¹³³ Graf 1991: 188–189.

¹¹³⁴ As in ACM, 304, no. 133; P.Ryl.Copt. 104, Sect. 6.

¹¹³⁵ O.Vind.Copt. 261. Till 1960: 82.

¹¹³⁶ Private letter, Ostracon 6 x 8 cm, dates back to the 8th cent. CE.

¹¹³⁷ My English translation is adapted from the German translation Till 1960: 82.

¹¹³⁸ Crum 1926: 190.

¹¹³⁹ Graf 1991: 189.

¹¹⁴⁰ Paper, 10,9 x 8.4 cm. Meyer and Smith 1994: 355 (transcription).

ACM, 104, no. 58

тав ехениен іаф немненси ноу стауфаіні Беніїфані нівен рітє $\overline{\text{пх}}$ с пенноу+ аріфно+ на немоуахаї не йпатехараї тироу ите́у хененноуві нен вох

Pray for our fathers and our brothers who are sick with every sickness, whether in this monastery or in any <house> of Christ our god. Grant them all with health and the absence of sickness, and let him forgive us our sins. 1141

P.Ryl.Copt. 104,¹¹⁴² sect. 4, is a medico-magical text containing a prayer with an invocation to Jesus Christ to protect Elizabeth from insects bites:

P.Ryl.Copt. 104

ТНРОУ ФОИВЕ ИВЕ НАГОВЕС ПАГОВЕС ВИМЕМЕ АЧХОВ ВОГОТОРНЫ ТЕМТАСХЕ ИЛІ АЎФ ИФАХЕ МПХОВЕС БИМЕМЕ АЧХОВ ТЕМТАСХЕ ИЛІ АЎФ ИПОСТОТЬ ТЕМТАСХЕ ПАІ: ЖЕМПЕРТРЕЎЛЬНІ ВОГОТЬ ТЕМТАСХЕ ПАІ: ЖЕМПЕРТРЕЎЛЬНІ АЙТІВОО ПАІ МИТОГОТЬ ТЕМТАСХЕ ПАІ: ЖЕМПЕРТРЕЎЛЬНІ ВОГОТЬ ТЕМТАСХЕ ПАІ: ЖЕМПЕРТРЕЎЛЬНІ ВОГОТЬ ТЕМТАСХЕ ПАІ: ЖЕМПЕРТРЕЎЛЬНІ ВОГОТЬ ТЕМТАСХЕ ИЛІ АЎФ ИПХОВЕС ВИМЕМЕ АЎСОК ВОГОТЬ ТЕМТАСХЕ ИЛІ АЎФ ИПХОВЕС ВИМЕМЕ АЎСОК ВІЗТИВНЕ ВОГОТЬ ТЕМТАСТЬ ВОГОТЬ В

A prayer, which when you speak, there shall no insect be able to bite (thee):—O Jesus, I am in Mary! O John, I am in Elizabeth! The Lord Jesus said, "Let not any at all me, NN., on this day and this night." The mouth of the Lord Sabaoth that says this: Let not any insect bite me. But let all the insects of the earth become stone in my presence and let all that are upon the earth become even as stone and iron in my presence. For the

¹¹⁴¹ Translation: Meyer and Smith 1994: 104 with slight modifications.

Paper, 19 x 14 cm. Bibliography: Crum1909: 53–56; Meyer and Smith 1994: 127 (translation section 4 only); Kropp 1931: 2.19 (translation section 4 only); 2.51 (translation section 6 only); 2. 52 (translation section 7 only).

mouth of the Lord Sabaoth it was did say this and the words of the Lord are true. It is finished. ¹¹⁴³

P.Ryl.Copt. 104, sect. 6, is another medico-magical text containing a prayer for protection from everything: This prayer includes an invocation to the holy Gospels of Matthew, Mark, Luke, and John, ¹¹⁴⁴ to protect the person who recited it from everything. The mentioning of the four Gospels reflects the protection properties of the Gospels, a phenomenon that also appeared in liturgy and ritual texts: ¹¹⁴⁵

P.Ryl.Copt. 104, sect. 6

оуфіна тектауоц тециоури илау иім: підісе иппфт поиц єпфире инпєнуна єтоуалв тархи ипецангєлюм єтоуалв . Ката мареос ката маркос ката лоукас қата іфанинс пфиар он итепенідовіс єї ецеталіц єпециарутис єграї єхінпоуєс (9 lines more, illegible). Ends негооу тирооу ип[adn]аг анок иім пфе \overline{ad} фаіенег гамин.

A prayer when you speak it, will protect from everything: the height of the Father, the.... of the Son and the Holy spirit; the beginning of his holy Gospel according to Matthew, to Mark, to Luke, to John; the life (?) which our Lord came to give to his disciples upon the all the days of my life, NN., the son of NN., for ever and ever. Amen. 1146

ACM, 304, no. 133¹¹⁴⁷ indicates to a number of diseases that can be treated with a prayer to God and the Seven angels in their Hebrew names. It requires purification before recitation, and it should be recited seven times for forty days over honey and some liquorice root:

1144 Another Coptic amulet ACM, 115, no. 62 quoted the incipits of the four Gospels with part of Psalm 91 for protection.

¹¹⁴³ Translation: Crum 1909: 54, with slight modifications.

¹¹⁴⁵ For example, in P. Haun. III 51 (II. 1–9) we read "Christ was born, amen. Christ was crucified, amen. Christ was buried, amen. Christ rose, ame[n]. He has woken to judge the living and the dead. Flee also you, fever with shivering, from Kale, who wears this phyl[a]ctery". Sanzo 2014: 34.

¹¹⁴⁶ Translation Crum 1909: 55 with slight modifications.

Papyrus, 15.3-16 x 15.3-17.3 cm; dates back to the 4th cent. CE. Papyrus codex with twenty pages and tied by strings; Bibliography: Worrell 1929–30: 239–62 (transcription); Meyer and Smith 1994: 304; Mirecki 1994: 435–60. It treats various diseases and illnesses such as the bites of beasts, reptiles, jaundice, swollen, ribs pain, spleen, headache, vertigo, fears in the night, sleepless, one who does not usually sleep with a woman, worms, for the illness of burning (lungs), strep throat, joints gout, for one who has a seizure, for a hemorrhage, blood flow of women, every disease, every demon, every evil eye, the evil eye that is among domestic animals, breastfeeding problems.

ACM, 304, no. 133

пноүте пхоеіс пхоеіс ппаантократфр петере печсшна о йауеін йкфрт пето йоуоеін ўн йпеөнп петенере ршне нін йхпо йсарў соуй печран еіннті йточ науаач терін тнрс йте типтсаве пеієвох ўн йаішн йпоуоеін паі атретрштч ере йдунаніс тнроу кште ероч ере поуа поуа тнш ехи печршв ий печаеітоуркіа аріре наі йршв нін йте теіеухн йн празіс нін ефнарітоот ерооу (р. 12) йхроп тарок рарн йпаткрршв йрнтс енер екнахокнек ўн оунооу йдафин ектввну ехш ўн нін ауш екоушн рре ечтвву екею рок ри оурноу йпетра йн оунріп йкафарон

It is worth mentioning that ascetics mainly expelled demons through prayer. The concept of prayer in monastic literature appeared through private letters from the early fourth century which reveal that the holy man's prayers were thought to also work as well from a distance:¹¹⁴⁹

P.Lond. VI 1926

"I ask and beg you, most honored father, that you request [help] for me from Christ and that I receive healing. Thus I believe that I receive healing on account of your prayers.... For I am beset by a great sickness, a terrible

¹¹⁴⁸ Translation: Meyer and Smith 1994: 304; 307 with slight modifications.

¹¹⁴⁹ Crislip 2005a: 23.

difficulty in breathing. Thus I have believed and do believe that if you pray on my behalf, I receive healing". 1150

Likewise, and ten years later, Tapiam and her husband Paul, merchants in Alexandria, wrote to the Egyptian ascetic Nepheros for healing:

P.Neph. l. ll. 10–13

"I, Tapiam, have fallen ill and I am still laid up. So we beseech [you] to pray for our well-being, since before this our children fell ill and were healed through your prayers." 1151

Crislip¹¹⁵² argues that for monastics, the concept of healing by non-medical methods was considered was certainly an endowment. However, it was often considered to have developed as a direct effect of ascetic superiority. In ca. 356 CE, Athanasius, Bishop of Alexandria, published the influential *Life of Antony*, a bibliography of one of the earliest monastic pioneers in Egypt. The *life of Antony* states that the healing potential is directly linked Antony's dominance of his body, which he maintained in "utter equilibrium", owing to this "[t]hrough him the Lord healed many".

Usually, monastic healers used sacred substances, such as oil and water, alongside prayers to obtain the desired results. Numerous literary and documentary sources illuminate this use of oil. These holy substances were very similar to the prayers which are not affected by distances and remained effective and valuable regardless of distances. This fact appeared in both literary and documentary sources. For instance, the *Historia Monachorum in Aegypto*, a travel account of a monastic pilgrimage to Egypt, approximately 394 CE, states:

"The blessed John [of Lycopolis] himself did not perform cures publicly. More often he gave oil to the afflicted and healed them in that way. For example, the wife of a senator who had lost her sight through developing cataracts on her corneas asked her husband to take her to the saint. When he told her that the saint had never spoken with a woman, she begged only

¹¹⁵¹ Translation: Crislip 2005a: 23.

¹¹⁵² Crislip 2005a: 22.

¹¹⁵⁰ Translation: Crislip 2005a: 23.

[[]http://papyri.info/ddbdp/p.neph;;1?rows=2&start=0&fl=id,title&fq=series_led_path:P.Nepheros;*;*;*&sort=series+asc,volume+asc,item+asc&p=0&t=46]

that he should be told about her and offer a prayer for her. This he did, and moreover sent her some oil. She bathed her eyes in the oil only three times and on the third day regained her sight and publicly thanked God."¹¹⁵³

This healing practice is also demonstrated in a private letter to Apa Papnutius, from the 430 CE. Heracleides writes:

"Both because of my name and because of the sickness that has seized me and oppressed me, I now beg you to do this additional thing: send me the oil....For I do not believe that I will he helped otherwise." ¹¹⁵⁴

In a part of the personal letter, the author asks the other monks in the monastery for some "Holy oil" from the alter of Apa Daniel on the day of his feast:

O.Vind.Copt. 261

__]* теі мте́пресваі ммекфіль етоу[ав _____] момастнріом мптопос етоуав [? мал]лом перооу етоуав мапа дауеід [е]те пеффа етоуаав пе етректимооу оукоуї ммер мфіль гмі пефусіастнр/ мметоуав ауф мгтвр месмну етоуаав етреупартоу гарої исетвр пмоуте ехи тамитреф мове ммом †горф емате †ффие де хим соу хоуттіс маффр

___] the intercession of your holy prayers [...] monastery of the holy Topos, [especially] on the holy day of Apa David, that of his holy festival. That you send a little prayer oil from the altar of the saints and pray the brothers. Pray that they may prostrate themselves for meand pray to God for my sinfulness, for I am very poorly and sick since 29. Hathor. 1155

Blessed water was another one of the blessed substances used for healing through non-medical methods. For example, a letter from a Pachomian monastery (Bishop Ammon) sent to Theophilus, the Patriarch of

¹¹⁵³ Translation: Crislip 2005a: 24.

¹¹⁵⁴ Translation: Crislip 2005: 24.

¹¹⁵⁵ Author's own translation.

Alexandria, presents a fully comprehensive report on the use of water for healing by the Pachomian abbot Theodore to heal a poisoned young girl: 1156

> "Amid the sound of a crowd of men and woman weeping near the monastery—for [the girl] was expected to expire—the child's father came from the opposite bank, carrying a silver cup filled with water.... Theodore took the cup, looked up to heaven and prayed with tears, and made the sign of the cross of Christ over the water. The child's father took the water and went to his house with the crowd. After three or four hours he returned.... He said: "My brothers were able by force to open the corners of my daughter's mouth and pour in a small portion of the water. Immediately there was an abundant excretion below and the girl was saved."1157

There is no doubt that these monastics believed that physical therapy together with complementary techniques like prayer, laying-on of hands, blessings, performing the sign of the cross, and the utilisation of blessed oil and water, played an essential role in healing the nonmedical diseases by the power of God. 1158 As in the healing of non-demonic diseases, the application of blessed oil and making the sign of the cross could cure demonic diseases, and the presence of the monastics could be sufficient to cast out demons. On the other hand, many texts mentioned that non-medical ways of healing did not have an effective impact all of the time. The second Sahidic life of Pachomius narrates:

> "If it happened that the sick person was healed he applied a [religious] remedy to him, he did not pride himself on it, knowing that the power came not from him but from the lord who dwelt in him. On the other hand, if he applied a remedy to someone without obtaining a cure, he was not saddened or disheartened, but blessed the Lord."1159

Similarly, Athanasius describes Antony's inability to heal:

"And with those who suffered [Antony] sympathized and prayed- and frequently the Lord heard the prayers he offered on behalf of many people.

¹¹⁵⁶ Crislip 2005: 24.

¹¹⁵⁷ Translation adapted from Crislip 2005: 24.

¹¹⁵⁸ Crislip 2005: 25.

¹¹⁵⁹ Translation: Crislip 2005: 25.

And Antony was neither boastful when he was heeded, nor disgruntled when he was not; rather, he gave thanks to the Lord always. He encouraged those who suffered to have patience and to know that healing belonged neither to him nor to men at all, but only to God who acts whenever he wishes and for whomever he wills."¹¹⁶⁰

6.6 DISEASES TREATED WITH MAGIC

Some illnesses were treated with magic rather than with medicine. Demon possession was, for example, one of these diseases. It is not mentioned in the medical texts, possibly because it was not considered as a disease like the others. Being possessed means that there was a hidden spirit or diabolical power in the sufferer's body. On the other hand, other diseases were shared among both the fields of medicine and magic such as pregnancy, migraine, skin diseases (but it is difficult to define 'cutaneous'), cases of leprosy, fever, and snakebites, gout, chills, spleen, mental diseases, possession, and fire diseases.

6.6.1 BLOOD FLOW

Blood flow was a disease that could be adjusted easily after delivery. Bleeding was expressed clearly in the first two recipes of BKU I 25, II. 13–15 and P.Köln XV 641¹¹⁶¹ (4–12 left) with the expression etbe oycene epe oycnoq expoc "For] a woman whose blood is beneath her". This is what the following recipe states:

BKU I 25, Il. 13-15

[..] mcmayo ede-lecnor saboc, [..] [..] bloc eukwal kalnize M[..]

[For] a woman whose blood is beneath her. [Give...] to the fire and smoke [it, ...] She will be healed.

¹¹⁶⁰ Translation: Crislip 2005: 25.

¹¹⁶¹ Schenke 2017: 253–260 (transcription and translation). Metadata at "KYP M503", [Kyprianos Database of Ancient Ritual Texts and Objects, www.coptic-magic.phil.uni-wuerzburg.de/index.php/manuscript/kyp-m503]. Accessed on 28/03/2021.

P.Köln XV 641¹¹⁶² (4–12 left)

етве оусріне єре оусноч рарос рилі мороу єрос ложкоу 1163 єтес \dagger пе ме 1164 тесриліє 1165 аполо(гіа) $\overline{\Theta Y}$ (міама) $\overline{\text{мас}}$ (тіхн) фасфх тахн (magical signs in rows) сраі наі налмітет налхоуві хартне ложкоу єрос оуслін пе єчтокімом оукоілна ра намартє єх и ткаларн нал

For a woman who is bleeding, ¹¹⁶⁶ make these things! Tie them (these things) to her. Stick them to her waist and navel. Spell, incense mastic resin. It will stop quickly. (magical signs in rows) Write these things in ink on wood (or) papyrus. Stick them to her! It is beautiful (good) tested. One ounce is appropriate against the powers upon the womb of the NN. ¹¹⁶⁷

The following text explores a ritual connection between Elijah stopping the Jordan River with his staff and crossing it as if it were like dry land (2 Kings 2:8) and the cessation of the bleeding:

ACM, 263, no. 127, vo, ll. 61-65

+ етве одбрума и окф псоц внугас ека/йодх инебреднял би иги \overline{Y} иноол инефольте уфр исоф бнугас ека/йодх инеформации \overline{Y} иноол инефольте уфр исоф бнугас ека/йодх инеформации \overline{Y} иноол инеформации \overline{Y} иноол инеформации \overline{Y} иноор иноформации \overline{Y} иноор иноор иноформации \overline{Y} иноор ино

p For a discharge or a flow of blood: As Elijah, about to cross the Jordan River on his feet, raised his staff with commands that the Jordan be like dry land, in this manner also, lord, you must drive the discharge from N. child of N., through (the) power of the one in whose hand are the keys of heaven, Lagar Gar Gar Aromarkar.¹¹⁶⁸

¹¹⁶² Paper, 16.5 x 11 cm, dates back to the 10th-11th cent. CE. Bibliography: Schenke 2017: 253–260.

¹¹⁶³ λοχκ, λωχκ, λωχ6, λωχτ "join to; stick". Crum 1939:150b.

¹¹⁶⁴ не for нн. Schenke 2017: 256.

¹¹⁶⁵ **?**нхпє for гхпє Schenke 2017: 256.

¹¹⁶⁶ Literally: "a woman with blood beneath her". Schenke 2017: 256.

¹¹⁶⁷ English translation from the German translation by Schenke, with slight modifications.

¹¹⁶⁸ Translation: Meyer and Smith 1994: 267, with slight modifiations.

P. Macq. I 1, p. 16, ll. 1–5

етве. $\omega\lambda$ снов. нін. \mathbf{A} єуфиве. єєчфоуфоу. нароуфи. Фрипе. єчденпсфиа. Ді єхфв. \mathbf{Z} іє \mathbf{X}

"For every staunching of blood: Say the formula on a dry gourd. with vinegar." ¹¹⁶⁹

6.6.2 BRAIN AILMENTS

The following recipe offers a treatment for brain pains but it is incomplete:

ACM, 263, no. 127, ll. 56-58

оүамкефалос еч \dagger ткас / оүерете нсат оү гмо ге мег гі нрп гі өермом / малк... λ то

A brain that gives pain: A foot ... salt, oil, wine, and hot water

6.6.3 BREASTFEEDING PROBLEM

A distress that threatened both mother and child was the failure of produce breast milk. Here P.Ryl. Copt. 103^{1170} contains a spell to protect the breast. Unfortunately, most of the text is illegible, as Crum declares: 1171

P.Ryl. Copt. 103

..... тамааүте маріа теківе, теківе нтапенховіс їс пехс сф ввох нентс емпран етесфрагіс есфолее еіхмпент емаріа

¹¹⁶⁹ Choat and Gardner 2013: 75.

¹¹⁷⁰ Paper; 15 x 8 cm. dates back to the 8th–10th cent. CE. the first lines are illegible. Bibliography: Crum 1909: 53 (transcription and translation); Meyer and Smith 1994: 231 (translation); Kropp1931: 2.211–12 (translation).

¹¹⁷¹ Crum 1909: 53.

тпароєнос гмпран єпсафу єх...н єтоуаль єудек m^{1172} єті[гити]естигит m^{1173} єпіфт пантфиратфр аєніоуф гмпран єпентацхоос делнок мепаіфт анон оуа m^{1174} єтепаіпе їс пехс гмпран є m^{1174} авва авва авва авва завана нача акрама хамарі m^{1174} m^{117

..... my mother is Mary. The breast....., the breast from which our Lord Jesus Christ drank. In the name of the seal that is imprinted on Mary the Virgin's heart. In the name of the holy seven ..., that are pricked upon the breast of the Father, Almighty AEĒIOUŌ. In the name of him that said, "I and my Father are one," that is Jesus Christ. In the name of Abba Abba Abba Ablanatha Nafla Akrama Chamari Ely Temach Achoocha. I adjure you by the sacrifice of your only begotten Son, Jesus Christ, Rabboni, in the manner that you signed the cup. 1175

6.6.4 CHILLS

P.Mich. MS 136, Il. 42–52¹¹⁷⁶ prescribes remedies against chills, which is applied in Iliad, Book 3, 33–35. In addition, magical-medical texts *ACM*, 100, no. 53; *ACM*, 101, no. 54 and *ACM*, 98, no. 51 present prescriptions against the chills.

6.6.5 EYE DISEASES

The numerous formulae for the eye diseases reflect the everyday predicament of the general population, which was extreme considering the atmosphere and the conventional uncleanliness. This uncleanliness was

1172 Crum 1939: 765a. Crum translates into "burnished", but I think it is more suitable her to translate it into "pricked", so the names that pricked upon the breast, especially with cφρατίζε. And "burnished" is used usually with surfaces of metal or wood.

271

¹¹⁷³ Crum 1939: 187b. местөнт. Cf. местигнт "breast". Coptic Dictionary Online [https://coptic dictionary.org/entry.cgi?tla=C2064], (last accessed: 04.11.2019).

 $^{^{1174}}$ мепают is for мипают. Деанок мп пают анон оуа (John 10:30).

¹¹⁷⁵ Translation: Crum 1909: 53 with slight modifications. Crum's translation: "my mother is Mary. The breast, the breast whence our Lord Jesus Christ drank. In the name of the seal (σφραγίς) that is imprinted on Mary the Virgin's heart. In the name of the seven holy, burnished that are upon the breast of the Father, Almighty {the 7 vowels}. In the name of him that said, "I and my Father are one," that is Jesus Christ. In the name of (magical names). I adjure thee by the sacrifice of Thine Only begotten Son, Jesus Christ, Rabboni, in like manner as Thou didst sign the cup."

¹¹⁷⁶ (See 6.2).

based partly on superstitious: a child should not be washed in order from him or her to remain unrecognisable to the demons, so he should not be washed. As previously discussed, eye diseases recipes occupy a large space in the Coptic papyrus of *Meshaikh*, which offers only folk remedies, while, BKU I 25, II. 8–16 introduces magical elements as well. *ACM*, 263, no. 127 also gives instructions on treating eye problems in, for example, I. 58: "concerning eye that is darkened (blinds)."

ACM, 270, no. 128, ll. 31–34

єтвє даквал ноупоўї йгндаа нігкшпе/ ник ноудіў нігсгаї едшу \dot{n} ніццаррп \dot{n} рай \dot{n} несрхи ишг несрвал \dot{n} несрхи \dot{n} евол \dot{n} евол \dot{n} екатанејаас \dot{n} екатанеја

"For eye disease (?): (Take) a little aged vinegar, catch a sparrow, and write on it the first name of the prayer. Fill its eyes with aged vinegar, remove them, and let it go (?). You must prepare it on the eighth of the month". 1180

The magical action here lies instructed in the rite by which the disease is transmitted to a bird, namely a sparrow, by using names from the opening lines of the prayer, which includes the names of angels, names of power (Ablantha, Abra, Akramachamario, Semsemlam, Sesanke Barpharkes, Tameamnoues), and the Holy Trinity.

Two Jesus legends appeared to be used in the healing of eye ailments: The first is in the British Museum, Anastasi collection 29528, in which the relationship between the first text and the healing of the eye is clear, as Jesus heals the eye of the doe through the mediation of Michael: "the wound will heal, the darkness will be dissolved". The second is found in P. Ryl. Copt.102, ¹¹⁸¹ which mentions ογ†κας ΝΒΑλ¹¹⁸² "eye pain", and contains an invocation to the lance with which Christ was stabbed, Crum assumes that it is a reference to Longinus' blindness legend. ¹¹⁸³ Kropp¹¹⁸⁴ argues that "perhaps the meaning is: just as the lance-tip emerged from the body of the Lord in the grave at Mary's prayer, so

¹¹⁷⁷ Kropp 1930: 3. 206.

¹¹⁷⁸ (See 5.6).

¹¹⁷⁹ Chassinat 1902.

¹¹⁸⁰ Translated by Meyer and Smith 1994: 271.

¹¹⁸¹ Paper; 25x10 cm. Crum 1909: 52-53.

¹¹⁸² Crum 1909: 52.

¹¹⁸³ Crum 1909: 52.

¹¹⁸⁴ Kropp 1930: 3.207.

may the foreign body that has penetrated the eye, or the disease in general, leave the eye of the person about whom the saying is being read".

P.Ryl.Copt. 102, contains two magical spells one against ophthalmia and another for general protection from everything in general. It is assumed that it refers to the legend of Longinus' blindness. The text starts with some magical characters, followed by the one line ([...] τωσισκικώ), magical signs, and then the text:

P.Ryl.Copt. 102

Eye pain male iron, female iron, iron of wood of ..., that was named upon Ezekiel's mount, that was pulled and plucked and made a lance and set in Jesus' side, upon the tree of the cross of Sion (?), this day! I adjure you, O heavenly iron, which was the body of Jesus Christ; for you are coming in you come forth by the power of this prayer which Mary the Virgin recite without (?) the tomb. Yea, yea, quickly!. 1186

6.6.6 FERTILITY

The help and assistance of a doctor or a magician to achieve fertility and reproduction were the things most sought after. This idea of birth protection dates back to the Old Kingdom. Many amulets for protection can be found in tombs. Some of the Middle Kingdom amulets seem to have jagged knife-like edges, inserted into a wooden lug (figure 14–15). On the object in figure 15 the words "we have come to protect the lady, Merisenb" are inscribed. 1188

¹¹⁸⁵ Crum 1909: 52.

¹¹⁸⁶ Translation Crum 1902: 53 with slight modifications.

¹¹⁸⁷ Kropp 1930: 3.199.

¹¹⁸⁸ Bouwer 2012: 187.



Figure 14. Magical Wands or Knives

- ❖ a. Boston Museum of Fine Arts New York
- **b.** Museum of Art at Cairo
- c. Egyptian Museum

(After Bouwer 2012: 188)

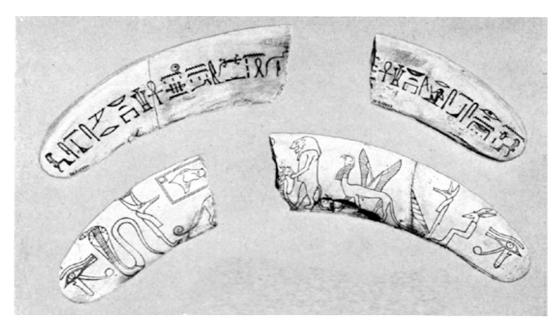


Figure 15. Metropolitan Museum of Art, wand to protect the lady, Merisenb. (After Bouwer 2012: 189)

Similarly, there are many Coptic medical and magical recipes to help a woman to become pregnant and equally, to protect her during the period of pregnancy:

ACM, 270, no. 128, ll. 67-69

oyczine etpeco tayco exn zenbnne ūpayne ūr/tay nhc ūcoyamoy ayw cnaooy tayoc de ncoy/ xoyt \dagger ic mpwz

To make a woman become pregnant: Utter it over dates of a virgin palm, and I give them to her that she may eat them, and she will become pregnant. Utter it on the twenty-ninth of the month. 1189

275

¹¹⁸⁹ Translation: Meyer and Smith 1994: 272.

 Θ СОИ ОҮРАНОҮ ГЕНЕСІ АӨЄРНЕ КАНСІА . АӨЄРНЕВОҮНІ. ХАВІСАХӨІ. ХОМОХООХІ. ІСІ . СОҮСН. МОҮНТН. ТПТОРЕСО. ЇСОВАСТ . ВАСТАЇ. РІВАТ ХРІВАТ . ОЄРНСІВАТ . ХА МАРЄІ . ХҮРІӨВАӨ . СОУЄРН . ӨАРАӨА ӨАВААӨӨА . ӨАӨ. ВАӨАА. ХАӨАЇ. АХРА. АВАӨАЇ . АН . ПОІНСОН ТНИ МНТРАН ТНС Д НИ ЄТЕКАНН Д ЄІС ТО КАТАФ† ЄНЕСӨАІ. КАІ АФЛЕГМАНТОЙ ЄІНАЇ . АКІНДҮНІ . АЄІ НВАСАНІСТОС НДНЁ ТАХҮ В ВАТОН МАЛЛОН ЄРІДН ЛЕУКОЎ ВАЛЕ ЎПОКАТОР АЎТНС КАІ ЄЎӨЄСОС ӨЄРӨПЕЎСОН >>>———.

"I invoke you, great Isis, ruling in the absolute blackness, Mistress of the gods of heaven by birth, (Magical names or words). Make the womb of so-and-so, whom so-and-so bore, relax into the natural position and be uninflamed: without danger, forever without pain, Straightway, straightway, Quickly, quickly! Soak a flock of white wool. Put it underneath it, and straightway cure."

P.Mich. MS 136, ll. 60–114, contains a spell for birth, which invokes the Egyptians deities (Amun, Thoth, Isis, Horus) and Yao.

ACM, 120, no. 64 is devoted to protect 'Sura' during her current pregnancy and also every child born to her. It contains spells for protecting her from any evil and illness: NIBI eτραογ "every evil force", as the spell describes (l. 19); the goddesses and the demigods of the ancient gods (l. 22); απαλαφ Apalaf, αβροελία Aberselia, the child-killing demon, and the fever in its various forms (l. 24–25), the demons at all (l. 46), male and female (ll. 126–127). Kropp¹¹⁹¹ argues that the text is understood as being originally addressed to one of the birth deities. It is presumably that Sura wears it as an amulet.

ACM, 95, no. 49, Il. 3–18¹¹⁹² presents an example of the facilitation of a delivery. It contains the legend of Jesus and a doe in labour, in which Jesus facilitates the doe's childbirth. As Jesus helped and supported the doe, it is expected to equally assist the woman, who blesses a potion with this saying, or wears this text as an amulet. A blessing is spoken over a cup:

¹¹⁹⁰ Translation modified from Worrell 1930: 84.

¹¹⁹¹ Kropp 1930: 3. 200.

¹¹⁹² Beltz 1983: 66 (transcription). Translation adapted from Meyer and Smith 1994: 96.

¹¹⁹³ Kropp 1930: 3. 201.

ACM, 95, no. 49, ll. 3–18

"Jesus our lord came walking [upon] the Mount of Olives in the [midst] of his twelve apostles, and he found a doe ... in pain [...] in labor pains. It spoke [to him in these words]: "Greetings, child of the maiden! Greetings, [first born of your] father and mother! You must come and help me in this time of need." He rolled his eyes and said, "You are not able to tolerate my glory, or to tolerate that of my twelve apostles. But though I flee, Michael the archangel will come to you with his [wand] in his hand and receive an offering of wine. [And he will] invoke my name down upon [it] with the name of the apostles, for 'whatever is crooked, let it be straight': [Let the baby] come to the light!"."

Macq. I 1, p. 13, ll. 26-27

оугіне таресш. А. сүнооу нанонаюн. тсос. А. сгоун. срос

"A woman might conceive: Say the formula on flower water (?). give it to her to drink. Say the formula in to it (or 'her'?)". 1195

P.Ryl.Copt 104 Section 7

однуул ефусубератс бюлсбіне: уісі є<u>іс</u> елінол[те еиуну $\dot{\theta}$ дтнс удбе

"When a mother stands by (?) a woman:—I have come (?) and Jesus is come and called his disciples. They have found a ..."

1196

¹¹⁹⁴ Translation: Meyer and Smith 1994: 96.

¹¹⁹⁵ Choat and Gardner 2013: 69.

¹¹⁹⁶ Translation adapted from Crum 1909: 55.

6.6.7 FEVER

The sudden occurrence of a fever compelled one to presume that the spirits and evil presences caused this disease, especially when the increase in one's body temperature was combined with shivering. There are several types of fever in the texts such as hot, cold fever, or even periodic fever as in P.Mil.Vogl.Copt. inv 22, 1198 and this one P.Ryl. Copt. 104 sect.5, which lasts around 23 days (παρικ μπχοταρομτε), it is known by בمئ الغب "tertiary fever": 1199

P.Mil.Vogl.Copt. inv 22, ll. 11-19

```
ΤΌΝΘΥ ΠΑΥCON ΤΑΝΟΥ[. ?] ΤΡΑΣ ΤΡΑΤΟΥΤΑΥΣ ^{1200} ΤΡΑ[ . ?] ΤΟΥΤΑΣ ^{1200} ΑΝΑΝΘΎΣΩΝ Ν[ . ?] ΤΕΆΒΑΣ ΚΟΡΑΡΡΑ ^{1200} ΙΑΒΕΕ[ . ?] СΕΙΝΑΠΕ ΤΩΘΡΕ ΝС . [. ?] ΝΑΥΕΡΜΟΝΕΤ ΜΝ ΠΙΑ[CIK . ? ] ΝΕ ΜΝ ΠΙΩΜΟΜ ΝΓΓ ΑΙ[Ο ΑΙΟ ΤΑ-] ΧΗ ΤΑΧΗ ΤΑΧΗ [ . ? ]
```

Tōnthu, Pauson, Tanou [...] Trax, Tratoutaux, Tra[...] Toutaks, Thusiah, Čē[...] Sarasam, Ananthasōn, N[...] Teabas, Korarra, Iabbe [...] Seinape (Zaynab?), the daughter of S[..., flee from her?],o this shivering and this periodical fever¹²⁰¹ [and ...] and this tertian fever!¹²⁰² Yea, [yea,...,quick]ly, quickly, quickly, quickly!¹²⁰³

P.Ryl. Copt. 104 sect.5

еітве термомт миласік мпхотоюмте. Here follow magicl letters, the vowels (seven times each) and дамаю, адонаі, оннаора..., саваю[ө],

1200 From the published photograph Hasitzka and Satzinger 2004: (fig. 17). τατογταγέ by Van der Vliet 2005: 142.

¹¹⁹⁷ Van der Vliet 2005: 144.

¹¹⁹⁸ Hasitzka and Satzinger 2004: 142; Van der Vliet 2005: 141–145.

¹¹⁹⁹ Crum 1909: 54.

¹²⁰¹ acıκ "periodical fever" or "ague", this sort of fever treated medically by using plaster as the medical recipe Ch 118 recommended (see 5.18.2).

مى الغب (الثلاثيه) It is known as

¹²⁰³ Transliteration and translation: Korshi Dosoo, Edward O.D. Love & Markéta Preininger (chief editors). "KYP T604: Applied amulet for Seinape, the daughter of S[...]", Kyprianos Database of Ancient Ritual Texts and Objects, www.coptic-magic.phil.uni-wuerzburg.de/index.php/text/kyp-t-604. Accessed on 06/09/2021, with slight modifications.

модат тууд ецедноте $\underline{\Theta}$ мус $\underline{+}$ хе модернот. (ферсо) ... це ину оду $\underline{+}$ но фод иупиенсооебойет.и

For shivering and the 23 days fever. [obscure], and Lamath, Adonai, Thenaora..., Sabbaoth, Abbat..... one, give it to his neck, mastic of one ...¹²⁰⁴

The standard fever was called 2μομ, 2μαμ¹²⁰⁵ "heat, fever"¹²⁰⁶ and was medically treated with plaster and other remedies (see 5.16.1). Here I will focus on the magical recipes, which are used for fever. *ACM*, 98, no. 51¹²⁰⁷ is a healing amulet on paper for "Poulpehepu" to combat various types of fever. The amulet contains the SATOR formula, the vowels series, power words λαλ μογλαλ φογλαλ, as well as the youths' names from Daniel 3:¹²⁰⁸

ACM, 98, no. 51

.... сатфр аретф тинит фтирф рфтас фрирф и†гуние меніфбец мен піасік меніїраф ме и†єрифит ми пікліміам мен дієрифит ме енпіфоуметффиет меніцілікає гентапє мипсфиа ипоулпегепус ихарра гем праи меніцт итатфхоў пофиа пианоунх пенно нх пенфт гіпестос гітенноудаї хекас екеці ецфх мпіфбец меніїраф гемпісфиа ипоуапегепус ихарра λ тахн λ е н і о у ф

"... SATOR ARETO TENET OTNRO ROTAS, take away this fever and this cold and this shivering and this chill and this shaking fever and this complaint and this shaking fever and this tertian fever and this pain from the head and the body of Poulpehepus son of Zarra through the name and the nails that were driven into(?) the body of Manuel, our Nuel, our god

1206 Crum 1939: 677a.

¹²⁰⁴ Author's own translation.

^{1205 (}P.Köln 425).

¹²⁰⁷ Paper, 5.5 x 22.5 cm, dates back to about 11 cent. CE. Bibliography: Alcock 1982: 100 (transcript); Meyer and Smith 1994: 98–99 (translation).

¹²⁰⁸ Meyer and Smith 1994: 98.

on the cross, by the Jews, that you may take away this cold and this chill from the body of Poulpehepus son of Zarra, yea, at ounce!". 1209

An amulet on parchment, from the Moen collection, ¹²¹⁰ contains the same text on its flesh and hair sides, with the name of its client written at the beginning of the text. The amulet is dedicated to Phoibammon to heal him from fever and chill almost instantaneously, as the spell is recites the word "today". It contains the usual invocation of "I adjure you by your names", without mention of these names:

ACM, 99, no. 52

Verso:

аноок фоіваниюн піднрє єкєсоутєй итексіх євох икці нау нпіцэф<иє> нпоооу ноухц євох гігоун ноц н \bar{n} гівох ноц пігнном <гі> ароф. 1211 тіфр \bar{k} рок нєкрай нанонасіа. Ноухє євох нароф иім. Ни гинон иім анок фоівамиюн підіре марїа.

I (am) Phoibammon, the son. May you stretch out your hand and remove this sickness today. Cast it forth from inside him and outside him, this fever <and> cold. I invoke you in your names. The names. Cast forth every cold and every fever. I am Phoibammon the son of Maria.

Recto:

анок фоіванний пијнре наріа екесооүтен итекоїх євох икці нау нпіційне игином гі ароф. икноху євох сагоун ної. Ни савох ної аїо Ne(x) раан [[.]] нанонасіа

I (am) Phoibammon, the son of Maria. May you stretch out your hand and take away this I sickness of fever and cold. Cast it forth from inside me and outside me. Yea, <your> names. The names. 1212

¹²⁰⁹ Translation: Meyer and Smith 1994: 98–99.

Parchment, 17.3 x 10.2 cm, dates back to the 9th–10th cent. CE. Bibliography: Sijpesteijn 1982: 179–381 (transcription; translation); Meyer and Smith 1994: 99–100 (translation); Pernigotti 1995: 3729 (no.44); Pernigotti 2000: 60 (no. 26).

¹²¹¹ Crum mentions that it is a malady opposite to гимом. Crum 1939: 16b. аросо, the word "cold" refers to chill.

¹²¹² Translation: Meyer and Smith 1994: 99–100 with slight modifications.

ACM, 100, no. 53, is a healing amulet for different types of fevers. It invokes the three youths in Daniel. $3.^{1213}$

ACM, 101, no. 54¹²¹⁴ is an amulet for Ahmed, to heal and protect him from fevers and madness. It uses the utterances, AKRAMACHAMARI, ABLANATHANA[LBA], the ALPHA form, the vowels' series, and angels' names:

ACM, 101, no. 54

вавоуха ... акрама ха]марі авланавана [] о [] ранкінє домє дом $\overline{\Delta}$ дом $\overline{\Delta}$ алафа леон фонн аннр аеніоуф міханх гаврінх графанх нх соурінх даравінх дедекі ананх уфих тенх аеніоуф †сопс ауф †паракалі мнот[и] Хекас етесіне євох мпіароф ми піка и сарте ми нієрвоон $[\varepsilon]$ ми †маніа ми піріме єсавох єармит подирє миаріам гитеноу етеци[a]форі мноти \overline{a} \overline{a}

"BABOUCHA...AKRAMA[CHA]MARI ABLANATHANA[LBA] ... RANKME DOME DOM DO D, ALPHA LEON PHONE ANER, AEEIOUO, Michael, Gabriel, Raphael, Suriel, Zarathiel, Zedekiel, Anneal, Yoel, Tsel, AEĒIOUŌ: I beg and I invoke you that you bring out the cold and the slight chill and the evil eyes and the madness and the crying from Ahmed son of Mariam in the hour that he will carry you, yea! yea! at once! at once!."

Vienna, Nationalbibliothek K 08637 Pap¹²¹⁶ is a healing amulet to expel a fever away from a person named Thōthphe, the son of Giōrōgia. Fully preserved, the parchment has eight lines of text in the Fayumic dialect, and two lines of magical signs. The hand could date back to the late 10th or 11th century. The manuscript itself acted as an activated amulet for taking fever away from Thōthphe, the son of Giorgia: ¹²¹⁷

¹²¹³ For the Coptic texts and translation see (6.4)

¹²¹⁴ Quecke 1963: 249 (transcription); Meyer and Smith 1995: 101 (translation).

¹²¹⁵ Translation: Meyer and Smith 1995: 101.

¹²¹⁶ Parchment, 10 x 8cm. Bibliography: Stegemann 1934: 50–52; Buschhausen, Horak, U. and Harrauer 1995: 58-59, no. 73.

Metadata at "KYP M258", Kyprianos Database of Ancient Ritual Texts and Objects, [www.coptic-magic.phil.uni-wuerzburg.de/index.php/manuscript/kyp-m258]. Accessed on 27/03/2021.

Vienna, Nationalbibliothek K 08637 Pap

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Вλ
        ПΡ
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bybicarwc /// betiwp . Kanan mhaan /// boykan catrak ///mhccak
///\Delta B+NAK[0] ANNHAC/// ACCAPIAC ///MHCHA ETE NI NEYAENEY /// TICOTIC
///ayw tinapakali maten /// bi \thetaein abal /// \thetaw\theta\phie nwy nriwpwria
///aia ia: taxh taxh ///
```

Babisarōs, Babegiōr, Kaprlal, Mēlal, Boukal, Satrak, Mēssak, Abthēnako, Annēas, Assarias, Mēsēl, whose names these are: I entreat and I adjure you. Take away the fever (from) Thothphe, the son of Giorogia. Yea! Yea! Quickly! Quickly!. 1218

The power of this amulet to heal Thothphe from a fever is gained by calling upon the Three Hebrew Youths, by using the commands like "Take away; Yea! Yea! Quickly! Quickly", and also using the inscription of the magical signs and the shape of the cross on the amulet.

The invocation of the Three Hebrew Youths is usually connected with the cure of fever. The Hebrew youths were thrown into a blazing furnace by Nebuchadnezzar, King of Babylon, as narrated in the Book of Daniel, Chapter 3. Usually those names were used to express the hope that the patient of such amulets would overcome and survive the heat of their own fever, in the way the youths survive and endure the heat of the fiery furnace.

P.Köln 425¹²¹⁹ is a bilingual Coptic-Greek amulet against fever and contains magical signs and words, i.e. the vowel as seven times, and the vowels δοει, αβλανθαναβλβα, and ακραμαχαμαρι are both written in Greek in the form of wings with the ending ήδη ήδη, ταχή ταχή:

P.Köln 425

ΦΥλακτηρίου ετβε περμανά (magical signs) (magical signs) 4 (magical signs) χχχχχχ (magical signs) യയയയ 4b $\omega \omega$

 $^{^{1218}}$ English translation from the German translation by Stegemann 1934: 50–51 with slight modifications. 1219 Papyrus, 17.1 x 10.8 cm, dates to the 5th–6th cent. CE. Schenke 2003: 226–232.

 $\Delta \Delta \Delta$ 4c θεράπευς ον βίκτωρ ο η α ι Μαρία πρός πυρετον ήδη ταχή αβλανθαναβλ{β}α ακραμαχαμαρι 8 αβλανθαναβλ<β> ακραμαχαμαρι αβλανθαναλ сссн ακραμαχαμαρ αβλανθανα ссн†снн ακραμαχαμ αβλανθαν ακραμαχα 12 αβλα<ν>θα $\{$ ν $\}$ ακραμαχ αβλανθ етве гиам ихартно ακραμα αβλανα ΚΑΡΟΝ ΝΑΑΑΟΟΟΟΕΙΕΙΕΙΕΙ ακραμ 16 αβλα θεράπευς ον βίκτωρ ο η α ι ακρα αβλ Μαρία πρός πυρετον ήδη β ακρ αβ ταχή ταχή ακ α α

Amulet against the fever. Heal Viktor, Maria¹²²⁰ ..., from the fever. Now! Quickly! *ABLANATHANALBA*. *AKRAMACHAMARI*. Against fever: on clean papyrus. (write) *aaaooooeieieieie*. Heal Viktor, Maria ..., from the fever. Now! Now! Quickly! Quickly!. ¹²²¹

6.6.8 FIRE AILMENTS

P.Mich. MS 136, Il. 150–161 is a magical text that contains a recipe against поромоүмн "fire ailments"; 1222 however, the exact type of concerned afflictions is not clear from the recipe. The recipe is magical, with an invocation to Iasabaoth Adonai, combined with some healing techniques:

P.Mich. MS 136, ll. 150–161

¹²²⁰ Schenke translates it into "Viktor, den Maria", and she suggests that Viktor is the son or husband of Maria. Schenke 2003: 232

¹²²¹ English translation from the German translation by Schenke 2003: 232.

¹²²² According to Worrell 1935: 33, but I prefer to translate it "urine sand" (see 5.11.1).

[ос]фн . осфн . їосфн . їосфн . їосфн вівіоу . вівіоу. вівіоу. $\overline{\text{Iacabauh}}$ адшиаі . $\overline{\text{петамарте еграї ехи печтооу йкоог йпкосмос ги ршв иім еєіоао<math>\overline{\text{Iq}}$. Анок иім. $\overline{\text{пире иім ндн ндн таху таху...}$

Osphe, Osphe, Osphe, Iosphe, Iosphe, Iosphe, Bibiou, Bibiou, Bibiou, Iasabaoth! Adonai, that rules over the four corners of the world, in anything that I desire! I am so-and-so, the son of so-and-so. Straightway, straightway, quickly, quickly!.....¹²²³

6.6.9 GOUT

P.Mich. MS 136, Il. 10-20

прос подагран 1224 догімон > X Г $7 \, ^{\circ}Z^{\circ}_{\circ} \stackrel{\frown}{=} \stackrel{\frown}{=} \stackrel{\frown}{=} \stackrel{\frown}{\sim} \otimes \mathcal{S} \stackrel{\bigstar}{\sim} _{22} \stackrel{\bigstar}{\sim} _{24}$ догімон > X сехнин хнгоусис і каі өаххссис ххіара катантхфи і єпіхеге то онома і хеїан енегр со > поінсон тоуто єфіс $\overline{\text{ид}}$ і нмерас> єпікахоунаї се тин йегіс тин їсін тин васіхеуоу[са]и єнтф техеїф недані і н і деспоін[а] өєфи оураноу генесі......

"For gout: a proved (remedy). (Magical signs and letters). Write upon a piece of silver when the moon is waning; then, pouring warm (water) of the sea, read the name. Labor diligently. Do this for forty-four days (saying): I invoke you, great Isis, ruling in the absolute blackness, Mistress of the gods of heaven by birth, (Magical names or words)."

6.6.10 JAUNDICE

¹²²³ Translation: Worrell: 1935: 34. with slight modifications.

¹²²⁴ πολαγραν, ποδάγρα. Cf. ποδάγρα "gout of human being". Liddell/Scott/Jones 1996: 1425b.

¹²²⁵ Translation: Worrell: 1935: 28.

The following recipe presents two types of jaundice the black and the yellow kind (he refers to it by using the word πνογβ "gold", which certainly indicates the yellow jaundice):

P.Macq. I 1,¹²²⁶ p. 15, ll. 3–7

еіктерос. 1227 каме.стікеме. [[..]] піпер.нр $\overline{\Pi}$ і. маречс ω . н ф ω пе папноув. пе моу мер ω те. ар<т>нмесіа. ау ω мароух ω км мсоус ω . паст пмооу.

"Black jaundice: Black cumin, pepper, wine; let him drink (it). Or if it is that of the gold (i.e. yellow jaundice): milky water, wormwood; and let them wash (it) and drink (it). Boil the water". 1228

6.6.11 LIMB PAIN

Vienna, Nationalbibliothek K 08638 Pap¹²²⁹ is an amulet to heal the leg of person named Berese son of Kasele from every pain and every wind. In the beginning of the spell there are three magical names, the first name "Eroukh" is written in a Greek ring signs design, the second and third is "Baroukh". Here the magician beseeches the "Lord God Almighty" to remove the pain at the same time he recites this amulet. He asks him to do this at the same time when the magician recites the spell or when the client wears the amulet, by entreating him saying "I entreat and I invoke you today". The illnesses which mentioned in this spell are pain and wind (τηγ) which afflicted the leg or foot of Beres. τηγ means wind or breath, and appears as an illness in medical recipes, e.g., in Chassinat Papyrus (Ch 69)¹²³⁰ as an illness that afflicts the stomach; however, here the wind appears to cause the leg pain, which may reflect the effect of wind or polluted air on the body health:

Vienna, Nationalbibliothek K 08638 Pap

¹²²⁶ P. Macq. I 1, parchment codex composed of 20 pages, 12.7 x 11 cm, dates back to 7th-8th cent. CE; metadata at Trismegistos [https://www.trismegistos.org/tm/detail.php?tm=113926], (last accessed: 05.10.2020). Choat and Gardner 2013.

¹²²⁷ Black jaundice is treated in another magical prescription (*ACM*, 305, no. 133). Also, medical recipes recommended treatments for jaundice in Cod.Med.Copt., p. 243, recipe no. 28; Cod.Med.Copt., p. 244, recipe no. 42. See (5.14.12 and 5.14.12).

¹²²⁸ Choat and Gardner 2013: 73.

 $^{^{1229}}$ Stegemann 1934: 22; 52–53. Parchment 8.5 x 6.8 cm, dated to 9^{th} – 10^{th} cent. CE.

¹²³⁰ (See 5.6).

ερογχ βαρογχ βαρογχα τιςοπς 1231 αγω † παρακάλι νηνόκ εποογ πίχοεις επνογτε ππαντωκράτωρ χεκαάς εταβί τίτκας νίμ είτης νίμ εβολ εί τπατ εβέρες πώε νκάςελε νετέταλδο έβολ εί είςε νίμ αιό αιό ταχη αλφ_α λέων ταχη ςατώρ αρέδω [τε]νέδ ωδε ρα ρωδός φω[ν]η ανήρ [] α ε ή 1 ο γ ω

Eroukh, Baroukh, Baroukha. I entreat and I invoke you today, O Lord God Almighty, that I take every pain and every wind away... from the leg of Beres, the son of Kasele, and that I heal him from every sickness, yea, yea, quickly, quickly! Sator, Aredo, [Te]ned, Odera, Rodos Alpha, Leon, Pho[n]e, Aner AEĒIOUŌ. 1232

6.6.12 MENTAL DISORDERS

6.6.12.1 MADNESS

The ancient Egyptians appear to have viewed mental diseases as an influence of evil and supernatural spirits. Consequently, mental diseases were always treated with magic rather than medical recipes, as they thought that they were caused by a supernatural power. There are three different Coptic texts to treat mental diseases or madness, with every recipe invoking the hidden power to overcome this disease. The reason for this affliction with madness is the demon, who possess the person, and cause the fear and chill, in P.Mich. MS 136, Il. 169–175, the madness is directly connected directly with demon possession. Hence, the recipes contain a supplication with the form ato ato taxh taxh, which makes the servants expedite the fulfillment of the seeker's need from what is required. It appears that the mental diseases could afflicted any person regardless of his learning or civil position, P.Köln XV 641 attested that the madness afflicted the caxo "great scribe, village scribe".

The Greek noun μανία means "madness" and refers to the defect of the mind. It appears in the following two medico-magical recipes *ACM*, 101, no. 54, and P.Köln XV 641. The latter is a recipe to protect a person form the madness that is connected with crying and fear. It ends with the request ΔΙΟ ΧΑΧΗ ΤΑΧΗ:

P.Köln XV 641 (4–16 right)

¹²³¹ Cf. сопс "pray, entreat, comfort". Crum 1939: 352a.

¹²³² English translation from the German by Stegemann 1934: 52–53, with slight modifications.

¹²³³ Nunn 1996: 104.

очробіс букочі сахо буріме бунруюте (magical signs) тахо мпетфоне 21 †20TE POEIC $\overline{A}\overline{A}$ 2M TIIPINE MN †MANI a': alo alo taxh taxh

A guard for a young scribe who is crying and is afraid: (magical signs) Free the sufferer from this fear! Protect NN from this weeping and madness. Yea! Yea! Quickly, Quickly!. 1234

ACM, 101, no. 54¹²³⁵ contains an incantation that beseeches different powerful utterances, the ALPHA formula, the series of seven vowels, and various names, to heal Ahmed son of Mariam; here the madness is connected with chill and evil eye.

P.Mich. MS 136, ll. 169-175¹²³⁶

етве истиафине епечунт' рфаи печунт өхіве ерооу еуо \bar{n} даімоніон αλρε τες сτηλη τρεογλο [signs] [square with rounded top, filled with mixed letters and signs] χογβαρωχ [Erasure] νέτχωνε [left] ματογχε [right] caρη έογωνε ποότε

For those that are about to be sick in their mind(s), if their mind(s) troubles them and they have a demon: His stele makes them get better. (signs) (magical signs and letters in a stele-shaped area) CHOUBAROCH. Those who are sick, grant healing. Heal. Write it upon a vulva stone. 1237

6.6.13 PAEDIATRIC

There are three recipes to magically treat a child: the first is for crying (ACM, 101, no. 54); the second is for every sickness and abdominal pain, and contains the legend of Jesus and the doe, which in labour. It also includes the narrative of the goddess Isis, who brings help to the suffering childbirth. Certainly, the primary purpose is the prevention or cure of the umbilical hernia of the

¹²³⁵ For the full text (see 6.6.7).

¹²³⁴ English translation from the German Schenke 2017: 260.

¹²³⁶ Seven small parchments 4 1/8 x 4 7/8 cm, from a Coptic book; the first leaf has been lost, and the actual text begins with page 2. Worrell 1939: 17-37; Meyer and Smith 1994: 83, no. 43.

¹²³⁷ Translation: Worrell 1935: 34, with slight modifications.

child. The third recipe is for a little child who pisses himself in the night according to Kropp ¹²³⁸ (BKU I 26):

ACM, 95, no. 49, vo, ll. 5-7

иктаркооу ипфентфе иноүт еткоте етделпе де фоне иін дідіс иін ді $\frac{1}{2}$ тітакас иін етдиднту енін пфи иін наречло итехноу анок етноуте $\frac{1}{2}$ досіс $\frac{1}{2}$ се стілітальсо.

"You would summon the three hundred vessels that are around the navel: Let every sickness and every difficulty and every pain that is in the belly of N. child of N. stop at this moment. I am the one who calls; the lord Jesus is the one who grants healing". 1239

BKU I 26, ll. 12-14

оүфире коүі са... фе тоуфи гара \dot{q} ф. $\dot{\eta}^{1240}$. Схат 1241 спа $[\lambda \varepsilon]$ кт ϕ^{1242} хвх ϕ врү ис тевоуамоу фаб ϕ

A little child ...the night under him. Take(?) the testicle to cooked-burnt rooster ..that he may eat them, he will stop. 1243

6.6.14 POSSESSION

Possession was amongst the diseases that were only treated with magic. The prerequisite for the exorcism is the view that the power of evil spirits can harm the people, in particular those that were possessed. Humans had two possibilities of interacting with evil powers: they could ask them for help by using them in evil spells and even in curses; or they could ask God to defeat them as enemies and take them away. The

¹²³⁸ Kropp 1930: 3.176.

¹²³⁹ Translation: Meyer and Smith 1994: 97.

¹²⁴⁰ May be σ̞ລּּ̞חְ?! σ̞ລ̞̄̄̄̄ π̞ϵ ϫձ(ι)τ.

¹²⁴¹ хат stands for хагт. Crum 1939: 791а.

¹²⁴² Cf. ἀλέκτωρ "cock, rooster". Liddell/Scott/Jones 1996: 62b.

¹²⁴³ Author's own translation.

¹²⁴⁴ Kropp1930: 2.207.

Freer Collection, Fragment 10, 1245 presents an invocation to the God demanding healing and protection. It seems that, this prayer was composed for the oppressed, or possessed person, as the healing of the possessed is explicitly expressed as the goal in the epiclesis.

BKU I 26b, contain two recipes to treat for a possessed person:

BKU I 26b, ll. 16-21

......тааү еграі га-петш итемшиіш[и] мепатаү еңгік. фав фавда 1246

.... Lay them down who is possessed...to the magic... He will be healed.

BKU I 26b, ll. 25-28

пессіпар парожу євах течфауєї секу тса оурфні ечф итенфиюн ефан† исап емені єнфан† єндаау євсф ____

Spread out her liver, let it dry, grind it, give it to possessed one to drink. He should drink three times a day for three days.

In ACM, 314, no. 134, 1247 Gregory's prayers give a direct order to an evil power to move away from the body:

ACM, 314, no. 134

анок грнгоріос пемера міпноутє єтойе: \dagger паракалеї мімшти йтшти йхінбонс ній міпноб йран єтерестє міпейшт міпендоєїс їс пехс пноутє навареам мін ісак мін іакшв йоє єтетно мнос еїоусоп: ка ноумінтнагос те: $\ddot{\rm H}$ генеідшхон: $\ddot{\rm H}$ ей манфінфе не не $\ddot{\rm H}$ еїн манфінфе не $\ddot{\rm H}$ гін мін $\ddot{\rm H}$ гін стрететіне ре $\ddot{\rm H}$ генийнтне $\ddot{\rm H}$

 $^{^{1245}}$ Thick vellum, 20×31 cm, folded in the middle. William H. Worrell 1923: 2.126-28, 323-25, 381-83; Kropp1930: 2.118-19 gabla stands for gaqlo.

¹²⁴⁷ (page 4, ro), ll. 1–25 (page 4, vo), ll. 1–6.

ренинтатараже: ин ренинтоай грач ин ренткас иміне нім кан ететненту ипран ипжовіс: итетнанхарей нити савох има нім етоунафар йтепросеухе йенту. Е йсекас йенту: ин нетип ерооу тироу: йтетнваж поуапоуа ежй тапе ноуон нім йтачение ийнати

I am Gregory, the servant of the living god. I invoke all your violent deeds, by the great fearful name of the father of our lord Jesus Christ, the god of Abraham and Isaac and Jacob, all at once, whether they be magic, or idols, or they be in places of worship.....Be afraid of the name of the lord, and retreat from wherever this prayer shall be read or deposited and from all those who belong there. But each one of you descends upon the head of anyone who is like you, or whoever sends you, upon them and those who consent with them. 1248

P.Macq. I 1, p. 16, ll. 5-9

фүхактир, етве фине. нім. мнетфентемонїон, адине. ехие. савашо, Унпікеоуа. Фатеві вахфа. архахамарпа, хаєвінх, хрс __а а ф інс о а

Amulet for every sickness and those who are possessed: (write?)

ADŌNE ELŌE SABAŌTH on the other one, so that he comes to (?)

ALPHA ARCHACHAMARPA CHAEBIĒL Christ. A

PH

Jesus

O

A

¹²⁴⁸ Translation: Meyer and Smith 1994: 316.

P.Macq. I 1, p. 12, ll. 17-20

.а. оүршис. евфентенши. $^{\mathbf{A}}$ сүнсү. итафер. $^{\mathbf{C}}$ гасчалтон. таүсоү..в. етве фшис. иім. $^{\mathbf{A}}$ сүспанфи. $^{\mathbf{C}}$ ганоүніакоү. $^{\mathbf{C}}$ таүсоү.

"A man who is possessed: Say the formula on linseed oil and pitch. Anoint them." 1249

P. Macq. I 1, p. 13, ll. 7-11

оүршме євщентемон. Γ_{P^*} нісникеніа. $\bar{\Gamma}$. пітакінон. мор оуєї єпецмоут. моур єпецхнаг. снау. \clubsuit єупетєгнак. [[є. пр]]

Someone who is possessed: Write the kin (on) three slips. Bind one to his neck; bind (the others) to his two forearms. ¹²⁵⁰

6.6.15 SKIN DISEASES

6.6.15.1 THE PUSTULE DISEASE

Cod.Med.Copt., p. 241, recipe no. 2

етве тпаще \cdot †тарко мнок паггелос етхігнот гіхи фине нім нирачеї ехи приме, маліста пещимиє паі \cdot нираччі мприме гм печ// герос, маре †паще єї єволги ма $\overline{\Delta}$, орінл гаврінл рафанл . Пет // тивг фине нім маречло. Исі ма $\overline{\Delta}$ нофпч . 21 нрп .

Concerning the pustule: I adjure you, the angel who gains grace for every disease that comes upon man, especially this disease, that takes man in its time, may the pustule leave NN! Oriel, Gabriel, it is Raphael

¹²⁴⁹ Translation: Choat and Gardner 2013: 67.

¹²⁵⁰ Translation: Choat and Gardner 2013: 69.

who entreats, every disease, may NN, son of NN, be healed! Blow it over wine.

P.Macq. I 1, p. 15, l. 14

ογπαϊαε. ¹²⁵¹ μρπ ε μοογ.

A pustule disease: Wine or water. 1252

6.6.15.2 THE WART

P.Macq. I 1, p. 15, ll. 17-19

oykion elgon 1253 fnikzon 1254 acfalakon 1255 terok. LHC ek toy elgoy. Tazcoy. Coyalo.

A wart: Olive-oil, palm-leaf, asparagus, pickle (?). Press out the Olive-oil. Anoint them, and they (the warts?) will cease. 1256

6.6.16 SPLEEN DISORDERS

P.Macq. I 1, p. 15, ll. 22-24

оүноею, оүнрпа. ечмег стікеме. ечгентіште. нфомет игооу, маресф.

A spleen: A wine filled with black cumin, being in dew for three days. Let (the person) drink (it). 1257

¹²⁵¹ Disease produces pustules, swelling.

¹²⁵² Translation: Translation: Choat and Gardner 2013: 73.

¹²⁵³ ελεον, ἔλαιον "olive-oil". Liddell/Scott/Jones 1996: 527b, Choat and Gardner 2013: 73 translate it "oil", and I would like to follow this translation in the recipe.

¹²⁵⁴ Cf. φοῖνιξ "date-palm". Liddell/Scott/Jones 1996: 1948a.

¹²⁵⁵ Cf. ασφαλακον, ἀσφάραγος "asparagus". Coptic Dictionary Online [https://coptic-dictionary.org/entry.cgi?tla=C8514], (last accessed: 01.10. 2020).

¹²⁵⁶ Translation: Choat and Gardner 2013: 73 with slight modifications.

¹²⁵⁷ Choat and Gardner 2013: 73.

6.6.17 SWELLINGS

P.Macq. I 1, p. 15, ll. 1-2

ЕДОПЕ ОТА ЕЧДІАВЕ АРМАРА. НРП. МАРОУСО.

If someone is swelling: Rue, wine; let them drink (it). 1258

The magico-medical recipe P.Köln XV 641 (14–16 left) mentions King Solomon and his demon, to recover from the swelling, which was caused by the demon. It is a common belief of the Abrahamitic religions that God gave more wisdom and insight to the king and prophet Solomon than anyone else (1 Kings 3:12); Quran (Al-Anbiya, 21vs79); (An-naml 27vs15); New Testament (Luke 11:31). He was also unique with miraculous abilities and miracles, he was able to harness demons, and God Almighty gave him the knowledge of judging and praising the mountains. The blessed God and Almighty taught him the logic and the language of birds, including all the languages of animals, hence he understood what other people did not understand about them, and he used sometimes talk to them, as was the case with the hoopoe and ants (An-naml 27vs15). In the Hellenistic period, King Solomon was considered a great magician who practiced (white) magic and had a certain power over spirits and "everything that was hidden". ¹²⁵⁹ In this papyrus from the 10th-11th century CE, the authority of Solomon over demons *is emphasised* пехе перро сфафион ego Y n eпeqthhology "The King Solomon said to his demon", the use of the preposition egoyn "to" with пехе which emphasises the notion of speaking to the jinn who is appointed to bring treatment:

P.Köln XV 641 (14-16 left)

ол ие ишубье еиуі . ележе иерьо сфутной. ебо λ ли епельнюйіой. xе едве ольтые елфуве: иеxе иерьо сфутной. ебо λ ли епельнюйіой. xе

¹²⁵⁸ Translation: Choat and Gardner 2013: 73 with slight modifications.

¹²⁵⁹ Särkiö 2004: 306-307.

For a man who swells: The King Solomon said to his demon: "What is the

remedy for this?" [...]. 1260

6.7 NAMES AND MAGICAL WORD IN MEDICO-MAGICAL TEXTS

The name of God, a deity, an angel or a demon is considered a part of personality and bears a specific

meaning. The only one who knows the secret power name of a certain god or a demon has an easy way to

call him. Grafe¹²⁶¹ states that "Not all the magical words are understood, or even understandable. Where

we think to see through them, they derive from Near Eastern languages, especially Egyptian, and are names

or epithets of divinities. The magician thought them all to be names ὀνόματα or ἐπωνυμίαι."

In Coptic medico-magical texts a frequent palindrome is used, sometimes the single palindrome is found

in different variants; thus, I have found it is useful to list the most common palindromes used throughout

the magico-medical texts:

AKRAMA CHAMARI: It is used as the name of an angel, ¹²⁶² it frequently appears in an alternate form

(Abramachamari, followed by Mamna and the derivation Chamariakracharan). 1263

Abraxas: A Gnostic name of the highest god. The numerical equivalent of the spelling of the name Abraxas

has seven letters that equal to three hundred and sixty-five in Greek. The original letters of Abraxas is a Greek

name, spelled AB Σ P Ξ that add up to 365: A = 1, B = 2, Σ = 200, P = 100, Ξ = 60 = 365. It is usually combined

with Iao Sabaoth Abraxas and Jesus Abraxas. 1264

Marmaraoth: Syriac name for "lord of lords".

The Seven Archangels: 1265 (Michael, Gabriel, Raphael, Suriel, Zetekiel (Zedekiel), Salathiel.

¹²⁶⁰ English translation from the German Schenke 2017: 260.

1261 Graf 1991: 191.

1262 ACM, 304, no. 133 (P. 20, 1. 5); P. Ryl. Copt. 103.

¹²⁶³ This name is maybe derived from the Hebrew, according to Scholem 1965: 49–100.

1264 ACM, 93, no. 47. "You are Ax, you are Abrasax, the angel who sits upon the tree of Paradise, who sent sleep upon Abimelech

for seventy-five years!".

¹²⁶⁵ Kropp 1930: 3.72. Their names are not uniformly transmitted, neither in Jewish nor Greek nor Coptic tradition. The constant change like XXXII show "Michael, Gabreil, Abael, Suriel, Raphael, Asuel, Saraphuel that are right from the arm of the

father", "Raphael,, Soriel, Setekiel, Anneal, R (ague, e)l".

294

Four Living Creatures: Alpha, Leon, Phone and Aner. Alpha is the bull; Leon, the lion; Phone, the eagle; and Aner, the man. They represent the four Evangelists."¹²⁶⁶

The four bodiless creatures the names of the four bodiless creatures [AKRAMMATA PERITON SOURITHION PARAMERAO], used in amulet to heal and protect a woman.

The **seven Greek vowels**: They are widely used, wither individually (as in Δεμιογω) or every vowel repeated singly seven times (ΔΔΔΔΔΔ, 6666666, ...). They were used in other variations as well.

The twenty-four elders: "Heavenly beings who surround the throne of god in Revelation; in ritual texts they are usually named in alphabetical order according to the twenty-four letters of the Greek alphabet: Achael, Banuel, etc." ¹²⁶⁷

ADONAI: "A name from the Hebrew Scriptures linked to the ineffable name of God (YHWH, often vocalized as Yahweh). A healing spell invoked demons - ENDRO ARME OTHNI KENTA ENTAKO TANA, for medical problems and to protect the house from creeping things." 1269

RING SIGNS: the ring drawings always on the last lines.

Fth 'Fthp' (Coptic: qΘ or φΘ, Greek: φΘ): it is number ninety-nine, representing the Greek αμήν "Amen". 1270

Iaeobaphrenemoun formula: it is the abbreviated form of the longest characters aeobaphrenemouniothilarikriphiaeueaipirkiralithounuom-enerphaboeai; Iaöthbaphranemounouthilörikeiphiaeueaiiphirkialithounaomenebraphaerphaboiai, in the Coptic 'Wizard's Hoard' text.

σεσεγγεν βαρφαραγγης: the Greek term Sesengenbarpharanges, "word of power known from the magical texts referred to in the baptismal ceremony of the Gospel of the Egyptians, where Sesengenbarpharanges

¹²⁶⁶ Meyer and Smith 1994: 386.

¹²⁶⁷ Meyer and Smith 1994: 391. The complete list of the twenty-four elders in: Kropp 1930: 3. 131.

¹²⁶⁸ Meyer and Smith 1994: 387.

¹²⁶⁹ Meyer and Smith 1994: 90–91. Vienna, Nationalbibliothek K 08303 Pap (Rainer, AN 197).

¹²⁷⁰ Kropp 1930: 3. 233 &398.

is described as a purifier". 1271 It occurs in the form Sesekinbarphakes, without the usual combination with Ablanathanalba. 1272

σεμεσιλαμ: 1273 "Semesilam also occurs once but is preceded by the derived jumble Semesi Emieueai Ham (20.2–3)". 1274

Chara: mother of Garbêlêa in London MS OR. 6948 (2).

<sup>Meyer and Barn stone 2005: 816.
Mirecki 1994: 459. (19.2–3).
Kropp 1930: 3. 125 §207.
Mirecki 1994: 458.</sup>

7. UNCOMMON INGREDIENTS IN COPTIC MEDICAL TEXTS

A good analysis of various substances in medicinal or magical texts is complicated and difficult to translate into current terminology, since names of plants, animals and minerals have their original difference; or several names refer to a single element, or many substances are reported using with the same name.

Here, the names of drugs are given, however the significance of those cannot be expressed, or at least only a very high presumption can be given. I have divided them into nine groups: medicinal substances from plants, the origin of the animal, insect resources, reptile sources, mammal resources, bird supplements, mineral resources, aquatic organisms and human resources.

7.1 PLANT RESOURCES

Herbs played a major part in Coptic medicine and occupy a great amount of ingredients in Coptic medical recipes such as opium, myrrh, aloe, artemisia, mint, peppermint, various plant oils (rose oil, leaf oil tree, tree wood coal oil, linseed and castor oil), etc. Generally, plants in Coptic medical texts can be divided into medical plants and ritual plants.

7.1.1 како дафин "Poison (bad) laurel":

The following recipe presents an instruction on the production of a pesticide, i.e., Poison Laurel, to remove harmful animals by using vegetable matter, animals and minerals; in this case the arsenic may have been used for its toxicity in contrast to other recipes where it was used as a medicament:

P.Mich. MS 136, ll. 176-182

етве хатве нім екоуфф етреуєї євох $\overline{\varrho_{\rm H}}$ пекні оуфни йхахванн 1275 оуфни йсатнракеїс 1276 оуфни йкийє йваампе тахоч єграї єх $\overline{\rm H}$ оу $\overline{\rm XBC}$ йөє йоуги[.....]кхамє йкако 1277 дафин 1278 каач $\overline{\varrho_{\rm H}}$ пиооу фант $\overline{\rm H}$

¹²⁷⁵ хадванн, χαλβάνη "galbanum, the resinous juice of all-heal (fragrance)". Liddell/Scott/Jones 1996: 1971а.

¹²⁷⁶ сатнракеи: is for сатнракеи: σανδαράκη as in Ch 10; Ch 153; Ch 182. Cf. сантарахнс, сатнракеи: "realgar". Coptic Dictionary Online [https://coptic-dictionary.org/entry.cgi?tla=C10404], (last accessed: 18.01.2021).

¹²⁷⁷ Probably from κόκκος. Crum 1939: 101b.

¹²⁷⁸ Δαφνη "sweet bay, Laurus nobilis". Also, it appears in Ch 169 as ταφνε, and in Cod.Med.Copt., p. 243, recipe no. 34 as κωκκωταφνη, Arabic (الغار), Kircher 189.

For any reptile that you wish to make them go forth from your house: A little galbanum, a little realgar, a little goats' fat. Put it upon a coal in the manner of a Poultice of poison laurel. ¹²⁷⁹ Put it into the water until it dissolves (?), ¹²⁸⁰ and sprinkle the house. ¹²⁸¹

7.1.2 anam 1282 nпнр "Anash the sun":

Ch 121

(255) оүҳүрөн \bar{n} тіахар \uparrow оү 1286 етве \bar{n} ноне еөөөү 1287 хіванос \r \bar{a} оүшн \bar{n} хартне етршх (256) оүшн \bar{n} анаш \bar{n} прн етршх өнөөү \bar{n} и неүернү фантеүснгіста хрш фантеусригіста хрш ерөөү \bar{n} ҳүрөн

(255) Paper powder for gangrene of bad nature: Incense four drachmas, part of burnt paper, (256) burnt ragweed one part; grind them together until consistency; use for them in powder.

^{1279 &}quot;bad laurel". Worrell 1935: 35.

¹²⁸⁰ "Goes". Worrell 1935: 35.

¹²⁸¹ Author's own translation.

¹²⁸² Cf. anao "name of a plant?". Crum 1939: 12b. cf. anao "buch of flowers". Coptic Dictionary Online [https://coptic-dictionary.org/entry.cgi?tla=C158], (last accessed: 14.11.2019); Westendorf 1977: 487.

¹²⁸³ Till 1905: 106.

¹²⁸⁴ Kircher 1643: 196.

¹²⁸⁵ In many places like Abusir and Alexandria. Chassinat 1921: 243; Muschle 1912: 2, 992.

¹²⁸⁶ τιαχαρτογ, διά χάρτου, Abd ar-Razzaq (p. 133) said that 'قرطاس' (χάρτης), is Egyptian paper made from papyrus بردى. Also in Ch165, for 'Heratique papyri' χαρτης πειερατικον. **Ρ**αρτης, Arabic ورق الكتابه. Chassinat 1921: 242.

¹²⁸⁷ сөөөү, стгооү, *malus*, bad. Chassinat 1902: 243; Crum 1939: 731a.

7.1.3 magt nopos "intestines seed":

This plant's name literary means "seed intestines", and is reminiscent of the plant named chickweed. ¹²⁸⁸ Crum, ¹²⁸⁹ records this expression without any meaning. Bouriant ¹²⁹⁰ translates it into juice of herbs, it used to increase breast milk: ετβε ενκιβε ετρεγερερωτε "For breasts, so they have milk" (see 5.15.4).

7.2 ANIMAL RESOURCES

Ingredients of animal origin were often used in various treatments, including milk, fat, skin, teeth, dung and blood. Moreover, specific parts and organs of animals were added into medical or even magical remedies. Some of these ingredients only appeared one time, and some are completely unknown.

7.2.1 **Animal milk:**

7.2.1.1 ερωτε νέω "Ass's milk":

P.Mich. MS 136, Il. 200-202

For teeth that hurt: a small amount of warm milk from an ass. Wash out your mouth with it, and it will get better. ¹²⁹²

7.2.1.2 ηθοςψε, βεξχο, ερωτε σαμογλ "Camel's milk":

The milk of camel appeared only one time in the medical recipe Ch 56, which prescribes a special kind of collyrium called ογκολλιον ντε απα κγλιλος πεοφος ναρχηματρος "Collyrium for Apa Cyrille, the clever official physician", used for various eye disorders (see 5.16.18).

111 1931a. 107.
1289 Crum 1939: 832a.

¹²⁸⁸ Till 1951a: 107.

¹²⁹⁰ Bouriant 1888: 378.

¹²⁹¹ Cod.Med.Copt., p.215, recipe no. 9.

¹²⁹² Translation: Worrell 1935: 36, with slight modifications.

7.2.1.3 epate negay "Sow's milk": 1293

P.Mich. MS 136, ll. 165-168

ефине оусуме те ехсшск ет+тқұс оубопе мерште нешау тахи

If it is a woman whom it has continued to pain: A small quantity of sow's milk. Give it to a little sweet wine. Let her drink it. She will be healed. 1294

7.2.2 Animal's droppings:

7.2.2.1 ชูลc กิดของหญ "Wolf's dung": 1295

Ch 164

(320) оүандын ете фаүу евох гій йршме жі нак йоүпнры йн оүбөш йөнж π^{1296} йн оүбөш (321) йөзхэф \equiv^{1297} йн оүбөш 1298 йн оүбөш бөнж оүшни йнег ме өнөөү йн неүернү кахшс (322) йн пінріп йапас йпркааү еүбенинүт епегоуо \uparrow епетре тандын гішч фачхо гій оүбепн

(320) Herpes zoster that coming out in a man's body: take minium, raven's dropping, hyena droppings, wolf (321) droppings and a little fine oil; crush them well together (322) with old wine, do not leave

¹²⁹³ The sow or donkey's milk, was used from the ancient Egyptian medicine in treating the children. Strouhal, Vachala, Vymazalovà 2014: 106.

¹²⁹⁴ Translation: Worrell 1935: 34, with slight modifications.

¹²⁹⁵ The dung (hes) of animals was the most magical ingredients which used in magic in ancient Egyptian medicine. Strouhal, Vachala, Vymazalovà 2014: 27.

^{1296 900} йөн хп, 2ас йавоүк. Chassinat 1921: 283.

¹²⁹⁷, θω νήλεψ≡, γας νησιτε. Chassinat 1921: 283.

^{1298 900} NOYCIIBA, гас поусина. Chassinat 1921: 283.

them get too hard; apply to the one who has herpes zoster on him, he will be healed quickly. 1299

Wolf's dung was used against intestinal pains, and the author mentions that it is a proven remedy so he advises the healer to take his salary in advance Ch 226 (see 5.3.8).

7.2.2.2 γαιρε νογγαρ "dog's dung":

Cod.Med.Copt., p. 242, recipe no. 18

екфанхі итраірє ноугар игнорс поу// тоіс игвоос гіхи не ψ фра, нере флекма фине игнтоу

If you take dog excrement, put them in a cloth, and apply them on the psore, and inflammation, they will disappear. ¹³⁰⁰

7.2.3 ogobe ñogwna "Wolf's tooth":

The wolf's tooth used only one time in Ch 224, as a remedy to treat the intestines problems. The recipe recommended to place it upon navel of the sick person (see 5.8.3).

7.2.4 eywap ñoywnw "Wolf's skin":

The skin of the wolf appeared only in Ch 224 which recommended to use the tooth and the skin of the wolf to treat the great intestines: "Someone whose great intestines is sick: (take) a wolf's tooth; put it in wolf skin; attach it to the patient's navel; he will recover" (see 5.8.3).

7.2.5 κερητ νοςο, κερητ ναια "Pork kerêt":

¹²⁹⁹ English translation by me of the French translation by Chassinat 1921: 283.

¹³⁰⁰ Author's own translation.

Only the fat of the pork was used as medication. Ch 175 is the only example that describes this medicament being used in Coptic recipes. Together with Copper liqueur and green spanner, it provides a remedy to treat abscesses (see 5.16.21). Pork- *kerêt* is supposedly like the pork fat, which makes the other drugs salvable. Crum¹³⁰² translates the meaning of Kepht into *a part of swine*, without further specific meaning.

7.2.6 сює пвампє "Goat gall":

The gall of goat used against cataract and pillowcase in Ch 42 (see 5.6.4), and prescribed also for some specific internal organs in Cod.Med.Copt., p. 243, recipe no. 28: "leprosy, itching, the liver disease, jaundice, and kidneys" (see 5.16.19). Furthermore, in the following recipes:

Ch 195

(361) chos \bar{n} sine \bar{n} bampe \equiv hc $m\theta\psi$ zax tazoy \bar{m} n neysphy xpw

(361) Liquid gall (?) of goat, honey without water; mix them together; apply.

P.Sarga 21

одсіфе ивунце бієвіф ц[моууд учиє цвуў иув[ф]к біноод иєн \dot{x} фу біевіф \dot{z} еї ео[…]одноиє ц]єбнои єдфуве иоёбікои] \dot{y} іює бінць \dot{z} ії біне \dot{z} не \dot{z} 1 ехіив]одвуу єв \dot{z} 1

... the] fever which the medicaments (...) and wine and olive oil. Apply them to an eye that waters: ... of the eye of raven on water of onions and honey. Give (them) to [..] a goat's gall and honey ... ¹³⁰³

According to Pliny (XXVIII, 47, 3), a goat's blood cures nyctalopia (the inability to see in dim light or at night). The gallbladder of a goat, together with honey, is good against fogs in eye sight. It should be used

¹³⁰¹ Till 1951: 105.

1302 Crum 1939: 117b.

¹³⁰³ Translation: Crum et al.1922: 52.

with one-third part of white hellebore, to remove white water; with wine for the corneas, and with cabbage juice for the eyelids (XVIII, 47, 4). 1304

7.2.7 πεγπαρ νουτρακον "Liver of goat":

The use of goat liver is common among the ocular remedies, in particular when mixed with honey, as shown here. The liver of animals aware of great avails as argued by Nunn: 1305 "The liver is the most useful animal products as it contains 90 per cent of the body store of vitamin B_{12} , essential for the prevention of megaloblastic (pernicious or Addisonian) anaemia. Another main therapeutic implication is deficiency of vitamin A causing night blindness, which can be treated by ingestion of liver, a rich source of Vitamin A. There is one instance of raw liver being recommended for taking by mouth, for 'a woman who cannot see' (Kahun 1) and one of local application of cooked liver for a case of *sharu*-blindness (Ebers 351)". In Chassinat papyrus recipe Ch 188, goat liver "neytrap \bar{n} oytpakon" used for treating the mist which cased darkening in the eye, when added to the gall of goat and honey, then the eyes should be rubbed with blood of goat (see 5.6.7).

7.2.8 ογανιεφαρός \bar{n}_{x} (λο ξλx "Otter brains":

The only recipe uses the brain of an otter is in Ch 99, it used to treat the eyelids:

Ch 99

(193) етиптре йвоүге рат тахоү ере \mathfrak{D} бахеч йг хі йоүхигефарос 1306 йх уло хух 1307 (194) ете печан 1308 пе йтечапе йи оущим йсхістоу 1309 йг тахч ерооу меурат йо $[\gamma]$ ар $\overline{\mu}$

(193) To prevent the eyelids from producing itchy eyelashes (the eye), the eyelashes being removed, take an otter brain, (194) that is to say

¹³⁰⁴ Bostock, and others 1855: 336.

¹³⁰⁵ Nunn 1996: 150.

¹³⁰⁶ ανκεφολος, ἐγκέφαλος. Cf. ἐγκέφαλος "within the head, brain". Liddell/Scott/Jones 1996: 472a.

¹³⁰⁷ Νχ (λο Σλχ, ογγολ (lit. 20p) μοογ, Arabic كلب الماء 'dog water'. Chassinat 1921: 215.

¹³⁰⁹ cxιστογ, σχισιός. cloven, divided. Liddell/Scott/Jones 1996: 1746b.

that the brain which is in its head, and some fissile stone; give it to them, they will no longer be covered with eyelashes. 1310

7.2.9 eig ñthat ñognam ñeeid "Hoof of the right paw of an ass":

The calcined donkey hoof is found in the Ebers Papyrus as a remedy for the elimination of the graying (LXV, 21): (LXV, 21): (hoof of the burnt ass...". Pliny (XXVIII, 47, 2) mentions that the donkey hoof ashes when mixed with donkey's milk can heal the pillowcases and stains of the eyes. Chassinat argues that materials borrowed from the right leg of the quadrupeds have particular virtues. He adds that the marrow taken from the right fore-leg of a cow is useful for the infections caused by eyelashes and commissures of the eye. 1312 Ch 208 prescribes a remedy to treat the cιος "blot" in the eye by using the hoof of the right paw of an ass, which grinded with honey (see 5.6.6).

7.2.10 песноч ппетракон "Goat blood":

In Chassinat papyrus recipe no. 188 (Ch 188), recommended the blood of goat for treating the mist in the eye. As the recipe recommended the patient should firstly mix the liver and gall of a goat with honey then rub the eye with goat blood (see 5.6.7).

7.2.11 ογταπ ππεσοογ "Horn of the sheep":

P.Mich. MS 136, Il. 186-193 recommended to use the horn of the sheep against the pustule which appears in the face, the recipe recommended to burn the horn of the sheep, and mix it with some incense from abroad, palm branches, uncorrupted urine and vinegar, and the patient should apply the remedy by using ibis feather (see 5.16.12).

7.2.12 γαλεςογη "snail":

Ch 54 is the only recipe that contain the snail გωλετογη, Arabic خلزون among its ingredients of eye remedy: "Gold cadmia, antimony, cuttlefish bones, snail, white lead, royal salt, pepper,

¹³¹⁰ English translation by me of the French translation by Chassinat 1921: 215.

¹³¹¹ Chassinat 1921: 302.

¹³¹² Bostock and others 1855: 335.

long pepper, cloves, same weight of each, ammonia salt" (see 5.6.8). According to Ibn Sina says the calcined snail is useful for treating ulcers of the eye. ¹³¹³

7.3 INSECT RESOURCES

7.3.1 NOSH CNOY "Blood of ticks":

Ch 100

(195) Омеос он етве йвоүге хі нак й \bar{r} йф $_{\mathcal{F}}$ н 1314 \bar{g} н оү \mathbf{g} н \mathbf{g} н шпо \mathbf{z} 1315 (sic) йтекте \bar{k} н йв \mathbf{g} е 1316 (196) текпіріхе ймооу \bar{g} н пеусноч меур \mathbf{g} т йкесоп

(195) Likewise again: For the eyelids: take three ticks on a black cow; depilates eyelids; (196) rubs them with their blood (ticks), they no longer produce eyelashes.¹³¹⁷

Treatment utilising the blood of specific animals is an old practice. The Ebers Papyrus contains a few equations committed to this sort of treatment. To make it increasingly viable, the blood of animals of various species was sometimes combined. Thus the blood of the lizard, cow, donkey, pig, dog or goat was included in the composition of one of these preparations, as the previous recipe and *Pap. Ebers*, Pl. LXIII, 1. 12 etc. demonstrate:

Pap. Ebers 424 (63, 12 - 13)



¹³¹³ Chassinat 1921: 161.

in the scala no 44 (fol. 57, ro, 1^{re} col. 1.7 and 11). Chassinat 1921: 216.

¹³¹⁵ ыбы шпох, еге йкхме. Chassinat 1921: 216.

 $^{^{1316}}$ bwse for boyse.

¹³¹⁷ English translation by me of the French translation by Chassinat 1921: 215.

"Another [remedy] for removing curved eyelash hair in the eye: Myrrh1, blood of the lizard 1, blood of the Gold snips 1, turn the eyelashes and give it to it (= the eye) is healthy". 1318

Pap. Ebers 425 (63, 14 - 63, 18)¹³¹⁹

"{63, 14} Another remedy for not allowing a hair to grow into the eye after it has been cleansed: incense, rubbing on dung {63, 15} of the lizard 1, blood of the cattle 1, blood of the ass 1, {63, 16} blood of the pig 1, blood of the hound 1, blood of the goat 1, black eye shadow {63, 17} 1, Green eye shadow 1, finally grind to a uniform mass on this blood, after {63, 18} it finished. It does not grow (anymore)."

Pap. Ebers 426 (63, 18 - 63, 19)



"Another [remedy]: Blood of the gold snipe 1, edge (?) Of a new *hnw*-pot 1, {63, 19} Honey 1, finely grate, give to the place of that hair after it was eradicated". ¹³²¹

¹³¹⁸ Westendorf 1998: 1, 623.

¹³¹⁹ Medizinische papyri [http://www.medizinische-papyri.de/PapyrusEbers/html/kolumne_lxiii.html], (last accessed: 12.12.2019).

¹³²⁰ Medizinische papyri [http://www.medizinische-papyri.de/PapyrusEbers/html/kolumne_lxiii.html], (last accessed: 10.12.2019).

¹³²¹ Westendorf 1998: 1. 624.

In addition, tick's blood is found among medical texts of antiquity and the middle ages. Pliny (XXVIII, 7, 9) reports that, according to *Osthanes*, if the gentiles of the woman are rubbed with blood of the ticks from a black wild bull, she will lose her desire for sexual intercourse. Chassinat argues that a tick from the left ear of a black dog and carried in amulet calms all the pains (IDEM, XXX, 24,2). The same author indicates that the blood of a tick from a dog prevents eyelashes from growing back (XXX, 46, 2), which is in almost complete agreement with our text.

7.4 BIRD SUPPLEMENTS

7.4.1 копрос йосромпе "pigeon droppings":

κοπρος, χόπρος. Pliny (XXIX, 38, 6) recommends pigeon droppings against the pillowcase and also for a tiny spot upon the eyes: ¹³²⁴ Ch 89 also recommends pigeon droppings to treat the cataract and spot in the eye (see 5.6.4).

7.4.2 ογενος ννοίτε "Vulture blood":

Pliny (XIX, 24) mentions that a good remedy to treat is the blood of a vulture mixed with tar resin and root of white Chamaeleon, which is then covered with a cabbage leaf. 1325

Among known Coptic recipes Ch 200 is the only recipe that used the blood of vulture:

Ch 200

(367) ογα έρε νέμβαλ ω νθογες ετμτρέγρωτ νός εκφαντακνόν το ογανομ ννογρε εμέμμ ντ να νέμβαντ

(367) Someone his eyes have eyelids they do not produce eyelash when you pulled them out: sprinkle (eyelids) three times with hot blood of vulture, they will produce no longer eyelashes.¹³²⁶

1324 Chassinat 1921: 196.

¹³²² Bostock and others 1855: 364.

¹³²³ Chassinat 1921: 216.

¹³²⁵ Bostock and others 1855: 433.

¹³²⁶ English translation by me of the French translation by Chassinat 1921: 299.

7.4.3 δας ναβολκ "Raven's dropping":

Pliny (XXX, 8) mentions that the dung of a raven helps to cure a closed tooth, and a gum with shallow incisions. The medical recipe Ch 164 prescribed a remedy to treat a kind of skin diseases called anzonn "herpes zoster", which appears in the human body. The recipe recommended the raven's dropping to which mixed with hyena droppings, wolf droppings, oil and wine to be used against this disease (see 7.2.4).

7.4.4 γας νέσιτε "Hyena droppings":

Hyena droppings appeared only one time in Ch 164. It used against anzwnh "Herpes zoster", that affected the human body: ογανzwnh ετε ψαγς εβολ εν πρωμε "Herpes zoster that coming out in a man's body" (see 7.2.4).

7.5 REPTILES SOURCES

7.5.1 ογροπ "Serpent":

Ch 98

(192) тфинце \bar{n}_{x} 5 χ κ^{1328} екфано χ вф 1329 \bar{n}_{Γ} хрф \bar{n} мос енвах етф \bar{n} вбуге метрот \bar{n} кесоп

(192) The skin of a snake that you have left to rot, use it to the eyes whose eyelids are no longer to produce eyelashes.

Pliny (XXVIII, 48) states that a snake's skin can be used against earache, by using a mixture of the old skin of a serpent and vinegar, and wrapping it up in wool. 1330

 \bar{n} χηλκ = ογεοπ. Chassinat 1921: 212.

¹³²⁷ Bostock and others 1855: 431.

¹³²⁹ εκφανό εκφανός κα αλογης. Chassinat suggested that the verb λογης may related to the verb λογβ, consequently to λως, since the mutation of lip β and q common phenomenon, that allows assuming that λογβ is written for λογα and should be compared to λως, Chassinat 1921: 212. The scala Bohairic translated by Arabic *fasad* "corrupt, spoil". Kircher 1643: 473.

¹³³⁰ Bostock and others 1855: 338.

7.5.2 ογγαβλεελε "Lizard":

In P.Mich. MS 136, Il. 195-198, the lizard gabaceae used to treat a type of eye diseases called "flux", and the recipe recommended to use the fresh one:

P.Mich. MS 136, ll. 195-198

ογελε[λ] εέλε ο ντέις ε ετουττούστ ροχ \overline{g} ς της ει επχ τάλς ει λιβάνος

A great lizard: In this way, while it is still fresh, burn it, pound with vinegar, and put it with incense....¹³³¹

P.Mich. MS 136, Il. 212-220

єтвє тес ке[.]ү н й[2хч] $\frac{1}{2}$ єхі ийкамн оузест[нс] йиє2ме $\frac{1}{2}$ оухітра изехкіє2ме 2ме 2ме 3ме 4ме 4

For the ... or the black lizards: a pint of genuine (olive) oil, a pint of aged vinegar, a pound of *Helkiera*, three staters of white lead. You put them into bowls with fire underneath until it is mixed in, while you stir them with fresh palm shoots.¹³³²

7.6 MAMMAL RESOURCES

7.6.1 mn "Mouse":

The use of mice in medicine goes back to the old Pharaonic pharmacopoeia. According to Ebers Papyrus (LXXX II, 14), mice were used to treat rheumatoid arthritis, when mixed with similar portions of pig's fat and snake. The rooted mouse was used for hair problems in Hearst Papyrus (X, 10). Dioscorides (II, 6, 9) writes that it is common for this animal to be employed to treat scorpion stings, and it is useful to be eaten roasted to stop the salivation of children. Pliny (XXIX, 29) mentions that mouse saliva is

¹³³¹ Translation: Worrell 1935: 36, with slight modifications.

¹³³² Translation: Worrell 1935: 36, with slight modifications.

1333 Dawson 1924: 84.

useful against sting of a scorpion. Abd er-Razzaq 1335 mentions that "[The mouse الفأر] grilled and eaten, it stops dribbling of saliva in children....Roasted alive and placed upon the sting of a scorpion, it cures it". 1336

Moreover, the second half of Papyrus Berlin 8319 details a prescription for treating various diseases by using mice, however it is difficult to identify the disease, against which prescription was used, from the fragmentary text:

Berlin 8319 ll. 16-26

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[+ - 7] αρτεμήςιας ^{1337} νακρίος [+ - 9] χε μπίν . Νκέν [+ - 12] 10τ εντάμ [+ - 8] νηθρέ νκοάς [τε 20 [+ - 5] σάροη ντώσν νοόγο [+ - 5] τείλοσμ κάλος [+ - 8] αμ νηκέρανοι [+ - 8] ομ νκχόμη μημ [+ - 10] πη νρούζε ν .. 25 [+ - 6] νδόου μνάλω σνός [+ - 5] τεόμ μπχόεις †
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[...] Wild artemisia [...] mice [...] and kindle (20) [a Fire] under it with straw and wheat [... until] it boils well. [...] it mixes with [...] it [...] evening [...] (25) days. It will be healed quickly [through the power of the lord †.

Chassinat papyrus recipe (Ch 197) contains a remedy to treat the ulcer consisting of decoction of mouse, wax and unsalted pork fat (see 5.16.20).

7.6.2 мн йомблоү "Bat's urine":

Coptic medical text dealing with bats can be found in the Chassinat Papyrus (Ch 194 see 5.6.7), in which a bat's urine with the gall of the fish Cyprinus niloticus and the squeezer of the wild rue is recommended for treating dim vision.

¹³³⁴ Bostock and others 1855: 403.

¹³³⁵ Abd er-Razzaq 1321: 126–127.

¹³³⁶ Chassinat 1921: 297.

¹³³⁷ αρτεμγειας, ἀρτεμισία "wormwood", scientific name: Artemisia arborescens.

7.6.3 cnoq กิธาธิวัณ "Bat's blood":

The earliest medical use of the bat is demonstrated in the Ebers Papyrus:

Pap. Ebers 424 $(63, 12 - 13)^{1338}$



Another [remedy] for removing curved eyelash hair in the eye: Myrrh1, blood of the lizard 1, blood of the Gold snips 1, turn the eyelashes and give it to it (= the eye) is healthy. 1339

Furthermore, the use of the bat appears in the *Demotic Magical Papyrus of London and Leiden*, which originated in Thebes and dates back to the 2nd cent. CE. ¹³⁴⁰ Also, the Coptic magico-medical recipe P. Mich. MS 136, ll. 38-40 recommended to use the blood of bat with blood of shrimp to treat the eyelids:

P. Mich. MS 136, Il. 38-40

etbe zen bogze ze nnegpat cnou $\bar{n}\sigma[\iota]$ sla. zi cnou \bar{n} kogpic . epe pooze $\sigma[\varpi] x q /\!\!/$

Concerning eyelids, that they may not grow:¹³⁴¹ Blood of bat (mixed) with blood of shrimp (?). When the moon is waning.¹³⁴²

7.7 MINERAL RESOURCES

¹³³⁸ Medizinische papyri [http://www.medizinische-papyri.de/PapyrusEbers/html/kolumne_lxiii.html], (last accessed: 12.12.2019).

¹³³⁹ Westendorf 1998: 1. 623.

¹³⁴⁰ Griffith & Thompson 1904: 153.

¹³⁴¹ Perhaps this refers to eye-lashes (λοογ), that grow inward as a result of trachoma, or to the thickening of lids due to that disease; however, one would expect a more explicit expression. Worrell 1935: 29.

¹³⁴² Translation: Worrell 1939: 29.

The medical recipe P.Mich.MS 136, ll. 56-59 attests that a man suffering from swelling should get better once gold brine is immersed in gold with oil and smeared onto the swollen part of the body:

P.Mich.MS 136, ll. 56-59

тинол ы иеб табе сьол ави длуо // >>>--етве ольаме елауляе биол иолиоля ин еаруласын йиоля йбидл

For a man who becomes swollen (inflamed): Salt of a piece of gold: that in which pieces of gold are quenched. Pulverize with oil. Anoint him till he recovers.

7.8 AQUATIC ORGANISM

7.8.1 сю йонвю пеза "Gall of black labis":

The gall of black labis appeared to times in Chassinat papyrus Ch 113 and Ch 194, and used against eye disorders (see 5.6.7).

7.8.2 cnoq ν̄κογρις "Shrimp blood":

The blood of shrimp cNoq \bar{N} κογριc used for eyelids, and the recipe recommended to use it with the blood of bat at the waning moon as in P.Mich. MS 136, Il. 38-40 (see 7.3.6).

7.8.3 фенк "shell":

Ch 45 is the only recipe that contain the shell among its ingredients of eye remedy: סץצַץףסא פאפא אפאסץ אמסכ "A very good powder for the eyes". The recipe consists of various minerals such as gold cadmium, copper, pearl and marcasite (see 3.2.3). αμενκ is Arabic šanǧ מֹנֹבָּ Chassinat argues that it is name of a large shell found in the seas of India and on the coasts of Abyssinia and Yemen. Ibn Al-Baitar describes it from the Morsed of Al-Tamimy: It is a horned marine snail, and in it, there is an animal called a snail, and if it

is burnt, it is included in many of the eye kohl and many of its medicines. 1343

7.8.4 มลด พิยาดห "tongue of sea, cuttlefish":

אב אונ , לישוט וואבע האפוסא means tongue of sea, which is cuttlefish and corresponds to the Arabic באול , שוט וואבע. Ch 54

(see 5.6.8) is the only recipe that recommended the $\lambda \Delta c$ \bar{N} eiom to treat the visual impairment and makes the

eye see well. Ibn Al-Baitar mentions that it is called by Greeks سيبيا σηπία. Its curative purpose recognized

by Dioscorides II: It is a well-known fish in Jerusalem, its cooked vesicle used as a laxative for indigestion.

It is used to treat rough eyelids. It is also used in insufflations against leuchoma in cattle. Also, it dispels

the membranous tumors that form in the eyes, mixed with ground salt. In Galen XI: it is burned and used

to treat skin diseases such as vitiligo, melasma, freckles and scabies. And used to treat and dissolve the

pterygium in the eye, when mixed with burned salt. when it is crushed scoring the teeth, and to dry sores

and abscesses. 1344

7.9 HUMAN RESOURCES

7.9.1 Human hair:

7.9.1.1 qw กิсเทธ "woman's hair":

In medical recipes, human hair, particularly female hair was used, whereby the ash was used as a blood

stilling agent, Ch 174 prescribes a hemostatic powder ογΣγρον εφωλονος consists of burnt woman's hair

and coal, to be placed on the place of blood flow (see 5.15.2.4).

To treat a painful vulva, P.Mich. MS 136 recommends using Bω ñgeλω "old woman's hair", and other

ingredients and having the patient "sit over smoke":

P.Mich. MS 136, ll. 161-165

ετβε ους2ιμε εωρρε τεσοότε μκας δι νακ νούνες νδιωουννήσυραςε $\overline{\text{μν}}$

ΟΥΦΗΜ ΝΒΟ ΝΖΕΛΟ, ΤΑΑΥ. ΕΖΡΑΪ ΕΧΝ ΖΝ ΧΒΟ ΝΝΟΘΕ ΝΝΟΥΖΕ ΜΑΡΕΟΖΜΟΟΟ

<u> ΣΙΧΉ</u> ΠΕΎ ΚΑΠΝΟΌ ΚΑΝΑΟ //

¹³⁴³ Chassinat 1921: 153.

¹³⁴⁴ Ibn Al-Baitar: 608–609.

313

For a woman whose vulva is painful: Take some oil, (or) fat, or the (fat) of an ox(?) with a little hair of an old woman. Put them upon some coals of sycamore sticks. Let her sit over their smoke. She will recover. ¹³⁴⁵

7.9.2 Human milk therapies:

The use of the breast milk was very valuable and common in prescriptions especially in those treating ophthalmic diseases (Ch 95), to treat breast pain (Cod.Med.Copt., p.214, recipe no. 3), and it was also used against haemorrhoids (SBKopt I 005). Moreover, there were special and uncommon types of breast milk that appeared in Coptic medical recipes such as milk of a woman who has suffered miscarriage (P.Mich. MS 136, ll. 23-26), and the breastmilk of a woman who bears a male child. Each special type appears only once:

Ch 95

(188) epaite \bar{n} cime (sic) epaite n550 \dagger enbal et \dagger kkac ynawbą

(188) Woman's milk, donkey milk; give the eyes that have pain, he (the patient) will be stilled. 1346

SBKopt I 005 II. 28-65

The following recipe prescribes a remedy against ελπεσογρ "haemorrhoid", it provided various topical remedies such as using the soft faeces which mixed with other substances, another way by using fig milk to make the haemorrhoid bigger and get rid of it. Moreover, the recipe provided treatment after it is broken, and to make it disappear (see 5.10.1):

екоуши) етресер иоб †ерште исгіне ехи оупобе иире иноуге. иг., ехи тпобе иноуге (Recto) йоуапе икаевін файтеч хро. игтшге еров гршин файтеч хро. игтшге еров гршин файтеч хро. игтшге еров ишрин файтеч икенте

¹³⁴⁵ Translation adapted from Worrell 1935: 34.

¹³⁴⁶ English translation by me of the French translation by Chassinat 1921: 207, with slight modifications.

 $\overline{\text{με}}$ εφωπε ασπός ασέρ ανό $\overline{\text{μω}}$

If you want it to be larger, give a woman's milk to a sycamore-shaped wood, and an ax-head to the sycamore patch until it becomes thick, and anoint it. With it, and (?) bring it to burst with the above-mentioned, which is the fig-milk. If it is broken and bleed before you found it, take the capper root, grind it, and put it on it. Apply.

Cod.Med.Copt., p.214, recipe no. 3

етве оүківе есмоху хі ноуерште исгіме хахо ерос фацерфау он ихоєіт ${\sf MN}$ ивар етмохр

For a breast which is painful: Take breast milk (lit. a milk of woman) and rub it in. It also employs for sick testicle and penis. 1347

Cod.Med.Copt., p. 215, recipe no. 9

етве гиківе етреуєрерште ді игимагт иброб 1348 † оүмістранос имене гі гикеєїрп иєссоу ауш катаплассе он иківе он ги піпагре сенамоур.

For breasts to give milk: Take intestines seed, give (the patient) a spoonful everyday with beer (or) wine. And also smear the breasts with this medicine. They will fill up. 1349

7.9.2.1 ογερωτ νογεε περιχρω "The milk of a woman who has suffered a miscarriage":

P.Mich. 593b, ll. 23-26

¹³⁴⁷ Author's own translation.

¹³⁴⁸ Сf. 6ро6, Crum 1939: 832а.

¹³⁴⁹ Author's own translation.

етве фаче иім ді йочершт ночге періхрш ймоч чиало

For every inflammation: Take some milk of (a woman who has

suffered a) miscarriage. Apply it. He will recover. 1350

7.9.2.2 ερωτε νέζιμε εκμοςε νογ[ω]μρε νέζουντ "The milk of a woman who bears a male child":

In ancient Egypt, breastmilk taken from the mother of a male child was held in high esteem for its healing

and magical properties. A recipe from *The Book of Mother and Child* (7,5-8,30) recommends this type of

milk for the expulsion of baa: "Another: bolls of papyrus plant, earth almonds; grind and mix with the

milk of one who has given birth to a boy. Give a hin to this child for him to survive the day and night and

for his healthy sleep". 1351

Furthermore, the milk of a woman who had borne a male child was used in fertility test in the Papyrus

Berlin: "To ascertain whether or not a woman will have a child: the herb bededu-ka, powdered and soaked

in the milk of a woman who has borne a son. Let the patient eat it ... if she vomits it, she will bear a child,

if she has flatulence, she will not bear". 1352 In Ch 206, the milk of a woman who bears a male child, used

to treat ear sickness: ογμαχε εφφωίε αμμωνιακού θυμιαμάτος $2 \sqrt{10}$ ερωτε νέζειμε εκμούε νόγ $\sqrt{10}$ μρε

Ñ200ΥΤ ΧΡΟ ΘΡΟΥ "an ear that is sick, gum ammoniac; grind it with the milk of a woman who bears a male

child; apply to it" (see 5.3.2).

7.9.3 мнмн йкоүї йонрє "Small child's urine":

The urine of small child used as a remedy against abscess, as in Ch 176 (see 5.16.12), which

recommended to mix it with cadmia, yellow vitriol, copper, vinegar, tragacanth, and white vitriol.

1350 Translation: Worrell 1935: 191. Till provides a different translation for this recipe "Gegen jegliche Anschwellung. Nimm Sykomorenmilch und reibe sie ein. Sie wird heilen". Till 1951a: 134.

¹³⁵¹ Strouhal, Vachala, Vymazalovà 2014: 131.

1352 Witts 2005: 77.

316

8. THE ROLE OF MONASTERIES IN MEDICAL HEALTHCARE

Monasteries are depicted as the main centres of medical care, where medical treatment was provided through charity foundations, hospitals, and infirmaries. The medical staff was usually composed of monks, elders, doctors, and nurses, who were brought to monastic hospitals to offer curative care to patients. They were the main caregivers who provided natural and physical therapies, which alleviated patient suffering. Accordingly, this healthcare system was divided into considerable and important professions, which constituted a specific system called monastic medicine (Klostermedizin). Monks gave curative care with a concentration on physical and spiritual treatments with high-level techniques such as general hygiene, nutrition, and herbal medicine. All these medical aspects combined with a supplication to God in form of prayers intended to help sick people. Therefore, the main feature of monastic medicine was the use of physical medicine alongside religious practices. 1354

Monasteries offered health care for the sick through their charitable institutions that employed professional monks who worked according to ancient medical books and instructions, and who prayed to God in order to heal those that were sick. Between 500 and 1300 CE., monastic hospitals provided generous reception to guests, visitors, and even strangers. Nevertheless, the concept of private hospitals could be found beside their imperially financed counterparts. Hospitals were also established in cities and villages as well; a will from Antinoopolis (*P.Cair.Masp.* II, 67152 and 67151)¹³⁵⁶ presents an example concerning the inheritance of a private hospital. The chief of this hospital, Phoibammon, bequeathes his valuable place of care to his brother. The hospital was once owned by his father Euprepius and belongs to Phoibammon's family. In his will, Phoibammon wants to authorise his brother to manage the financial affairs of the hospital:

"As regards the holy management, care and supervision of our worthy *xeneôn*, which we have inherited from our father, I declare and wish and order that all the goodness, care and provision bestowed on the sick should be carried out as well as performed carefully, painstakingly and without reproach as a work of piety and in the fear of God with all diligence and gentleness by my most loving brother John and also that he should take proper care of the business matters relating to this *xeneôn* to assure continuity of the care, service and proper provisions bestowed upon

¹³⁵³ Wilsdorf 1974: 78.

¹³⁵⁴ Silverman 2002: 11.

¹³⁵⁵ Silverman 2002: 11.

¹³⁵⁶ Minnen 1995: 165.

¹³⁵⁷ Crislip 2005a: 9.

the sick, and I adjure him by the eternal God not to make light of this diligent work of God-if he is negligent it will be settled before God." ¹³⁵⁸

Van Minnen declares that "The hospital provided the necessary union of rational medicine with the distinctly Christian value of charity. Hospitals, along with other institutions, directed the surplus energy of new Christian society to charity profitable to all." ¹³⁵⁹

The usual terms that referred to hospitals reflect the services and activities presented in the hospitals such as the most obvious term *nosokomeion* "place for the sick", and *xenodocheion* or *xenon* "a hostel for strangers". Also, St. Basil refers to his hospital as a *ptôchotropheion* "a place for the nourishment of the poor". ¹³⁶⁰

Inside the walls of the monastery, patients received curative care from a taxonomic category of professional providers such as doctors, nurses, elders and lay caregivers. Care for the sick is one of the most considerable activities in the monasteries of Shenoute, where the infirmary (пых нароже етфоне) provided curative service for its inpatients. The writings of Shenoute provide abundant evidence of the caring progress for the sick within his monasteries. Shenoute's writings offer abundant information about monastic health care, especially those that account of his illness, like in Canon 6. As identified by Heike Behlmer Canon 6 contains five separate works: "He Who Sits Upon His Throne," "Remember O Brethren," "Is It Not Written," "Then I Am Not Obliged," and "People Have Not Understood," three of which mentioned Shenoute's illness.

The most popular division of the Egyptian monastic communities was based on two main types of the monastic lifestyle: lavra monasteries and coenobitic monasteries. Both of these types of monasteries were anchored in the delivery of two main mechanisms: the inpatient and outpatient care systems. The monastic community under consideration in this research is the coenobitic one, as the medical texts that came from monasteries emanated from the coenobitic monasticism. Therefore, the role of these monasteries in providing medical and other healing ways will be highlighted. The Coenobitic monasteries provided health care through two basic patterns:

1. Inpatient care in an infirmary inside the monastery.

¹³⁵⁸ Crislip 2005a:189.

¹³⁵⁹ Minnen 1995: 167.

¹³⁶⁰ Crislip 2005a:102.

¹³⁶¹ Crislip 2008: 21.

¹³⁶² Behlmer 2008: 3.

¹³⁶³ Crislip 2005a: 4. "As for our evidence which came from the monasteries, we can divide them as follow: the coenobitic monasticism like: The White Monastery, the Monastery of Apa Jeremias at Saqqara, and the monastery of Apa Thomas".

8.1 INPATIENT CARE OF COENOBITIC MONASTICISM

One of the most distinctive features of coenobitic monasticism is the existence of the infirmary (пма кироме етороме) which provided nursing and care for patients under the supervision of professional doctors and nurses. Excavation results present only a few ruins of the monastic compounds, so there is no complete view of all monastery infirmaries. The St. Pachomius monastery in Tabenesse is considered the oldest coenobitic monastery dating back to ca. 320 CE. 1365 Based on the earliest available sources, a Pachomian text (*V. Pach. Gl* 28=*Bo* 26) dating back to ca. 324 CE states that the design of the monastery included a conventional construct of entire buildings, where the medical centre occupied a special place with specific rules: "[Pachomius] appointed another house of stewards to give comfort to all the sick brothers with attentive care according to their rules, and over them a house-master (*oikiokos*) and a second (*deuteros*) in the same way." argues that this is the first example of a monastic infirmary. Thereafter, Shenoute's monasteries were established (ca. 385-464 CE), the church of St. Shenoute at the White Monastery one of the greatest coenobitic monasteries, stands among ruins of the buildings such as the cells and the refectory. 1368

It is worth mentioning that within the cloister walls of the coenobitic communities, doctors and nurses treated sick people on a regular basis and according to specific rules. ¹³⁶⁹ Elders whether males or females, were responsible for giving the sick person permission to enter the infirmary, because they had the ability to perceive the severity of the disease. According to Shenoute's disciple Besa infirmaries were not places of loquacity, therefore he affirmed the rules that during one's stay in the infirmary: "[no one] shall ... speak inside the infirmary while sitting and eating or drinking the small portion needful, but they shall drink it sensibly and in fear of God''. ¹³⁷⁰ Hence, the stay in the infirmary was strictly regulated and sick people should not ignore the monastic rules.

¹³⁶⁴ Crislip 2005a: 9.

¹³⁶⁵ Crislip 2012: 44.

¹³⁶⁶ Crislip 2005a: 149 (the original text, note no. 13).

¹³⁶⁷ Crislip 2005a: 11.

¹³⁶⁸ Crislip 2005a: 10.

¹³⁶⁹ Crislip 2005a: 150 (note N. 33). Shen., Can. 9, FM 186, L. IV: 160–61, "No physician (saein) among us shall heal an outsider, not only not for wages, but not even free of charge....". The slightly later coenobium of the tower in Palestine had at least two doctors in the cloister, V. Sab. 131, 28.

¹³⁷⁰ Besa.frag.12.9.3–5. Crislip 2005a: 85–86.

In Shenoute's monasteries, both female¹³⁷¹ and male doctors joined the health institution (two male monasteries and one females monastery were created).¹³⁷² It was common to employ female physicians in Graeco-Roman culture, but in the Old Kingdom of Egypt, only one female doctor is recognised. In Late Kingdom of Egypt, women were more commonly described as physicians.¹³⁷³ The Monastery of Apa Jeremias at Saqqara,¹³⁷⁴ dating back to ca. 470 CE, housed the only monastic infirmary in Egypt that has been determined through archaeological investigations. There is a commemorative inscription on a limestone door lintel in the building which mentions the infirmary and its personnel (figure 16):

пасон апло појепасон авразам пішт пма нетојоні пенсон алез перчтіакон

My brother Apollo the son of my brother Abraham, the father of the place of the sick (infirmary), our brother Alex(ander), the attendant). 1375

A particular position for the infirmary of the monastery is evident from the archeological findings; it was usually located usually near the refectory, in a separated area away from the main monastic structures, as in the case of the monasteries of Pachomius, Shenoute, and Basil. This separation was created to avoid social disturbance or communal problems. The excavations lack information about the number of infirmary rooms, the number of persons that would stay in one room, or any information about the techniques practiced inside the infirmary. Nevertheless, it is argued that every infirmary had a kitchen, refectory and a depot. 1376

In general, there is no given size for the infirmaries; the layout and size varies from place to place. There is no doubt that the size reflects the importance and the value of the respective infirmary. The infirmary of the Monastery of Apa Jeremias is one of the largest buildings (*koinobion*) with a size of approximately 540 m². The archaeological excavations revealed that some of the rooms were related to the infirmary. ¹³⁷⁸

¹³⁷¹ Shenoute's rules imposed the separation between the sexes even inside the monastery. The monastery doctors were not allowed to treat people especially women from outside the monastery. Krawiec 2002: 27.

¹³⁷² Shen., can. FM186, L. IV: 160–61, "Female doctors (*shime nsaein*) in these communities also shall not behave in this way at any time." Pachomius and Basil also established "double monasteries" with male and female communities, but female doctors are not specifically mentioned in the sources taken from these communities. Crislip 2005a: 150 (note no. 34).

¹³⁷³ Ritner 2001: 353.

¹³⁷⁴ Twenty-five kilometers southwest of modern Cairo.

¹³⁷⁵ Quibell et al 1909: 28.

¹³⁷⁶ Crislip 2005a:12.

¹³⁷⁷ Crislip 2005a: 10.

¹³⁷⁸ Figure 19.

8.2 PRIMARY MEDICAL SOURCES FROM MONASTIC LIBRARIES

The two primary medical sources explored in this study are literary texts from early monasticism such as Pachomius's and Shenoute's writings, and Coptic documentary sources such as papyri and inscriptions, which are the subjects here in this research. The list of the latter is arranged as follows:

- P. CARLSBERG 500:¹³⁷⁹ The Coptic inscriptions¹³⁸⁰ and medical texts from the Monastery of Apa Jeremias at Saqqara.
- Folios Cod.Med.Copt. p. 241-244: Taken from the White Monastery and dating back to between the 9th–10th cent. CE., it contains forty-five medical recipes against several skin and venereal diseases, such as different types of psora, scabies, penis nails and itching. ¹³⁸¹
- Cod.Med.Copt., p. 214-215: Part of a monastic handbook from the library of the White Monastery on parchment leaf, it dates to the 9th and 10th cent. CE.,¹³⁸² and includes eleven medical recipes, concerning breasts disorders.¹³⁸³
- *P.Ryl.Copt.* 107 and P.Ryl.Copt. 108 Ro: Two parchment fragments from the White Monastery at The John Rylands Library, Manchester (see below).
- P.Sarga 21: A dipinto and a fragmentary papyrus from the Monastery of Apa Thomas, Wadi Sarga.
- *O.Mon.Epiph.* 574 and *O.Mon.Epiph.* 575: Ostraca from the Monastery of Epiphanius at Thebes, Crum 1926: 117, nos. 574 and 575.
- IFAO 13315: Limestone ostracon at the Institut Français d'Archéologie Orientale, Cairo, originating in the Elias Monastery in West Thebes. 1384

¹³⁷⁹ Erichsen 1963: 23–45.

¹³⁸⁰ Thompson 1909: 57.

¹³⁸¹ Zoega 1810: 626–30.

¹³⁸² Bouriant 1888: 319–320; 374–379.

¹³⁸³ (See 5.14).

¹³⁸⁴ Coquin 1975: 207–239.

8.3 THE MONASTERY OF APA JEREMIAS

On the plastered wall of the infirmary within the Monastery of Apa Jeremias (room 700 D), there was an inscription in black ink: a medical recipe for the more common disease "swelling", which may refer to an abnormal enlargement of a part of the body or the whole body, or a wound. The depicted figures of snakes appear to be on a sick person. This affliction also appears in another recipe (Mich. MS 136, Il. 42-52) which is connected to chills and is parallel to Iliad, III, 33-35. The method in which the herbs (plant), burnt charcoal (mineral), and animal fats (animal resources) are combined together in the following remedy is a reflection of the pharmaceutical element of the monastery's healing method:

I.Saqqara 103

... swelling ... pound them, flower of ... apply a sick person; take charcoal (? *jebs*) of olive wood ... burnt (?) ... of sheep (?) lay it on them, apply [it]. For figures of snakes [which appear to, or on] a sick person, flower of ... with salt; lay it on them [apply it]. For ... [fat (?) of] wild goose with ... and water; lay it on [them, ap]ply. Wounds (? Polh) . . . gherkin (?) pounded. 1386

Moreover in the infirmary of the Monastery of Apa Jeremias, there was part of a frieze with a dedicatory inscription of the physician Victor and his son Shoi, who prominently worked in the infirmary (Figure). Such medical writings from the coenobitic monasteries illustrate the therapeutic method applied in the monastic communities. Medical texts that belonged to the monastic communities contained prescriptions for both external and internal diseases, exactly like the other medical texts from lay communities. Shenoute's

¹³⁸⁵ (See 6.2).

¹³⁸⁶ Translation: Quibell 1909: 57.

¹³⁸⁷ Ouibell 1912:139.

monastic communities had strict rules concerning the internal diseases; the examination of these diseases from a doctor needed the decision of the elder. 1388

The coenobitic monastic medical manuscripts and inscriptions used a pharmacological technique, which usually depended on the therapeutic materia medica. This technique appeared in a pharmacological Coptic medical handbook relating to the coenobium of Apa Jeremias at Saqqara, which prescribes some herbal medicaments for external and internal ailments. This manuscript has particular features different from the other medical documents. Its size in comparison with the other medical documents is small and has the approximate shape of a square (approximately, 9-9½ x 8-8½ cm). Therefore, it may have been used as a manual reference for the physicians of the monastery. The manuscript sequence of pages' number is high whereby the remaining pages contain numbers past one hundred: 103, 104, 105, 106, 111, 112, 113, 114, 135, 136. 1389 In addition, Richter 1390 further published ten pages (F/i vo, F/ii ro (Fragment), F/ii vo (Fragment), G ro, G vo, H ro, H vo, I/i ro, I/i vo, Blatt I/ii ro, I/ii vo). Since the parchments have been significantly damaged, these pages neither provide a coherent text nor a complete prescription but preserve some herbal names with few details on these medicinal plants, such as fol. A voll. 8–12 ювиков накрю(н) ечрит гленна ечхосе еренечение о и соуре "Wild Jôbêkôb: It grows on high ground places, its leaves are thorny"; and fol. G vo lines 1-4 πεωρωθε εγωροκ ερεπεγετοι [ωμ]ω εςρμτ $2\overline{\mu}$ πεκ]ρο μπιερο "The pumpkin; they are small (?) and their smell is the [sa]me. It grows on the bank of the river". An interesting feature of the manuscript is the way in which each herb is classified for its own use of processing:

P. CARLSBERG 500

.... n[a] до етвието идеукфиа гієвіф. Өнонт[ів] отали циадо етвенірфие є[то n] цент өно n[rxi]тоу епесит фаудо. Өно итеївотале иноудок инооу хфки ипрфие ецфифівератнок етве истфенги 1391 псінге итївотали иноуєрфте иеге марецоуоноу ауф ицтоукоуї епециалгноос фацанагте ипгреуна пина 1391 ти ипвно. Їфвикфв иакріб ецрит гиренна єухосе єренецофве о

¹³⁸⁸ Shen., Can.5,XS 386-372bis, L.IV:73.: "No one among us shall go to a doctor for him to treat them from a hidden illness with them, in their head or abdomen or bowels, except for this only, for them to be treated for a pustule or a "deute" or a tooth or an eye or any other external ailment [without the permission of the elder]." Crislip 2005a: 160 (Note no. 150).
¹³⁸⁹ (see 2.1.1).

¹³⁹⁰ Richter 2014: 184-188.

¹³⁹¹ Erichsen translation: "Für die, welche Herzweh haben", but I translate it "For those who suffer in stomach", as the rest of the recipe mentioned that the remedy should be applied to the anus, so it refers to stomach or intestines pain rather than heart condition. Сf. нафоне егита "suffer in stomach". Сrum 1993: 643a. Also, in Acts of the Apostles 28:8 ασφοπε δε ετρε πειώτ μπουτίλις εμόμ αυφώριε είμτα ναφώριε ναμκότκ παυλος αβώκ είσην φαρόα αφώληλ αυτάλε τους είραι εχώς αυτάλους "And it was so, that the father of Publius lay sick of fever and duffer in stomach: unto whom Paul entered in, and prayed, and laving his hands on him healed him".

нен еффпе оүноүх фине епечпиеүнин 1394 пастч маречоуонч. етвеніршне енеусшти †печнооу ерооу фаусшти ... етвеніршне еукавох итеутрофн 1395 песперма итеївотанн гінооу гін[p]п гіевіш ма[peq]сш чиахо . етвепімангооут ноуа ечхохк маречоно итеївотане нукаас гіхитеч гитра 1396 чиаєнтон Хоф Хоф мохох етвеоуршне ерепечноїф фине хі нак хінхок гійпнооу итеївотанн хагноу гіевіш нутооу нгооу ечфанерноу исехго чиахо. етвеугнпар ечфшне оухої[regin = 200] етветанн гіеційш маречсш....

[unknown plant.] ... will be healed. For those suffering leukoma, grind this herb with honey and he will be healed. For those people who have worms, grind and take them down and they will be healed. (crush this herb with a measure of water.) If he suffers a urinary problem, bath the person. For those who suffer in stomach, mix up this herb with milk. Let him eat them and apply a little to his anus. It will restrict the discharge of the bowels. Falcon herb or wild *lobekob*: It grows in field/wild, in high places and its leaves are thorny. Crush it. Take its juice which honey in equal parts. Apply it to the eyes if they are misty. You should put them in bronze vessel and anoint every morning. And he will recover...

Cooked lichen. The juice of this herb, the herb of petešons. Crush this herb with tar. Plaster it on the places that itch. They will heal. Marjoram or šop šop. Crush this herb with incense and wine. Apply to the ribs that are injured. They will be healed. For headaches: Crush this herb with leek seed and with male c(ow)'s milk, and when someone is sick in his lungs, cook it, and let him eat it. For people when they

¹³⁹⁵ cf. τροφή "food, nourishment". Liddell/Scott/Jones 1996: 1827b.

¹³⁹² Cf. περιχρίω "to smear or cover over; to pour as unguent over, to anoint". Liddell/Scott/Jones 1996: 1394a.

¹³⁹³ kôọi, Greek word for kap.t "incense". Budge 1920: 786b.

¹³⁹⁴ Cf. πνεύμων "lungs". Liddell/Scott/Jones 1996: 1416b.

¹³⁹⁶ Cf. ἦτρον "abdomen, esp. the lower part of it". Liddell/Scott/Jones 1996: 780a.

do not hear, give them its juice (water), they will hear. For people, they vomit their food, the seed of this herb, with water, wine, and honey. He drinks, he will recover. For a strained male member of someone, he crushes this herb and places them on the lower part of abdomen, he will be relieved. *Khoph khop*, or mallow. For someone whose spleen is diseased, take *lellok* in the juice of this plant, boil them with honey of the highest quality, [and drink?] for four days. When he makes warm water he will recover. For a sick liver, excrement in the juice of this plant, with honey. Let him drink. 1397

8.4 THE MONASTERY OF APA THOMAS

The Monastery of Apa Thomas, also named as "The Holy Monastery of Apa Thomas" or "The Rock of Apa Thomas" at the site of Wadi Sarga near the city of Asyut, may be named after its founder Apa Thomas. Founding documents refer to it being populated until the 8th cent. CE. 1398 Medical and magical writings emanated from this monastery, and it supposedly had an infirmary.

A plastered wall within the Monastery of Apa Thomas, may have belonged to the infirmary building, contained medical prescriptions, nowadays in a fragmentary condition:

P.Sarga 21

 $\{ (a,b,b) \in B_{0}$ вевіть фетер $\{ (a,b,b) \in B_{0} \}$ в $\{ (a,b,b) \in B_{0$

...the] fever which the medicaments (? Teriakon) ... and wine and olive oil. Apply them to it.... An eye that waters: ... of raven's eye and water of onions and honey. Apply [them] to [it ...a goat's gall and honey. ¹³⁹⁹

Also, from this monastery there is a fragmentary papyrus containing information concerning the medical technique applied along with a treatment:

1

¹³⁹⁷ English translation by me of the German translation by Erichsen 1963: 32–36.

¹³⁹⁸ Crum, Bell, Thompson 1922: 7.

¹³⁹⁹ Translation: Crum et al.1922: 52.

P.Sarga 20

+ єтвє оуа єрєєнт [и]ечоуєрнте ичс ω [итнн]вє итекоїх оуагоу [...] и]гхоос хеїа ω їа ω [5] і ω иє єтчигнтч [0]у асфалтои ии []. лоої таау єграї гепехалкіои []ипоупоопе

Concerning someone whose (?) belly [] his feet and he ... [] fingers of the hand; lay them [] and say: Iaô, Iaô [] the sickness wherein he is [] bitumen and []; place them on [].] Concerning the cauldron [] they have not changed [or been moved]. 1400

P.Sarga 20

+ єтвє оуа єрєєнт [и]єчоуєрнте ичс ω [итнн]вє итек σ іх оуагоу [...] и]гхоос хеїа ω їа ω [5] і ω иє єтчигнтч [0]у асфалтои ии []. лоої таау єграї гепехалкіои []ипоупоопе

Concerning someone whose (?) belly [] his feet and he ... [] fingers of the hand; lay them [] and say: Iaô, Iaô [] the sickness wherein he is [] bitumen and []; place them on []. Concerning the cauldron [] they have not changed [or been moved]. 1401

P.Sarga 21 contains a combination of different methods of treatment, the *materia medica* "bitumen" combined with both the medical movements 'lay; place them', and the ritual incantations Iaô. This combination affirms that "the Coptic spells demonstrated that there are no lines between 'magic', medicine, and religion." ¹⁴⁰²

¹⁴⁰⁰ Translation: Crum et al.1922: 51–52.

¹⁴⁰¹ Translation: Crum et al.1922: 51–52.

¹⁴⁰² Meyer and Smith 1994: 79.

8.5 THE MONASTERY OF APA ELIAS

From the Monastery of Apa Elias in West Thebes, there is an ostracon (IFAO 13315,¹⁴⁰³ Cairo, inv. no. 13315) that dates back to between 7th and 8th cent. CE. It is a catalogue of the monastery's library that contains a list of books on papyrus and parchment. In line 36 of the verso ογχωσινε ν̄сεειν "a medicine book" is mentioned.

8.6 THE WHITE MONASTERY

The White Monastery is rich in medical documents along with other monastic writings. There are four such texts originating in the White Monastery. The medical parchments Cod.Med.Copt., pag. 214-215, 1404 Cod.Med.Copt., pag. 241-244, 1405 where each parchment contains pages' numbers, and they are supposed to be part of medical books. Further, the parchment fragment at the John Rylands Library, where Manchester P.Ryl.Copt. 107 contains a medical recipe to treat head pain and medulla (see 5.2.1), and P.Ryl.Copt. 108 Ro contains a medical recipe to treat eye diseases by using hoopoe's blood of hoopoe and cardamom (see 5.6.2.3).

8.7 THE MONASTERY OF EPIPHANIUS

There are two ostraca (O.Mon.Epiph. 574¹⁴⁰⁶ and O.Mon.Epiph. 575) that originate in the Monastery of Apa Epiphanius at Thebes, which relate to medical procedures. ¹⁴⁰⁷ Both contain one medical recipe, dating to between the 7th and 8th cent. CE. and were found among the piles of sherds at the Monastery of Apa Epiphanius in West Thebes.

O.Mon.Epiph. 574 contains a medical recipe to treat a sick intestine: one equation equation equations consisting of nuts, where blood throws down", hence it recommends the patient to be rubbed three times a day with a sulfur ointment (see 5.8.8). Furthermore, O.Mon.Epiph. 575 prescribes a remedy against a sick liver and knocking, consisting of nuts, wine and peppercorns, to be used as poultice (see 5.9).

¹⁴⁰³ Coquin 1975: 207-239.

¹⁴⁰⁴ It contains medical recipes to treat breast diseases and to increase the supply of breast milk (see 5.15).

¹⁴⁰⁵ This parchment mainly dedicated to skin disorders (see 5.16).

¹⁴⁰⁶ Crum1926:177; Till 1951a: 129.

¹⁴⁰⁷ Crum and White 1926: 117: Till 1951a: 129.

8.8 OUTPATIENT CARE OF COENOBITIC MONASTICISM

The second category of health care institutions in Coenobitic monasteries includes exterior clinics. This type of care principally established separate structures in coenobitic and lavra monasteries to alleviate the physical ailments of patients. Outpatient care offered treatments for the initial ailments and external wounds. Such a process mainly manifested in presenting any available possibilities of treatment to those located next to the monastery such as palliative care for external diseases. Otherwise, the internal diseases that needed careful examination or scrutiny were to be treated in the infirmary. 1408

The healthcare mechanism of monasteries through their inpatient and outpatient systems was available in a very systematic way and was free of charge. Moreover, there were initial infirmary admission proceedings based on the acceptance of the patient and his adherence to the treatment rules. The incipit phase was called "lay referral network", thus the patient should firstly use available treatments such as folk medicine, which was provided by a layman of their family or relevant person, who did not necessarily have a medical background. This procedure was more precisely applied in coenobitic than lavra monasteries. 1410

Surviving monastic documents and inscriptions of monasteries indicate that the monasteries handled diverse diseases, and provided the best type of medical treatments: pharmacology, therapeutics, religion and even magic treatments. P.Sarga 21 is a good example of this case.

Alongside the role of various monasteries in the medical healthcare system, the monks and monasteries also played a prominent role in the practice of magic. They distinguished between a normal illness chone and that which was demonic or false, which could even afflict members of the monastic order. This idea has been depicted by the coenobitic monastic writers who describe in the Life of St. Pachomius, who himself was afflicted by a demonic illness, which he realized was not a natural illness:

"Once he was seized by a fever in the monastery and he lay without food for two days. On his third day without eating, he got up a little for prayer, in his great desire for God, and he felt relief from the disease. And when the steward gave the signal for eating, as was the custom, he girded up his loins and went to eat at the table of the healthy brothers, realizing that the disease was not natural (me physike). And he gave thanks to God who had strengthened him. And so, when he saw another [in the same situation], he straightened him out so that he would not be mocked by the enemy." 1411

¹⁴⁰⁸ Crislip 2005a:12.

¹⁴⁰⁹ Crislip 2005a:40.

¹⁴¹⁰ Crislip 2005a:84.

¹⁴¹¹ Crislip 2005a: 79.

Accordingly, Pachomius recognised two different types of illnesses: the "natural illness" and the "unnatural illness". Shenoute also recognised two types of illnesses: "normal φωνε "illness" and παφωνε ναλιαμονιον "the illness of demons"; and he assumed that the demonic diseases were a result of the ΤΗΝΤΡΕΥΣΝΑΣΥ "sloth". 1412

The idea that monastic communities were the most prominent places for producing various magical writings was confirmed by the anecdotal writings about pagan priests who converted to Christianity. These writings have been written by literary monks who had a great knowledge of the Christian faith and its rituals. Furthermore, these writings were influenced by a group of Egyptian, Jewish and Christian elements. In this regard, they found in the priest's figure the most appropriate form of the appearance of the new "magical" form and the monk. 1413

Fourth and fifth century Egyptian monasticism provide us with a view of the conflict through the depiction of demons, and how these demons can deceive a monk's soul and mind and turn them away from the teaching of God, thus causing an unusual movement in their bodies. This concept appeared in Antony's epistles, which state that there are three movements that can dominate the body: the physical; those relating to the wrong habit in eating several times with a great amount of food; and those generated by the devil demons. ¹⁴¹⁴ If the mind followed the spirit's testimonies, the demons will afflict the body with these three movements and exhaust the soul, so it seek help and abide by the testimony of the spirit and healed. ¹⁴¹⁵ The demons are hidden creatures and can be visible if the monks surrender their inspirations ¹⁴¹⁶ St. Antony explains that "... if you seek, you will not find their sins and iniquities revealed bodily, for they are not visible bodily. But you should know that we are their bodies and that our soul receives their wickedness; and when it has received them, and then it reveals them through the body in which we dwell". ¹⁴¹⁷ Demons are "all hidden, and we reveal them by our deeds." ¹⁴¹⁸

Ritual spells provided concrete supernatural aid to those who were suffering. These spells were usually called "magical spells", which helped predict future healing, generate victories and pregnancies, and offer protection from evil, and so on. Hence, every person, Christian or even nonmonastic, turned to monks to learn about the future, healing and the expulsion evil spirits.

It was argued that a monk and pagan priest had the same abilities and that they were close to gods or demons. The priest, who was professional in writing, served the god in a temple that was God's home, and

¹⁴¹³ Brakke 2006: 227.

¹⁴¹² Crislip 2005b: 149.

¹⁴¹⁴ Antony, ep. 1.35-41. Rubenson 1995: 199.

¹⁴¹⁵ Antony, ep. 1.42-45. Rubenson 1995: 200.

¹⁴¹⁶ Brakke 2006: 17.

¹⁴¹⁷ Antony, ep. 6.50-51. Rubenson 1995: 219.

¹⁴¹⁸ Antony, ep. 6.55. Rubenson 1995: 220.

makes sacrifices in order to obtain a special relationship with God. As for the other monks or specialists, they performed their tasks outside temples and their tasks needed more effort, hence they gained a good reputation from their effective and potent writings. Moreover, there were supernatural beings that helped to make the rituals more effective. In many occasions, magical papyri disclosed the identity of this supernatural being, who aided and supported the magical process: devil, an angel or even a certain god. Also, these supernatural beings could be linked to the monk or the magician in all tasks to the extent that they would "eat and sleep with" him. 1419 Thus, the monk had a specific angel, not a demon, who aided him against the evil demons. Therefore, many magical spells contain the invocation of angelic and divine powers such as invoking the angel and Archangel Michael, Gabriel, Raphael, Suriel, Zarathiel, Zedekiel, Suriel, Anneal, Yoel, Tsel, and so on. 1420

A group of letters from anonymous persons addressed to a monk named Paphnutius include many requests to fulfil numerous desires for them and their families through his powers as a monk. Even sins were mentioned in the hope of atonement for their previous mistakes. These rituals were usually enhanced with some other substances such as oil and water to achieve the desired results. This idea appears in the correspondent of a person called Heraclides, who asked Paphnutius to bless him with oil to relieve his sickness. Even parts of certain animals were involved in the process of healing by monks to achieve the desired goal. Shenoute reports that "fox claws" were described by a monk, who stated: "Bind them to yourself, and you will recover". 1423

These letters also, prove that the accurate healing was achieved by Christ, who was able to heal any illness, and the act of healing presented by monks or magicians was "deceptive relief". ¹⁴²⁴ In this regard, Shenoute states that, correspondence between St. Antony and a woman called Valeria, depicts her admittance that the monk's prayer helped her to be healed as the monk has a close relation with Christ "I am confident that through your prayers I receive healing, for the revelations of the ascetics and worshipers are manifested." ¹⁴²⁵ The clients, believing in the monk's miraculous abilities, turned to them in the hope of facilitating the obtainment of a place in the heaven. ¹⁴²⁶

Throughout the history of monastic life, health and disease were one of its main concerns. This idea is evident in monastic literature. On this topic, the earliest monks in Egypt provided a substantial corpus of writings regarding health and illness, especially three collections of letters, which are considered the

¹⁴¹⁹ Brakke 2006: 229.

¹⁴²⁰ (See 6.4).

¹⁴²¹ Brakke 2006: 228.

¹⁴²² Papyrus 1928, Inv. No. 2496, date to 4th cent. CE. Bell and Crum 1924: 114–115.

¹⁴²³ Brakke 2006: 228.

¹⁴²⁴ Brakke 2006: 228.

¹⁴²⁵ Brakke 2006: 229.

¹⁴²⁶ Crislip 2012: 42.

earliest source of monastic writing: namely, the archives of the Monastery of Hathor's private letters; the letters of Pachomius, the founder of coenobitic monasteries in Upper Egypt; and the letters of Antony. Each collection's particular content is different from the other, however they do share a common feature: the health and illness of monks living an ascetic life.

8.9 ARCHIVES FROM THE MONASTERY OF HATHOR

The documents of the Melitian Monastery of Hathor are kept in three archives; each archive preserves documents relating to a certain monastic individual: Paieous (330s), Paphnutius (340s) and Nepheros (350s). These archives contain both the letters of the monks and letters written to the monks sent by their clients outside the monastery, accumulating to approximately thirty-five letters. These letters provide a close view of the different positions of the followers of the monk's efficiency: noble or layman, monastic or nonmonastic, men or women.

The two archives of Paphnutius (340s) and Nepheros(os) demonstrate the concept of monastic health and the monk's broad abilities as healers through prayer and the application of blessed oil, as they believed that these remedies were effective even in different and remote places. Usually, these followers were relying on the monks as further spiritual models to gain miraculous healing of their difficulties and illness through the monks' prayers.

The basic subject of these letters is the health of the monastic persons and wishing their continued health. This is clear from the sentences included in the letters such as "I pray you are healthy (*erriasthai se euchomai*)", "I pray you are healthy in soul and body (*psychēi kai sōmati*)", or "I pray that you may be healthy for a long time (*epi megiston chronon*)". ¹⁴²⁸ In addition, these letters included beseeching God to protect the monks because of the perceived benefits that they offer. ¹⁴²⁹

Correspondence sent from Heraclides to Paphnutius states: "I pray that you may be healthy in the Lord for a long time, praying on my behalf continuously, most pious father." It continues stating:

"You always have the chance to pray on my behalf and I need help from you who are stronger (*kreittonos*) on account of prayer. Both because of my name and because of the sickness that has seized and oppressed me (*pros ten katalabousan me noson epigousan me*), I now beg you to do this additional thing: send me the oil. . . . For I do not believe that I will be

¹⁴²⁹ Crislip 2012: 42.

¹⁴²⁷ The archives of Paieous and Paphnutius (PLond. VI 1913-21 [Paieous] and 1923–29 [Paphnutiusp] Bell and Crum 1924. The archive of Nepheros (ENeph.). Kramer, Shelton and Browne 1987: 35–83.

¹⁴²⁸ Crislip 2012: 42. Paphnutius' prayer is the close link between the holy man and his correspondents. Rapp 1999: 68.

helped otherwise. May you hold up Christ as long as you have health (heös hugeiian ekheis). [second hand 1 . . . The prophet also shouted, "In affliction I called out and he heard me." Now truly it is an affliction in which I live, where help can be received neither from a brother nor from any other, except for the hope through our Lord Christ expected on account of your prayers." 1430

The writers' interest in the health of the monks and their concern for them stems from the privileged cultural meanings and values. Ensuring the health of the monk is a guarantee of the survival of the relationship between the Christian and the monks who provide them with numerous benefits, and guarantee God's blessing.¹⁴³¹

8.10 THE LETTERS OF PACHOMIUS

In ca. 323 CE, synchronous with the Hathor community, Pachomius founded his first monastery, in the Theban area. Pachomius's own writings show a great concern about monastic health and illnesses, especially *Letter 3*, and *Letter 5*. It is all the more valuable considering the paucity of sources from these early decades of Egyptian monasticism.

The importance of Pachomius's letters lies in their literary context. They are directed to several monasteries in his federation, unlike the private document archives of Paieous, Paphnutius and Nepheros: "The differences between the documents from Hathor and the literature of Pachomius are reflected in the significance attributed to monastic sickness and health therein. Pachomius presents the presence of sick ascetics in his monasteries not as a reflection on the sanctity of the sick or as a reflection of their own ascetic practice but as a risk and opportunity for the proper enactment of ascetic ideals by the healthy." 1432

Pachomius's Letter 5 was composed during the annual Easter celebration at Pachomius's home monastery of Pbow and was written as an encyclical to the monks. The congregation of Pachomian monks at Easter was considered an important occasion since traveling was difficult and involved almost one hundred kilometers. There is no doubt that the monks abandoned their monastic life routine during this period, and they needed special behavioral guidelines for reentering the coenobium. During the Easter

¹⁴³⁰ Crislip 2012:43.

¹⁴³¹ Crislip 2012:44.

¹⁴³² Crislip 2012: 45.

celebration, Pachomius appointed leadership positions for all federal monasteries. On this occasion, Pachomius implies the matter of monasticism and health. 1433

The letters were used to put emphasis on Pachomian instruction to his spiritual children. Pachomius often quoted scripture and presented a general moral instruction and limited particular guidance at the feast: "Pachomius exhorts his children to the virtues of obedience to superiors, kindness to others, and mutual aid, the foundational monastic precepts of Pachomius system." ¹⁴³⁴

Pachomius always exhorted his children to follow the instructions, as Noah obeyed God's commands. "And as the Apostle commands, the brethren should [bear] one another's burdens." With his oratorical skills, Pachomius advised his children to care for the sick monks among them: "When you come to us [for the Easter feast], take care to make the bed of the sick and not to be short of bread, and also, if possible, to find a pillow or a head-cushion, so that those who are weak may rest." He illustrated that the importance of caring for the sick is an execution of the scriptures: 1435 "This [care for the sick] is in order to fulfill the warning left to us in writing: 'Anyone who does not look after his own relations, especially if they are living with him, is worse than an unbeliever." 1436

Pachomius's community provided a suitable life for the biological family, namely dwelling places, food, clothing, reassurance, and health care.

In fact, the exhortation to care for the sick is the only specific administrative instruction in the fifth Letter, Letters 5.11, 3.3: "In the other passages in which Pachomius draw attention to the sickness and health of monks." ¹⁴³⁷

The context of Pachomius's letters indicates the significance of monastic sickness, and indeed it was significant. According to Pachomius letters it is argued that the importance of providing care to the sick is due to keeping all monks healthy, especially in the context of the Easter celebration, where they should also return to the monastery in good health. And the blame would have fallen on them if some people became sick because their illness would have indicated negligence. Thus, patients were relieved of their requirements to worship, diet and manual labor, and left to rest and recover: "That this was indeed a risk during occasions of collective travel is reflected by the later Rules, attributed to the Father but actually a later accretion, which mandate that an officer—here identified as a minister [aegrotatum], a "nurse"—

¹⁴³³ Rousseau 1985: 74-75; Crislip 2012: 46.

¹⁴³⁴ Crislip 2012: 46.

^{1435 &}quot;Use of the Bible in the surviving magical papyri increased dramatically in the fourth century and remained high through the sixth. This was one strategy by which the Christian monk could distinguish himself from the magician and by which the ill-defined demonic specialist could take on the more specific identity of Christian monk." Brakke 2006: 233.

¹⁴³⁶ Crislip 2012: 46.

¹⁴³⁷ Crislip 2012: 46.

remain behind with any sick monk during funerals, the most common occasion for all monks to travel outside the monastery in masse." ¹⁴³⁸

Monastic sickness meant a lot to Pachomius, as he was aware of the concerns about the risk of his spiritual children's negligence. Pachomius explains: "Let us toil, 'carrying each other's burden,' as Christ 'carried our diseases in his body' without flinching. If Christ is our master, then let us imitate him and bear his injuries, lest in the age to come we be separated from our brothers who suffered afflictions." According to Pachomius, Christ was considered the ideal and symbolised the healthy, contrary to Cassian's and Paul's evocations of Christ as the model for the sick. The sick monks in the Koinonia were considered by a cross, which showed who was notable or not notable; it prompted monks to present the highest ideal of Pachomian monasticism: The Christ-inspired provision of mutual support. On the other hand, this was considered a risky occasion for the monks if they were to be unsuccessful in achieving this obligation. 1439

According to Pachomius, sick monks are a matter of theological and moral import. The disease of monks in Pachomius's monastery lies not in the behaviour of the sick or in the interpretation of the moral significance of the disease, but in the specific difficulties that arise to provide mutual assistance between the monks. Monastic illness warns against the moral volatility of healthy people, rather than pointing to the merits or failure of asceticism. ¹⁴⁴⁰

8.11 THE LETTERS OF ANTONY

The seven letters of Antony (ca. 255-356 CE) are synchronous with the letters of Hathor and Pachomius, and date back to the early 4th cent. CE. In these Letters, the essential elements that characterise the theological, hagiographical, and disciplinary reflections on the meaning and function of disease in the practice of asceticism are found. Antony conceived asceticism as a recovery and healing procedures, not only from physical illness but from the great universal wound inflicted on mankind as a result of Adam and Eve's disobedience. The seven letters of Antony provide real treaties that appropriate to the pastoral needs of several communities. He addressed his instructions to various monastic communities and addressed his correspondents by saying: 'beloved sons in the Lord', 'beloved brothers', 'my dear children'. 1442

1439 Crislip 2012: 47.

¹⁴³⁸ Crislip 2012: 47.

¹⁴⁴⁰ Crislip 2012: 47–48.

¹⁴⁴¹ Term ακκησις definitely means exercise, training, "exercise regimen" than "asceticism," it argues that it was used for sports term before its using in a monastic pattern. Antony's ascetic follows a pure physical exercise. He spent the day on self-working (such as weaving baskets), he spent his night without sleeping in vigilant prayer. He used to eat only one time per day bread, salt, water, no meat, no wine, and fasted many so he can eat only every two days, with continuing praying, and weighing. his "thoughts," so that he abandons the emotions that keep him away from his goal. Harmless 2004: 61-62.

¹⁴⁴² Rubenson 1995: 46.

According to the content of the letters, scholars have divided them into two separate groups: I and II-VII. Health and illness occupy an important part in Antony's letters "Letters 2-7 establish the centrality of fallen existence as disordered, demon-afflicted, and sickly and the role of Jesus Christ and the saints as the physicians of the cosmic wound. Letter 1 lays out the practical disciplines by which the Christian—particularly the ascetic—may reclaim spiritual health that prefigures the future reunion with the divine." 1443

Antony's letters prove the concept of the "Physician", an idea that was derived from early Christology. As on many occasions, the New Testament ¹⁴⁴⁴ and the Gospels reference Jesus as a healer who is able to cure diverse diseases. According to Antony's faith, the practice of asceticism plays the main role in healing illnesses, matter which he explains in his letter. He typified the world and its creatures in a medical way.

Antony tried to synthesise his Christian monasticism and the history of Christian salvation, indicating to the providential economy of salvation, based on definite teachings such as Origen's *Peri Archon*. ¹⁴⁴⁵ According to Origen theology, the creation of the world was compatible and convenient for the several otherworldly creatures. All spirits and otherworldly creatures were according to their innate nature created by God. But they fell and turned into ψυχὴ "souls" when they were exhausted by this endless heaven. ¹⁴⁴⁶ Presumably, the word ψυχὴ is derived from ψύχομαι, because they were ψύχομαι "cooled" and fallen. ¹⁴⁴⁷ "This 'first movement' (6.102), the cooling-off of the mind, engendered the created order's present and confusing diversity: angels, in all their multiplicity; demons, with all their subcategories; and humans. For humans, apparently unlike the angels and demons, the cooling-off that followed the first movement caused the death of the "faculties of the mind" and the loss of *gnosis*, "so that they [humans] can no longer know themselves after their first formation," and "they have all become irrational and serve the creatures instead of the Creator". ¹⁴⁴⁸

In correlation to this ascetic theology, the cosmos took another form different from its primary nature; as a result, messy creatures were found and caused what Antony stated a "great wound". It is argued that the separation of the universe was a sign of fall and further perpetration of sins. 1449

Antony's philosophy of healing included the usage of Christ's saving medicine of ascetic practice, achieved by practicing early Christian asceticism, which would help the monks to heal and return to their health. He further stressed the need for purification of the whole body, and he explained how to purify the

¹⁴⁴³ Crislip 2012: 50.

¹⁴⁴⁴ The reference to the New Testament in the magical texts has been confirmed many times even in the texts outside the monastery and it seems that it has proven effective in expelling evil spirits, as happened with this monk "In one anecdote, a demon shows up in a monk's cell and recites by heart the book of Numbers. The monk asks it whether it can recite from the New Testament as well, and at the sound of the word *New* the demon disappears." Brakke 2006: 232.

¹⁴⁴⁵ Rubenson 1995: 67.

¹⁴⁴⁶ Rubenson 1995: 51.

¹⁴⁴⁷ Rubenson 1995: 66.

¹⁴⁴⁸ Crislip 2012: 51.

¹⁴⁴⁹ Crislip 2012: 51.

eyes, ears, tongue, hand, reaching to feet and even the gentiles with the help of the mind. This illustrates how purification with the aid of the Holy Spirit and Jesus Christ (the physician) cures an illness. The idea of sickness and proctological health appears as the main elements characterising the salvation history; beginning from man's separation from god and fall into sin the prophets' endeavor to heal the "great wound", to the instructions of Jesus Christ to help humankind to heal from their "great wound", and the expectation of reaching salvation: "In Antony's stage of salvation history, humanity possessed the cure, but some still refusing it, preferring to immerse themselves lasciviously in irrationality." Heretics too, such as Arius, continued to threaten humanity's health, by wounding it with false teachings. All of the preceding is very much in the tradition of Origen's medical Christology." Thus, the main feature of Antony's letter is to stress the importance of the ascetic life in relation to the health of the monks, which is a process that differs from the Hathor and Pachomius letters.

8.12 ILLNESS, DONATION AND HEALING

Another role of the monastery in the healthcare system was manifested through the act of laymen giving donations to be healed, especially in the form of donating a child. The monastery was involved in this process as it was the center for forgiveness and providing healing. The children were gifted to the monasteries on the account of different circumstances, to become a monk or to become a long-life servant in the monastery. Here I will discuss the case of being a servant in the monastery in light of various texts that mention this type of donation and its relationship to medicine. In addition, I will highlight the examples of self-donation, which I consider pertinent in this regard. Usually, parents endowed the monastery with their child, due to the miracle healings granted by the saint of the monastery. They felt indebted to the holy saint who granted their healing, so they decided to enrol their children to serve in the monastery. The same thing also happened in regards to self-donation. After becoming cured, the patient felt that he owed him the honourable saint who granted him this miracle, so he donated himself or any other precious savings he had to the monastery. It is worth noting that this process was carried out legally: the donor or his parents would have to enter into a legal contract regarding their donation to the saint's sanctuary. Such contracts reflected the cognitive background of the families that were aware of the relationship between illness, donation, and curing.

These legal documents provided details concerning the circumstances of donation, as some parents would commit perjury to and neglect their obligation. Furthermore, they made such donations to atone for their sins, as they connected their misdemeanour with the illness of their child. Firstly, the parents brought their

¹⁴⁵⁰ Crislip 2012: 57.

ailing child to the topos of the saint to heal their disease, and when they would be healed, they decided to grant this child to serve there for a lifetime. ¹⁴⁵¹

Such donations occurred at the shrines of renowned Egyptian saints such as Colluthus, Menas, and Phoibammon. In these monasteries, many proceedings related to the healing process occurred there.

The donation process formed an important part of the monasteries' role as a health care centre in Egypt. Through the miraculous powers of saints and the use of sacred materials such as oil and water, monasteries played an integral role in the healing process. These miraculous stories reflect the perspective of those that turned to the monastery as a holy place in the belief that their suffering will be eradicated without depending exclusively on medicine and drugs. They realised that by approaching God and the holy saints through the monk's prayer, there was another way to be healed excluding medicine and magic. These documents provide us with a number of different diseases that are not mentioned in the medical or even the magical documents such as dropsy, blindness, and devil diseases. These documents tell us that each of the diseases included in these documents lasted for a long time, and were not new diseases. Hence, the patient decided to resort to a miraculous cure since he had suffered for a long time (three years, from the time of birth), and in many cases had he tried all medicines prescribed to him by doctors with no avail.

8.12.1 THE MONASTERY OF APA PHOIBAMMON

The Monastery of Apa Phoibammon on the mountain of Jeme contains a number of documents relating to donations "ενγραφον ν. Aωρεαστικον, δωρεαστικον ἔγγραφον". These documents concern children who have been granted to the monastery by their parents as life-long servants and date back to the 8th cent. CE; 1452 only a single document dates back to 781-791. The parent's primary motive was to obtain the miraculous cure of Apa Phoibammon at his holy shrine, a procedure that used holy water of the altar. In some cases, the donation was for the sake of an incomplete vow or a false vow promised to the holy saints, or for the corrupt behaviour of the wrongful parents. A deadly illness was inflicted on the child of such parents as a punishment for their action, therefore, as a result they donated their child at young age to the monastery, in particular to the shrine of Apa Phoibammon since this was a site of healing.

Documentation on child donation at the Monastery of Apa Phoibammon, reveal that Apa Phoibammon punished parents for their mistakes, often due to the carelessness of previous pledges, by bringing illness over their children. Consequently, the parents brought their sick children to dwell in the *topos*, beseeching

¹⁴⁵¹ Schenke 2016: 497.

¹⁴⁵² Biedenkopf-Ziehner 2001: 89–92.

¹⁴⁵³ Crum and Steindorff 1912: nos. 78–103.

¹⁴⁵⁴ Schenke 2016: 497.

the saints to receive the receive communion and be purified with sacred water to ultimately be granted healing. After that the parents donated their children to serve at the Monastery of Apa Phoibammon in gratitude for his miraculous healing. ¹⁴⁵⁵

Documents on Child donations were drawn up in official contracts in which there was a summarised paragraph referring to the circumstance of the miracle healing. Each contract had a fixed formula for accepting the covenant created by the scribe, who signed his name at the end of the contract. It was authenticated by a notary and usually two witnesses would have to testify the contract as in any legal contract. These contracts contain details for the reason of the donation and information on the disease that the donor or his child suffered from, as well as the type of denotation such as serving in the holy *topos* or paying a fixed sum of money. 1456

Nine donation documents mention several lethal infancy illnesses that the saint helped to heal, whereby the child subsequently became healthy and was donated to the shrine of Apa Phoibammon (P.KRU 78, 79, 81, 84, 88, 91, 93, 98, 102).

In P.KRU 78, the father Viktor donates his son John to express his appreciation and gratitude for the saint's prodigious healing. 1457 The donated child was obliged to pay the monastery one solidus per annum.

P.KRU 78, II. 15–25

нимса фамоте иромпе хімтаіхпоч ачге еграм ероч ипечфиг пирос де ерфампиоуте ифагіос апа фоівамифи иптооу ихние еіхф мімос] хе ерфампиоуте ифагіос апа фоівамифи иптооу ихние еіхф мімос] хе ерфампиоуте ифагіос апа фоівамифи харіхе иач $\dot{\mu}$ $\dot{\mu}$

After three years I had begotten him, he fell into a great sickness. When he remained ill then with no healing occurring to him, I thou[ght] and I promised him to the *topos* [of Apa] Phoibammon on the mountain of Jeme, saying, "If God of saint Apa Phoibammon grants him healing, I will donate him to him and he will be contributing to him lifelong (the payment of) one solidus per year eternally.¹⁴⁵⁸

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¹⁴⁵⁵ Schenke 2016: 506.

¹⁴⁵⁶ For instance, P.KRU 78.

¹⁴⁵⁷ Maccoull 2009: 160.

¹⁴⁵⁸ Crum and Steindorf 1912: 254.

Donation contracts were usually issued by the father of the child, however some of them were issued only by the mothers who might have been widowed or divorced. For example, in ca. 765 and 785a, a widow named Kalisthene donated her son Merkourios as a servant to the shrine. Her son became ill, and she subsequently beseeched the saint to cure her child promising to grant him to the holy monastery. When her son became an adult, he accepted this agreement:

P.KRU 79, ll. 43-52

алдшріге мпамеріт мпамеріт нішре меркоуре егоун епеімонстнріон етоуалв прагіос авва фоівамши мптооу идиме таречішше ечш ибауон ероч епечсшрр ми печноудк ми ршв нім ихріа ена пмонстиріон етоуалв рпечдовіс ща енер ми прісе инечбід ми пмісю с мпечсшма єгає ечри пмонастиріон егає ечрипівох мпімонастиріон прос ткелеусіс мпеіпршестос 1459

"I declare that I donated my beloved son Merkoure to this holy monastery of saint Apa Phoibammon on the mountain of Jeme in order that he be a servant for it for its sweeping and its sprinkling and for any necessary thing for those of the holy monastery, and so that this holy monastery be his master eternally, and (master over) the work of his hands and the wages of his body, whether he be in the monastery or outside of the monastery, in accordance with the demand of this superior (*proestos*, i.e. Sourous)." ¹⁴⁶⁰

Moreover, P.KRU 86 attests that a woman called TAXHA "Tachel", who was accompanied by her sister ELISABET "ELISABET", endowed the monastery with her son AGANACIOC "Athanasios" but she did not follow through with her vow. She donated her sick child as a small infant of seven months; however, when her son became an adult, the mother Tachel acted against the donation. As a penalty for this contravention, God inflicted her son with a demon possession. The mother promised the saint that she would grant her son to the topos to be a life-long servant, if he received the saint's healing:

P.KRU 86, Il. 18-36

1.45

¹⁴⁵⁹ Crum and Steindorf 1912: 258.

¹⁴⁶⁰ The Cult of Saints in Late Antiquity [http://csla.history.ox.ac.uk/record.php?recid=E00180], (last accessed: 13.09.2019).

ΑΥΧΠΕ ΟΥΦΗΡΕ ΦΗΜ Ν2ΟΟΥΤ ΝΑΙ ΑΝΟΚ ΤΑΧΗΧ ΤΕС2ΙΜΕ ΑΥΦ ΤΕΕΛΕΥΘΕΡΑ гипечиегсафу невот абрит имоч нбабуон егоүн епионастиріон етоуаав напа фоіванши мптооу ндине деерфанпносте тосхоч епмоу †натаач егоүн ептопос етуоаав минсшс гмптрепноүте аузан ΜΠΚΟΥΙ ΝΟ)ΗΡΕ ΝΥΕΙ ΕΡΡΑΙ ΠΑΙ ΝΤΑΙΤ ΡΑΝΥ 2ΙΠΒΑΠΤΙΟΜΑ ΕΤΟΥΑΑΒ **ΧΕΔΘΑΝΑCEIOC** ΑΠΑΛΟΓΙCΜΟΣ ΕΤCOPM ΝΟΣΤ ΕΥΝΟΘ ΝΝΟΒΕ ΕΙΕΠΙΒΟΥΛΕΥΕ επεικογι νωήρε ζε ννείταα (ζε ννατάα) [επ]μα 2μ πτρεπνούτε ΘΟΟΙΤ ΕΧΝ ΤΑΝΟΜΕΙΝΤΑΙΑΑΟ ΕΥΝΕΧ ΠΚΟΥΙ ΝΟΙΗΡΕ ΕΡΡΑΙ ΕΥΝΟΘ ΕΟΙΟΙΝΕ еачр оүноб ночоещ ги госте итаопч итоот ин очон ини етнач ероч ЖЕ ЕЧМОУ РИ ПТРАР ПМЕЧЕ МПИОВЕ М[N-T]ТОХМНРІА МТАІААС АІОУЕРМ КТОІ аппаралкалеі мппетоулав ги печтопос де екфанпаракалеі мпноуте нахаріге мпталбо мпеіфнре фин †наноди єгоун єптопос фа енег прос тагомологсіа ифорп аппант ипоутє пфангну фи гнту сби ΠΚΟΥΙ ΝΩ)ΗΡΕ ΑΥΧΑΡΙΖΕ ΝΑΥ ΜΠΤΑλ60 ΑΙΥΙΤΥ ΝΝΑ61Χ ΑΙΝΟΧΥ Ε20ΥΝ Ε20ΥΝ ЕПТОПОС ЕТОУААВ ЕВОЛ ДЕ АЧРЕ ЕРРАІ ЕУДОМО ИДАІМОМ АРОМЕ МІМ МАУ ероч аүр фпнре ммоч

"At this time in which we are now, a small male child was born to me, Tachel, the wife and married woman. In his seventh month, I pledge him as a servant to the holy monastery of Apa Phoibammon on the mountain of Jeme, in the following manner: "If God saves him from death, I shall donate him to the holy place (topos)." Afterwards, when God let the small boy grow up and he developed, this one who I have named Athanasios at the holy baptism, my confused reasoning led me into great sin, deciding with respect to the young boy, that I shall not donate him to the holy place. When God looked onto the lawlessness I had committed, he cast the young boy into a severe illness, which lasted a long time, so that I, and anyone who saw him, assumed that he died. When I remembered the sin and audacity I had committed, I turned around again and I entreated the saint in his place (topos) in the following manner: "If you entreat God and he grants healing to this small child, I shall place him in the topos eternally in accordance with my first agreement."- Now, the merciful God, the compassionate, took pity on the young boy and granted him healing. I had carried him in my arms and had placed him in the holy place (*topos*), because he had fallen into a demonic illness. Everyone saw him and marveled at him."¹⁴⁶¹

P.KRU 80 is a donation document dated on 12 March 776 CE issued by a father called Zaha "Zael" from Hermonthis, who granted his child abpam "Abraham" at birth to be a servant to the saint, but he ruled against the vow. Thus, his son became very ill, and the father intended to donate his child to the holy shrine to recover from his illness.

P.KRU 80, Il. 27-30

митфаидиту диптречхаріzе нач оүн мпталбо аітало мпфире фим аіхітч егоүн ептопос етоуаав аіталч егоүн ептопос еуфрх оүн мппетоуаав дітоотк иток соурос пепроестос ауф поікономос мпионстиріон етоуаав [....]аі† плоуосі епсі дфреастікф(н)

"When he had granted him healing, I lifted the small boy and brought him to the holy *topos*. I donated him to the *topos*. As a security for the saint, represented through you Sourous, the *proestos* and *oikonomos* of the holy monastery,[....] I produced this donation document." ¹⁴⁶²

Donation documents that belonged to the monastery are often witness to the miracles, therefore they were preserved in the archive of the monastery. This is unequivocally expressed in P. KRU 100, II. 50–52:

P. KRU 100, II. 50-52

ан† паоуог акми петдфрістікой актаач мпаенфт пепіскф(опос) ми пікономос таречкаач зи твівліфонки мпиа етоуаав 1463

¹⁴⁶¹ Translation: G. Schenke. The Cult of Saints in Late Antiquity [http://csla.history.ox.ac.uk/record.php?recid=E00188], (last accessed: 13.09.2019).

¹⁴⁶² Sckenke 2016: 509.

¹⁴⁶³ The Coptic text found in: Papyri.info [http://papyri.info/ddbdp/sb;1;5607/], (last accessed: 14.09.2019).

"I proceeded and produced this donation document. I handed it over to my father, the bishop and *oikonomos*, so that he would place it in the library of the holy place." 1464

Certain donation contracts report that once the child reaches the age of adulthood, they have the right to choose between continuing living in the monastery or not. In certain cases, they would grant money to the monastery. In P.KRU 78, the parents confirmed to pay "one solidus per year eternally":

P.KRU 78, ll. 21-25

ерфан пноүте ифагіос апа фоіванифи харіzе нач ипталбо фаідфріzе имоч єгоун єроч нечффіе ечсүнтелеі єгоун єроч ипечффіе ечсүнтелеі єгоун єроч ипечфире тиру тиру єноуоголок[отт]і[нос] ката ромпе фа енег

"If God of saint Apa Phoibammon grants him healing, I will donate him to him and he will be contributing to him lifelong (the payment of) one solidus per year eternally" 1465

It is clear that the children who were brought into the monastery became servants. In P.KRU 91, dates back to the 27. March - 25. April 781, both the father "Pesynthe" and the mother "Tasia" preferred to give the superior (προεστώς) of the monastery the decision whether he would like the child to be a servant at the holy *topos* or for money to be donated to the monastery. When the child πανιάς "Panias" recovered, the superior accepted him as a servant of the sanctuary. 1466

P.KRU 91, 11-20

анхі ммоч егоүн епифнастнрі етмнау анноух нихфтнріон ммооу мпна етоуаав ахи пусфна апноутє ми нефхнх ипмартурос етмнау харіхе нач мпталоф ачсфк еөн коуі коуі анпаракалеі мпоікономос етпроріста ахи птопос етмнау тарухі

¹⁴⁶⁴ Schenke 2016: 511.

¹⁴⁶⁵ Schenke 2016: 508.

¹⁴⁶⁶ P.KRU 91 (21–26). Crum 1905: 184. The Coptic text in: http://papyri.info/ddbdp/sb;1;5602/#from-app-app01.

типросфора итоти егоүи епишиастнріои етоуаав хіпои аикаац игоуи мпна етоуаав игенкоуі игооу ерепоікономос гіпорге ероц иннаі анок пес (γ) и θ (є) пцеішт фантецге ептахоф игоуи мпна етоуаав ицсшк афи коуі коуі итерепиоуте де панігап мие ои пщіне ипфире фии ицхаріге нац мптахоф аихі миоц апиені аир гаг игооу ейгупоргі ероц фантепцсшна тшк хіпои

We brought him into that monastery and we poured the water bowl of the holy place upon his body, God and the prayers of that martyr granted him healing, and he improved little by little. We asked the *oikonomos* who presides over that topos, to receive our offering in the holy monastery, then we brought him into the holy place a few days, while the *oikonomos* took care for him together with myself, I am Pesynthios, his father, up until he gained healing at the holy place and improved little by little. Then, when God, the one of the true judgments, had visited the little boy, and granted him healing, we took him to our home and spent many days taking care of him, until his body became stronger. 1467

In addition, in P. KRU 88, a person called Theodoros, a bricklayer and his wife Maria grant their boy named Sonchem to the topos of Phoibammon where the boy will repay what he reaps of his labor in the form of a servant of longevity:

P.KRU 88, Il. 5-9

амок өефдфрос асгал мпооү игооү еттеріге исонхни пафире италхоч евох ги намехос интречналу маріа елдфріге имоч ауф еї† имоч иерит егоүн ептопос етоуаав ифагіос апа фоуванфи иптооу ихени иенечгооу туроу ипечфиг жекас ечнаффпе ипечфиг ечф игигах нач ичффпе еч† ипечфиг евох же апноуте еіне ноуффик ежфу ката печоуфф хінтечинткоуі 1468

¹⁴⁶⁷ Author's own translation.

¹⁴⁶⁸ Crum and Steindorff 1912: 282

"I Theihodore am writing today to donate Sonchem my son whom I engendered of my body from his mother Mary, donating him and giving him by vow to the holy topos of the holy Apa Phoibammon on the mountain of Jeme, for all the days of his life, so that it (the topos) will become and be his lord all the days of his life, he being a servant to it and giving it his efforts all the days of his life: because God brought a sickness upon him, according to his will, since his childhood."1469

In P.KRU 89, a child called Abraham is to serve in the monastery in which his parents add to the donation contract that if their son does not wish to serve in the monastery, he would have to donate anything from his own work after arranging it with the *oikonomos*:

P.KRU 89, ll. 42-45

ауш он ерфанпефнре коүі нтеміне оушф етмргигал мпионастнр(ion) ΠΜΑ ΝΤΆΡΟΥΧΑΙ ΝΡΗΤΎ ΠΕΤΎΝΑΧΠΟΥ ΤΗΡΎ ΡΗ ΠΕΥΕΡΓΟΙΧΕΙΡΟΝ ΕΥΝΑΤΆΑΥ епмонастиріон прос бе етчнаподк ката күрш екшномос

"Furthermore, if this particular young boy wishes not to be serving at the monastery, the place where he has been healed, he shall donate to the monastery whatever he will bring forth through the work of his own hands, according to the manner in which it will be arranged with the oikonomos at the time." 1470

Another donation text P.KRU 81 contains an obligation to donate a child called anapeac "Andreas" to the saint after healing him from his illness, without determining the type of grant. ¹⁴⁷¹ Also, P.KRU 85, ll. 15– 20, contains a vow from the parents Severos and Lia in which they and they clearly decide to grant money for the lamp of the saint's shrine due to the miraculous healing of their child Panias. Another document (P.KRU 95, ll. 22–25) contains a special donation in which the mother called Mary decides to bypass the donation to include her son Komes and his children to serve all their life in the monastery. 1472

¹⁴⁶⁹ Maccoull 2009: 158.

¹⁴⁷⁰ Schenke 2016: 513-14.

¹⁴⁷¹ P.KRU 81 (ll. 20-23).

¹⁴⁷² Schenke 2016: 514.

Furthermore, the self-donation documents found within the donation documents related to the Monastery of Apa Phoibammon, like P. KRU 104, written in 771-772 CE may have been found at the monastery site. This document related to a man called Peyronios, son of Georgios, presumably he was belonging to Jeme town. He donated himself to the monastery of Apa Phoibammon because he was recovered from his deadly illness only after using altar's holy water. In line 32-33 he stated:

P. KRU 104, Il. 32-33

идодоне енд измузах ероч енеуентихи
 ероч и
өө илоүүмүзах идодон улуулуулуу өрөн илоүүмүз

And I shall be serving it and act towards it in the manner of a servant acquired by money.

8.12.2 TOPOS OF SAINT COLLUTHOS

Evidence of miracle healings was also found also the *topos* of St. Colluthos. White Monastery manuscripts Paris B.N. 129,¹⁵ and Borg. Copt. 109, composed of only 13 parchment leaves (i.e. 26 pages of a former codex) contain evidence of the miracles at St. Colluthos. The preserved sheets are distributed between Paris and Rom: six sheets are in the Bibliotheque Nationale in Paris, and seven sheets that were once in the Museo Borgiano at Velletri in Rome and are now in the Bibliotheca Apostolica Vaticana. The Paris pages 165-172 contain four miracles, two are incomplete and two complete miraculous of the saint, three healing and a learning miracle. It is argued that the first 26 lines of page 165 conclude a story in which doubters are convinced by a sign of Saint Colluthos that it is indeed the place of his bones. Then they went there and got cured:¹⁴⁷³

P 129¹⁵ fol. 22 ro, col. I, ll. 9-26

ахатат изна фоле изоох . Поля $\overline{\gamma}$ е поля итерохиях ещичел изоох . Поля $\overline{\gamma}$ е поля итерохиях $\overline{\gamma}$ е изоох . $\overline{\gamma}$ е поля $\overline{\gamma}$ е

¹⁴⁷³ Schenke 2013: 212–213.

They were convinced that this was the place of the bones of Saint Colluthos, until this very day. So, when each one of them had seen the sign which had occurred, they themselves went and got healing through him. 1474

The following pages 165-167 contain the tale of a young woman named Pellagia whose breast has been invaded by a demon and become very swollen. After a long period of suffering, she visits the sanctuary of Colluthos and gets healed by the power of the cross. She decides to donate all her jewellery to the saint's shrine because of the miraculous healing:

P 129¹⁵ fol. 22 vo, col. I,7-col. II,5

αςβωκ επηγρησία μπραγίος κολούθος αςиκότκ , αλώ νέςτω μμος τε прагіос κολογθος воноеі єрої ર્ખે пігісє ayoywnz Le ebol z $\bar{\mathbf{n}}$ oyzopoma nteywh : \mathbf{nexay} nac Le twoyn nwwph йпєс̄₽ос итевшк этьчээги йпиа йрат ΑΥΟ ΝΤΕΥΝΟΎ ΤΕΝΑΟΥΧΑΪ ΕΒΟλ 2Μ ΠΕΙΟΙΟΝΕ

She went to the martyr shrine of saint Colluthos and lay down. She was saying: "Saint Colluthos, help me in this suffering." He then appeared in a dream at night and said to her: "Rise early and go and stand by the place of the silver cross. You will be safe from this illness immediately. 1475

The woman acts in accordance with these directives and the demon is subsequently expelled. At the end of the story, we read that she donated all of her precious trinkets to the shrine:

$P\ 129^{15}\ fol.\ 22\ vo,\ col.\ II,\ 27-P\ 129^{15}\ fol.\ 23\ ro,\ col.\ I,\ 17$

Ntoc be aceine fbol ineckocmhcic throy . Actamio nekibe cnte \bar{n} 2at . λ CTW66 ймооү епро йпиартирион

¹⁴⁷⁴ Schenke 2013: 216–217. The English translation by the researcher adapted from the German translation by Schenke.

¹⁴⁷⁵ Schenke 2013: 218-220.

етреуфиле ирписеуе йпталбо итацфиле нас свол гітоотц йпгагіос колоуюс

She then brought forth all her jewelry. She made two silver breasts and affixed them to the door of the martyr shrine to let them be a remembrance for the healing which occurred to her through saint Colluthos. 1476

Pages 167-170 contain a story about a rich man whose valuable belongings are stolen from his house, while he spends the night in the sanctuary of Colluthos. He accused his servants and put them in jail. After that, he goes to the sanctuary of Colluthos to ask St. Colluthos about this matter. There, the saint appears to him in a dream and tells him where the valuables are located. The archon finds them and thanks the saint, and hence the prisoners are released. As a result, he donates half of his valuables to the saint's shrine:

P 129¹⁵ fol. 24 vo, col. I,14-25

ауш тпафе йнентацентоү тнроү ацтаау егоүн ептопос йпгагюс колоүөөс. Евол же ецгарег ероц мпцка сноц

Half of all the objects he had found, he donated them to the shrine of saint Colluthos, because he had kept watch over him and (thus) he did not cause any bloodshed. 1477

Moreover, pages 170-172 tell us the story of a woman who has been suffering from dropsy, for a long period of time. When she hears of the miraculous healing in the sanctuary of Colluthos, she goes there with her husband and asks the saints to help her. The miracle act of their healing is no longer preserved, but the saints do state that it will happen to their delight and to the astonishment of all those present.

Borg. Copt. 109: The healing of a blind man by the milk of a woman

Borg. Copt. 109: $\overline{c\kappa}$ to $\overline{c\kappa}$ (221-227) contains a miracle that happened to a blind man who was told by the saint that he would be healed and be able to see again by the help of a woman. And when he finds her, she anoints his eyes with milk from her breasts in the name of the saint. After doing so, the miracle takes place and the blind man begins to see. Moreover, the woman becomes pure and her wrongdoings are atoned

¹⁴⁷⁶ English translation by me of the German translation by Schenke 2013: 227.

¹⁴⁷⁷ English translation by me of the German translation by Schenke 2013: 227.

through the power of the saint at the shrine. Due to the miracle, the man and woman dedicates donations to the martyr's shrine:

Borg. Copt. 109, p. 227, col. I, 21-col. II, 12

иййса наї апоуа поуа єїнє йпєнтацернт ймоц дй пєцні аутаау єпнартнрюн йпдагюс колоуююс, ауоушм аусш дй пєцтопос, аувшк єпеунії дй аувшк єпеунії дй оуєїрнин єу†єбоу йпноутє ий пдагюс колоуююс

After these things, each one brought from his house what he had vowed (to give). They donated it to the martyr shrine (*martyrion*) of saint Colluthos. They are and drank at his shrine (*topos*) and went back to their home in peace glorifying God and saint Colluthos. ¹⁴⁷⁸

Another almost completely preserved miracle pertains to a rickety man and a prostitute. The man suffers a great deal, and after all the tribulations of this lame man. Saint Colluthos comes to him in a dream and tells him to search for a prostitute named Maria who will heal him. He crawls himself on the city roads searching for Maria's house in order to spend the night with her and pay her, as the saint has told him to do so. When he finally reaches her home, he feels that he is not convinced by her, and so he decides to go to a famous magician in the city to ask him for a suitable drug to give it to her. Unfortunately, the following lines are missing from the text, but he seems to ultimately convince her to visit the martyr's shrine and to become a respectable woman. The text states that she gets a vision telling her to follow the steward. She returns to her house, gives the shrine all her possessions, and remains there as a servant and craftswoman:

Borg. Copt. 109, p. 244, col. I, 16-col. II, 8

йтос де астфоун асвшк епеснії , асеїне йтесхріх тирc , ий пессовте тирd , асьш би итопос ишбагіос коуолююс

¹⁴⁷⁸ English translation by me of the German translation by Schenke 2013: 245.

¹⁴⁷⁹ Borg. Copt. 109, p. 244, Col. 11,24-26. Schenke 2013:267.

She then rose and went back to her house. She brought all her necessary items and all her furniture and remained in the shrine of saint Kollouthos performing any service and working with her hands. 1480

8.12.3 THE SHRINE OF APA MENA

The miracles of Apa Mena are a part of a Coptic manuscript found at Hamuli in al-Faiyum, which dates back to 893 and is now preserved in the Morgan Library and Meuseum (Cod. M. 590). The manuscript is composed of three parts: the Martyrdom of Apa Menas, the Encomium on St. Menas, and the Miracles of St. Menas. The miracles of Apa Mena occurred at his shrine in the village of Maryut, where many pilgrims from all over the Christian world came to visit: "(in) the place where thy body is laid great wonders and healings shalt be wrought through thee in the name of Our Lord, Jesus Christ". 1482

The Saint Apa Mena text (Pierpont Morgan Codex M 590 ff. 19-49) comprises a collection of 17 miracles, in which some of them include self-donations due to miraculous healing.

The Fifteenth Miracle "Cure of Alexandrian man possessed with demon":

In the fifteenth miracle wrought through the holy Apa Mena, there is a man in the city of Alexandria who has been possessed by a ruthless devil from his youth. The devil has forced the man to crush his teeth like a wild boar. Overwhelmingly, the devil would throw him into the sea to kill him. His relatives send him to the shrine of Apa Mena to grant him healing. On their way, Apa Mena appears to them on the road in the form of a soldier. He takes the possessed man and goes back with him to the shrine. There he hangs the man topsy-turvy, as if the man is suspended between the sky and earth. After that, the demon promises to leave the man, they release and carry him to the crypt (katabasis) where the saint's body is reposed:

Col. I, l. 28-col. II, l. 32

аухіту епеснт еткатавасіс : епна мпсшма мпрагіос апа мниа апоікономос мптопос хі ноукоуі ниер р \bar{m} пефанос етмоуг [е]псшма мппетоуаав : аусфрагіzє ммоу :- аусшт \bar{m} де епнартурос етоуаав еушахе н \bar{m} оущшшт евох еухш ммос хе амоу евох рм пепхасма мпноуте нуоухаі пакафартон : аієі гар хе [еі]напатассе ммок р \bar{m} терін : ахха птаієнтк епеіма : хекас еіе \pm ф[1]пе нак : р \bar{m}

1482 Drescher 1946: 109.

¹⁴⁸⁰ English translation by me of the German translation by Schenke 2013: 267.

¹⁴⁸¹ Drescher 1946: 105.

еголи ептопос. икфг . Agi евоу ибит $\dot{\mathbf{q}}$ апьфме олдуі ителиол . Ag $\dot{\mathbf{p}}$ ителиорора империор етину епатопос . Арф ителиор ад $\dot{\mathbf{p}}$ олфуб

"And they lifted him up and carried him down to the crypt to the place where the holy Apa Mena's body reposed. The *aeconomus* of the shrine took a little oil from the lamp burning before the saint's body and made the sign of the cross over him. And they heard the holy martyr sternly addressing the devil and saying, 'Come out of God's handiwork, unclean one, and let him be cured. For I came to smite thee in the way but brought thee hither that I might shame thee in the midst of all these multitudes that come to my shrine.' And immediately the devil became a flame of fire and came out of him. The man became well forthwith. He made his offering to the shrine and went home, glorifying the God of the holy Apa Mena." 1483

The sixteenth miracle is about a Samaritan woman from Alexandria who is suffering from a one sided headache called a hhikpànion "hemicranium". 1484 No doctor has so far been able to cure her illness. Hence, she opts to go to the shrine of Apa Mena after a Christian woman tells her" "You might rise and go to the shrine of Apa Mena; for everyone who goes to his shrine is cured". On her way, at the port of Philoxenité, a lodge keeper sexually assaults her but she resists. She preferred death than completing this vile act. She invokes Apa Mena to help her and the holy Apa Mena appears to her and says:

пехач нас анок пе мниа пентареі нхін поүні єтвинт $\overline{\mathbf{q}}$. Итаієї єнармє пталбо нафопе не. 1485

"He said to her 'I am Mena for whom you left your home. I am come to save you from this wicked man. When day dawns, come to my shrine and you shall be healed." 1486

¹⁴⁸³ Translation: Drescher 1946: 119.

¹⁴⁸⁴ γγμικρανιον, γγμεκρανιον is exactly the mirgraine. A Greek loanword cf. ἡμικράνιον "pain on one side of the head or face; migraine". Liddell/Scott/Jones 1996: 772b. γγμεκρανιον (scala nº 44, p. 160). This disease occurred in a medical recipe Ch 209. (See 5.2).

¹⁴⁸⁵ Col. II, ll. 13-22. Drescher 1946: 30.

¹⁴⁸⁶ Translation: Drescher 1946: 122.

She is protected from the violator and completely cured. As a result, she converts to Christianity and serves the monastery for the rest of her life:

миисфс [α с]ффт мпвф ите[с α пе] α соф [ес] α 1аконеі ун пнартуріон фа пегооу мпесмоу

Afterwards she cut off the hair of her head and remained serving in the martyr shrine until the day of her death. 1487

The rapist also falls ill and his hand becomes like a stone. He goes to the Monastery of Apa Mena and asks the holy Apa Mena for forgiveness. Thereupon he is healed after showing that he repents his sin and plight. He remains in the monastery and continues to serve Apa Mena for the rest of his life:

[n+nace]n[t] пекто[пос евох an е]10 иг[игах иа]к из пег[00ү ипа]иоү 1488

"I will never leave your shrine but be your servant for you till the day of my death." ¹⁴⁸⁹

The man donates all his belongings to the holy shrine after asking the arch-priest to give him the oil of the lamp, which is burning in front of the saint's body to anoint himself:

Зтооує де итереффове $a[q\dagger]$ ип[ефо]уої [епархипресв]у[терос ин поіко]и[ои]ос . aфпарака[леї] имооу. Xє арі тасапи ий[маі ноукоуї]инез итатазст изитф. [арну]итє пефиа тазо[і] итє пеї \dagger ткас λ [о] zй табіх a[пепре]свутерос xі ипиєз євох z[и п]фанос єтиоуз зіюн ипсома иппетоуа[ав · aф]сфрагізє итефбіх · итеўноў · aфло [євох] зи aфтихас · проме де aф и пети таф тирф езоун єптопос иапа инна ·

¹⁴⁸⁷ Col. II, ll. 13-18. Drescher1946: 122.

¹⁴⁸⁸ Col. I, ll. 24–27. Drescher 1946: 32.

¹⁴⁸⁹ Drescher 1946: 123.

"And in the morning, he went to the arch-priest and the *oeconomous* and besought them, saying, 'Please give me a little oil to anoint myself with. Perchance the saint's mercy will come upon me and put an end to this affliction in my hand.' The priest took the oil from the lamp burning before the saint's body and made the sign of the cross on his hand. At once the pain ceased. And the man gave all that he had to the shrine of Apa Mena and along with the Samaritan woman remained in the service of the shrine till the day of his death. And in the sixth month they received their visitation and both of them went to their rest on the same day. In peace. Amen."

The other part of St. Menas' miracles is found in a separate manuscript of the Hamouli collection: "It is anonymous but the mention of Apa Damian, Archbishop of Alexandria shows Monophysite auspices. The two Miracles related are not found elsewhere, either in Coptic or any other language." ¹⁴⁹²

The miracle occurs during the period of Apa Damian, the Archbishop of Alexandria, who was responsible for laying the foundation of the shrine. He brought workmen to complete the building and there was one of workmen called Mark, who was a pauper. He was very ill due to a poor liver and he had spent all his money on the doctor:

пархієпіскопос де ачфіне єтвінту. Аутамоч де ачфеп оуноб исфие. алла апноутє ин екф(sic)лил воноїх ероч. Ауталбоч. алла ачре єграї єуноб ійнітенке 1493

"The archbishop asked about him and was told: He has had a severe illness. But God and your prayers came to his aid and cured him. But he has fallen into extreme poverty." 1494

¹⁴⁹⁰ Col. II, ll. 1–29. Drescher 1946: 32.

¹⁴⁹¹ Translation: Drescher 1946: 123.

¹⁴⁹² Drescher 1946: 149.

¹⁴⁹³ Drescher 1946: 75, ll. 8–20.

¹⁴⁹⁴ Translation: Drescher 1946: 151.

One day this man receives a message from his wife because she and her children are hungry. While he is speaking with his son who works with him about this matter, the holy Apa Mena comes to them, disguised as a soldier on a white horse. When Mark tells him that he is poor and his children are hungry, Apa Mena ells him that he will pay him after work. The next day, Apa Mena comes to him and he gives him a clay brick as a wage for his labour; the man is astonished but Apa Mena asks him to take the brick back to his house in the city. When he reaches his city, he tells his wife what has happened and the brick turns into gold:

col. II, II.1-28, col, I, ll. 1-9

атечсение † $\bar{\text{н}}$ тессях епеснт епвір. Асеіне еграї нттшве. Хе еснанох с евох ги оубш $\bar{\text{н}}$ т: - итересенте де ймос еграї гй пвір. Пехас хе пасон йгсооун ан рш. Хе оу пе нтачтаач нак аїєрщпнре рш нтерекхоос наї. Хе оуштве номе. Те нтачтаас нан еіс гійте бе теноу. † $\bar{\text{н}}$ нау ерос еуваршт те. † $\bar{\text{н}}$ нау ерос еуваршт те. † $\bar{\text{н}}$ нау ерос еуваршт те. ачащкак евох ної песгаі. Хе чолі піхоеїс хе анок пентаїтаміос ген набіх нгосон де еухш ййос хе оуварштте. еіс гійтє асщшне асер ноув $\bar{\text{н}}$ хаг $\bar{\text{н}}$: - ауєїне $\bar{\text{н}}$ теуноу хе прагіос апа мина пе нтач† нау иттшве :- $\bar{\text{н}}$ 1496

"His wife put her hand in the basket and took out the brick, intending in her anger to throw it away. And when she bad taken it out of the basket, she said, you yourself do not know what he gave you, brother. I myself was surprised when you told me that he had given you a brick of clay. Behold now, I see that it is bronze. Her husband cried out, as the Lord lives, I made it myself with my (own) hands. And while they were saying that it was bronze, behold it was transformed and became beaten gold. At once they knew that it was the holy Apa Mena who had given them the brick." 1497

¹⁴⁹⁵ Drescher 1946: 152.

¹⁴⁹⁶ Drescher 1946: 82–83.

¹⁴⁹⁷ Translation: Drescher 1946: 154.



Figure 16. Limestone doorjamb, (After Quibell et al 1909: Pl. XIV).



Figure 17. A group of chambers (perhaps a hospital) (After Quibell et al 1909: pl. VI)

9. MEDICAL PROFESSIONS AND NURSING

A medical practitioner is a person who is in charge of providing healing measures in a systematic way to sick people. Healthcare services were provided in private houses, monasteries, or infirmaries. Coptic documents refer to different health care providers including doctors, nurses, elders, and lay practitioners.¹⁴⁹⁸

9.1 DOCTORS

Medical care as an organised profession commenced at the time of Imhotep. ¹⁴⁹⁹ The medical hierarchy in ancient Egypt was ranked by the following: the *swnw* "regular doctor", *imyr swnu* "overseer of doctors", *wr swnw* "chief of doctors", ¹⁵⁰⁰ *smsw swnw* "eldest of doctors", and *sbd swnw* "inspector of doctors". ¹⁵⁰¹

One of the most honorable and important physicians was *Peseshet* according to the stela inscriptions found in an Old Kingdom tomb (about 3100-2100 B.C.); she was recognised as an *imy-rt-swny* "overseer of doctors". She was also responsible for supervising or administering the staff of female physicians. ¹⁵⁰² Another example of a female physician from ancient Egypt is *Merit Ptah*, who is believed by Egyptologists to be the first-ever named physician. Her son immortalises her as "the chief physician" on her tomb. Another noticeable female physician in the field of obstetrics and gynaecology, who lived during, the 2nd century CE, was *Cleopatra*. She wrote extensively about pregnancy, and women's diseases; her texts were enlarged upon by the Greeks and Romans and used by doctors and midwives until the sixteenth century. ¹⁵⁰³

The Greek physician Herodotus claimed that Egyptian medicine was characterised by idiosyncrasy:

"The practice of medicine is divided in Egypt as follows: each doctor is a specialist in one disease, and not more [...]. Some are doctors of the eye, others of the head, others of the teeth, other of the stomach, and others of hidden diseases." ¹⁵⁰⁴

Medical practice in ancient Egypt became increasingly specialised, and each doctor was an expert in treating a certain disease. *Sekhetnankh* (V Dyn.) was called the "nose doctor" and "doctor of nasal

¹⁴⁹⁸ Crislip 2005a: 14.

¹⁴⁹⁹ Sullivan 1995: 142. Sir William Osler described Imhotep as "the first figure of a physician to stand out clearly from the mists of antiquity" Nunn 1996: 122.

¹⁵⁰⁰ Papyrus Leyden 1. 371.

¹⁵⁰¹ Nunn 1996: 118.

¹⁵⁰² Nunn 1996: 124-125.

¹⁵⁰³ Romm 2010: 9.

¹⁵⁰⁴ Jouanna 2012: 10

passage". A limestone relief of Iry (IV Dyn.), a royal physician, described him as a "guardian of the royal bowel movement". Moreover, some deities were connected with particular medical problems: "Duaw (eye diseases); Taurt and Hathor (childbirth and its complications); Sekhmet (pestilence); Horus (snakebites, toxicology). Deities were also connected with particular organs like Isis (liver); Nephthys (lungs) and Neith (stomach)". ¹⁵⁰⁵ In addition, some physicians allied themselves with particular gods or goddesses, according to their specialisation. ¹⁵⁰⁶

The Greek term ιατρός, ιωτροσ¹⁵⁰⁷ usually referred to the professional healers. Some Coptic texts contain references to the physician's profession, but what survives in the documents, however, does not correspond to the more detailed descriptions in ancient Egyptian medical literature. The public physician practiced his work in a private place, which could have been attached to his house as a clinic or in the patient's house.

In the Post-Pharaonic period, no explicit hierarchy of doctors existed such as it did with the ancient Egyptians; nevertheless, there were some specialists physicians. From the first to the fifth century CE, public physicians also doubled as forensic medical examiners. In legal procedures, a public physician seemed to be confined to determining the reason of death, whether it was of unnatural or natural causes. The term caein "practicing physician" goes back to the ancient Egyptian "swnw", and occasionally we find a second field of activity such as caein 21 μαρκας "doctor and chiropractor" or caein negtoop "doctor of the horses". The term caein γι μαρκας "doctor and chiropractor" or caein negtoop "doctor of the horses".

In addition, there were monastic medical practitioners who practiced a unique dualism, combining the professions of medicine and religion. The duties assigned to them covered medical treatment, prayers, herbal remedies, and religious rituals to treat sick people. From the 7th-8th cent. CE in Western Thebes, some persons designated as 12 Tpoc also carried ecclesiastical titles, for instance, John bore the titles of 12 Tpoc and Monoxoc; and Phoibammon, carried the title of deacon and 12 Tpoc, as identified in a commemorative inscription at the Theban monastery with the title: "healing specialists among the saints Phoibammon". Moreover, there were C22 NCHINI "teaching doctors" or "masters", 1513 "medical practitioners", and the highest position in the medical hierarchy was the "senior physician".

¹⁵⁰⁵ Sullivan 1995: 142.

¹⁵⁰⁶ Willerson1996: 194.

¹⁵⁰⁷ It also appeared as 212 Tpoc. Ahmed 2010: 125.

¹⁵⁰⁸ снімі мнажеї "the dentists"; снімі мтєвнором "veterinary" (Abdelnoor 1999: 363; Ahmed 2010: 198); снімі мвах "ophthalmologist" (Crum 1939: 31b), as well as "речморкас bone-setter, mugabir". Abdelnoor 1999: 91; Crum 1939: 119b.

¹⁵⁰⁹ Crislip 2005a: 125

¹⁵¹⁰ Kolta 2004: 152.

¹⁵¹¹ Crum 1939: 342b.

¹⁵¹² Richter 2016a: 37.

¹⁵¹³ Crum 1939: 383b.

Doctors of both sexes significantly participated in the medical professions.¹⁵¹⁴ Female doctors pursued medical careers alongside male physicians. In Shenoute's monastery, ¹⁵¹⁵there is a mention of a female doctor who conducted her work in the monastic communities:

инесгіме исаєїн граї гинеісунагфіг ноуобід) нім єїре он кататеїге. есфанффіє де итеоусаєїн граї игнтен єрпагре єгенмелос бумокг игоїне граї гинеїтопос, н итоц итеоуноб нанагки ффіє, итесаєїн граї игнтен в ϕ к єпма єтмиау 1516

May no female physicians in these communities (monastery) at any time again act according to this manner. But if a physician among us treats painful of cerain persons in these places, or if a dire necessity occurs, physicians among them go to that place. 1517

Another text contains a reference to the existence of a female doctor, where the head of a family advises a female doctor, not to attend to a disabled girl where there is no hope of recovery: TCAIN GEI GROYN. 1518

The Chassinat papyrus proves the existence of an experienced generation of physicians within one family and indicates the form of interaction that took place between physician and patient. In addition, the document indicates the extent to which medical services were provided to patients on many occasions, noting that it was a paid service, and that doctors charged his money for their service. Accordingly, we can suppose that there was a private place or hospital where these services were provided. It is clear from some recipes that the father was a physician and he intended to document the recipes to pass onto his son. This is apparent in the father's advice to his son. These instructions announce that the father wrote these experienced prescriptions to record it for his son; this is clear from some recipes which contain a direct instruction to his son, such as recipe

Ch 109

(224) оүҳүрөн енаноүч калшс едшие иім ет \bar{e} и \bar{n} вал аітокімаzе \bar{n} моч аібuйме \bar{u} и оүөн (225) ечт \bar{e} тши ероч наноүч педінре екuансинит \bar{u} ч

¹⁵¹⁴ Kolta 1991: 1582b.

¹⁵¹⁵ Male and female communities were both founded by Pachomius and Basil, but female doctors are not explicitly listed in the origins of these communities. Crislip 2005a: 150.

¹⁵¹⁶ Leipoldt & Crum 1913: IV, 161, l. 6.

¹⁵¹⁷ Author's own translation.

¹⁵¹⁸ Kolta 2004: 152.

наноүц пара пецфі й[гаг] (226) йсоп екфансйнтц текхонтц оүхрима пе екф йноц гі пектаніон (227) кадміас өоүөіє с†меос узкрза өфнөр еракі хах йзөф оүфі ката йоуа йгнтоү (228) өнөөү калфс фхффоуф оүфі ката йоуа йгнтоү (228) өнөөү калфс фхффоуф стооу етемхаө ті пұлх йзөф 1519 ехфоу өнөөү калфс (229) фантекнау епхах йзөф ацратоуфий евол ецтфг йн ніпагре тсоц мооу йнво \equiv (230) \equiv 1 1 1 2 2 3 3 3 3 3 4 3 3 4 3 3 4 3 4 3 4 $^$

(224) A very good powder for all eye diseases. I examined it and I found it is genuine, (225) it has no equal in efficiency, my son. If you prepare it, (you will see) it is precious many times beyond its weight; (226) if you prepare it, you will find that it is a wealth to keep in your treasure (227) cadmia, oxide zinc, antimony, sublimed yellow sulfur, mercury, the same amount of each. (228) Crush them well; shake them; bring them back in a mortar; add mercury; crush well (229) until you see the mercury disappear, mix with the other drugs. Sprinkle with lemon acid pulp juice (230) for twenty-one days, mixing daily, until the material hardens and dries up. (231) Add a little musk and a little camphor; crush as much as it should; put (232) in a glass vessel. Keep/cover it up for you as a good treasure. For me it is more valuable than all treasures (233) of the earth. Use it for you, for the people of your house, for your relatives, and for your neighbors. Use it morning (234) and evening for seven days per month or (for) three days per month. It is finished. 1520

Ch 114, Ch 157, Ch 212 and Ch 226 present exhortations from a father to his son indicating to only apply the remedy to the patient after receiving his payment: Ντῖρ-†παρρε ερωμε ωλητεκχι νπίεκβεκε "Do not

 $^{^{1519}}$ π፯ኢ χ ቫኒፀփ, μοογ ቫፂልፕ "silver water, mercury".

¹⁵²⁰ Author's own translation.

give the remedy to man until you receive your wage" (Ch 114); ΦΡ πετσοούν σε νανού πίπαρρε εματε ді йпеквеке "God who knows how this remedy is very good! Take your wage" (Ch 157); and ді пвеке ν̄φορ̄π "Take the wage firstly" (Ch 212). Moreover, Ch 49 encompasses advice from the father to his son to preserve the recipe, which proves that this person was an experienced person who had everyday interactions with patients: coγω nak πawhpe "know (it) for you, my son!".

Within Ch 117 and Ch 122, the author of the recipes explains that the method that he followed in recording recipes was also inherited from his father as well oynoo ทีกลอpe อเจียง พื้อหารี ลทok ห์ที่ กลอเพา "A great remedy that I work on it with my father" (Ch 117); and ογνος νκολλίον είρεωβ νέητζ ανόκ μν πασωτ "A great collyrium that I work on it with my father" (Ch 122).

Some documents that belonged to monasteries were issued without a specific author name but were, however, mentioned under the general idiom of хоме иссеи (O. Louvre 1315, vo, 1. 36) 1521 ог хооме NIATPOC meaning "physician books". These books presumably refer to the medical texts written by a practicing physician. Even the non-medical texts refer to the books of physicians, such as (O.Crum 253)¹⁵²² a letter from a man named Athanasius 1523 to his reverend father, Athanasius from Medinet Habu, by requesting him to send the "the book of physician":

O.Crum 253

Ρ ΤΑΓΠΑΖΕ ΜΠΑΕΙΟΥ ΑΘΝΑCΙΟΣ ΕΙΠΔΗ ΑΙΧΟΟΥ ΝΑΚ ΡΑΠΧΟΙΜΕ ΝΙΑΤΡΟΣ АЮУШЩЕЕ ЕРНС ИЗАЗ ИСОП ИПЕПРООУЩ МПМА КААТ ЕЕІ ЕРНС АЮУШЩ ЕЕІ ΕΡΗΟ ΑΝΑΣΙΕ ΘΟΙλΎ ΜΜΟΙ ΤΝΟΎ ΡΤΠΑΡΑΚΛΎΟΙΟ ΝΓΤΝΝΟΟΎ ΝΑΙ ΚΑΝ ΠΑΜΑΤΟΙ кан игтаач игарши ичхооүч наг итоотч мпечсон: снау игооү ειωλημοώτη † ηγίοομας μείωτ

Greetings to my father Athanasius as I spoke to you regarding the book of physician and often desired to go south (to fetch it but) the care of the place (= monastery) has not allowed me to do so and the roads prevented me; so now do the kindness to send it me, either by the soldier or by giving it to Aaron, who will send it me by his brother. When I have studied it two days, I will send it (back), my father. 1524

¹⁵²¹ Coquin 1975: 212.

¹⁵²² Ostracon, dates back to 500-799? AD (Trismegistos), from Medinet Habu. Crum 1902: (transcription and translation).

¹⁵²³ Richter mentions that this man is calling himself aganacioc πειεχ. "Athanasios this humble (priest)". Richter 2018: 154.

¹⁵²⁴ Translation: Crum 1902: 63, with slight modifications.

9.2 NURSES

The second type of medical professions that appeared in Coptic documents was the 'nurse'. The term that used for this profession according to Shenoute was Netalekonei energodie "Those who serve the sick". This term reflects the duties and service that were carried out by nurses. In the fourth-century monasticism, nursing appeared as profession with specific duties different from both physicians and lay caregivers. The nursing profession is a characteristic feature in Shenoute's monasteries, and is literary called Netalekonei energodie "The servers of the sick". This title indicates that the nurses were servants as well, whose role was to serve the sick people under the supervision of elders in the monastery. The coenobitic monasteries owned considerable nursing staff for the sick. Shenoute's writings refer to the job of a nurse as being very hard, and they had to deal even with distasteful diseased cases. Those who rejected such hard tasks were denounced: "If anyone goes in to a sick man or woman ...saying, ... 'We cannot suffer the stench,' they shall be condemned." 1527

There is no exact information on the number of nurses in an infirmary; the numbers vary according to the total space of each monastic institution. The spacious areas such as the White Monastery, which consisted of four thousand monastics, must have had a large number of nurses working there. The duties of nurses included performing hygienic matters such as bathing patients, offering them clean beds and changing chamber bedpans; providing them with healthy foods; as well as comforting the monastic sick with regular medical attention:¹⁵²⁸

The monastic rules of Pachomius provide a perspective on nursing responsibilities, including those relating to patient attitudes:

- "1. The patient should repose and rest on the bed.
- 2. The bathing and anointing the patient with oil not allowed to any person without clear permission.

¹⁵²⁵ Canon.5, XS, IV. 56:16 "But if sick people among us, whether male or female, they need to eat in the place of the sick people and they ask for a small amount of oil for their small salted fish or salt or greens or any other dish of this sort, they shall give it to them in the limited measure, neither pouring it out beyond the established measure, nor leaving them lacking. Again, anything that they shall cook for those who are sick, either greens or gruel or any other thing at all which is cooked in that place of the sick, they shall not pour much oil for them beyond the limited measure nor shall they leave them lacking. If there is a medical emergency and someone asks for a little wine in his sickness, whether it be a man, a woman, a boy or a girl, in any case if they ask for a little wine in their sickness they shall give it to them- if they are truly sick and in need of it-but also they shall keep watch over them so that they do not deceive them and drink too much. And those who serve in that place shall do what is fitting in the measure which the elder shall command them to do for each one according to each type of sickness". leipoldt & Crum 1913: IV, 55–56.

¹⁵²⁶ Crislip 2005a: 15–16.

¹⁵²⁷ Crislip 2006: 89.

¹⁵²⁸ Crislip 2005a: 16–17.

3. In case of any monastic person suffered an injury, the hospital manager had to go to the place of the community and bring what was necessary". 1529

9.3 ELDERS AND STEWARDS

Coenobitic monasteries in the fourth century had an additional profession associated with caregivers in the health care system; this was a position of a professional who oversaw the work of nurses. This functional role was accomplished by stewards, housemasters and elders. The steward or οἰαακός "housemasters" (oikiakos, praepositus, rmnêi) played an essential role in the health care system in the rules of Pachomian. The elders in Shenoute's monastery took charge of providing the medical tools, suitable clothing, and exceptional food. In addition, the elders had the right to define the type and amount of food for each patient according to their type of illness: "When a brother has been injured and is not bedridden but is up and around, if he needs a garment or a bit of oil, his housemaster (praepositus domus) shall go to the stewards' place to get them until he is well again; then he shall return them to their place" (Pach., Praecepta 105, tr Veilleux); "And if he needs a mantel or a tunic or anything else by way of covering or food, let the master (Praepositus) himself get these from the ministers and give them to the sick brother" (Praecepta 42, tr. Veilleux); "If some sickness is alleged, the housemaster (praepositus domus) shall proceed to the ministers of the sick (a ministris) and receive from them whatever is necessary" (Praecepta 40, tr. Veilleux).

The elders were the only ones who could determine the seriousness of a monastic's illness and were responsible for giving him the order to go to the infirmary. They were also responsible for determining the type and quantity of food for sick monks. ¹⁵³²

9.4 MEDICAL EDUCATION

Medicine was the only science in ancient Egypt that was associated with scientific methodology and taught with scientific curricula. The "Houses of Life" functioned as hospitals; they were close to the temples. Where doctors received their training and primary medical science. The strongest evidence for the suggestion that the doctors obtained their training in a per ankh "House of life" existes in the rear plinth of the statue of Wedja-hor-resnet:

¹⁵²⁹ Kolta 1991: 1582b.

¹⁵³⁰ Crislip 2005a: 17

¹⁵³¹ Crislip 2005a: 153 (Note no. 53).

¹⁵³² Crislip 2005a: 17.

"His Majesty King Darius commanded me to return to Egypt ... in order to restore the depatement[s] of the House[s] of life [dealing with medicine] after [they had fallen] into decay ... This his majesty because he knew the virtue of his art to revive all that are sick ..." 1533

Medicine had a direct connection with people's lives more than any science, so the Egyptians choose their native language 'Coptic' to write medical documents. Medicine was an exception because almost all Coptic scientific writings were not written in the Coptic language in the periods before the tenth century. Richter 1535 mentions that "The most practical sorts of medical texts, prescriptions, are attested in Coptic record centuries before that time, as early as the fourth and fifth centuries".

Because of the lack of academic resources from Coptic medical literature, the various techniques for learning and practicing medicine in the post-pharaonic Egypt are not sufficiently clear. The medical texts that are available to us presume that there were two possibilities of medical education methods: 'educational' or 'non-educational'. 1536 The first 'non-educational' method relates to traditional and local skills. It is likely that most Coptic medical writings were orally transmitted between generations: from father or mother to son or daughter. A Coptic document from Edfu (649 CE), which is a receipt of a pepper consignment conveyance, represents an organisation called tkiono(thc) nnriatpoc "guild of the physician". This guild was represented by a person named "Dios, the head of the guilt of the physicians." Dios must not have been able to write, since he asked another doctor 'Djoker' to write for him as he declared: амок докр пратрос ачеты имог агсы рароч де мачног йсраг "I Djoker, the doctor, he asked me, and I wrote for him because he cannot write". This text tells us that being a doctor did not need to have any academic studies or to hold an academic degree. Hence, any official practitioners or professional healers could gain the title of 'Physician'. Richter declares that: "the same fact has been observed by Shlomo Goitein in the Cairo Geniza documents from Fatimid times. He writes: As to the study of medicine, we must beware of applying modern notions to medieval conditions, particularly in the Islamic world with its individualistic approach to higher studies. In order to work independently as a physician, one needed a license granted not by a prominent physician, who was authorized by the government, but normally, it seems, by the chief of the market police."

Secondly, the 'educational' method, the prospect of acquiring medical acknowledgment was the 'academic' part that included a curriculum of written texts not in Coptic alone but also in Greek and

¹⁵³³ Nunn 2005: 131.

¹⁵³⁴ Richter 2009: 24.

¹⁵³⁵ Richter 2016a: 42.

¹⁵³⁶ Richter 2016:a 42.

¹⁵³⁷ Richter 2016a: 42–43.

Arabic. ¹⁵³⁸ In terms of the meaning of school of medicine; it might have been something analogous to those medical schools of Greece and Alexandria. ¹⁵³⁹ As it is written in Chassinat papyrus mentioned recipe Ch 65: ογπαρρε... παικοπτά εqchε επ παιωναιών "A remedy that we found written in the ancient books". Perhaps this sentence refers to the ancient medical books of Galen and Hippocrates.

This formal way of teaching medicine spanned to the teaching of late antiquity, which depended on involving classroom education and attending lectures of a professor of medicine along with practicing the medical procedures.¹⁵⁴⁰

9.5 PERSONS MENTIONED IN MEDICAL TEXTS

All known Coptic medical texts were written between the third and eleventh century CE. The Greek resources and the Arabic documents, which overlap with the Coptic period, contain several Coptic medical names. We are dependent on Coptic-medical fragments to know whether the copies of Coptic medicine are given by physicians, or as authors of works. The existing Coptic medical resources present modest information concerning their authors and doctors. Some of the medical resources mentioned specific personal names, and these names were sometimes associated with certain drugs or mentioned by themselves. Stelae and inscriptions from the sixth and seventh cent. CE, and some medical texts explicitly stated the names of the Coptic physicians, as follows.

The Monastery of Apa Jeremias in Saqqara presents an inscription of a frieze with a monumental inscription 1542 dated to approximately the 7th cent. CE, 1543 which mentions the physician Victor and his son Shoi: Δοζα ΘΎ ις χς νικα γας βικτωρ γαιέν μπο φοι πεφωρηρέ αμην "Glory to God, Jesus Christ. The master Viktor, the doctor and his son Shoi, Amen." Here, the author uses the Coptic term γαιέν, πεαείν for "physician", instead of the Greek term ιατρος.

From Arment 1544 two inscriptions contain different names of Coptic physicians. 1545 The first inscription is a sand stone dated to approximately the 7th cent. CE, which mentions πλημις ιλτρος "Plenis the physician" (figure 18). The name of Plenis was common – as there was a monk called Plenis λπλ πλημις πηθηλίας ετογλαβ χοιλκ κε "Apa Plenis, the monk, (died) on the 25. Khoiak". 1546 The second inscription

¹⁵³⁸ Richter 2016a: 42-43.

¹⁵³⁹ Andorlini 2007: 385.

¹⁵⁴⁰ Andorlini 2007: 387.

¹⁵⁴¹ Kolta 1983: 190.

¹⁵⁴² Quibell 1912: pl. 43, no. 3

¹⁵⁴³ Schulze 2005: 61.

¹⁵⁴⁴Arment, Greek 'Hermonthis' Coptic 'Ermont', on the western bank of the Nile south Thebes, about 15 miles south of Thebes.

¹⁵⁴⁵ Kolta 1984: 190.

¹⁵⁴⁶ Kolta 1984:190.

is a sandstone stele with a triangular truss, dating back to the sixth or seventh cent. CE, where the name of the physician Pathermuthis is preserved: πλοερμογοις ιλτρος "Pathermuthis, the physician." (figure 19).

Originating in Edfu, Upper Egypt, there is a unique document that dates back to about the seventh or eighth cent. CE. concerning the pepper monopoly, which refers to the existence of a Coptic medical professional organisation: TKOINO(T) ÑNRIATPOC "The guild of doctors". In addition, the text announces the names of two physicians, one of whom is designated as ATH "chief/ head". Thus, this text reports on the head of doctors, the doctor Dios, and the doctor Djoker, who wrote the text:

KSB I 242, ll. 106-115

The association/ community/guild of physicians, by the hand of Dios, the head: he declares, I have received by the Lord Liberius, the most glorious pagarchos, 6 pounds of pepper. I am ready to distribute them among all the physicians, (and I declare) that I do not impose anything on the poor and that we (sic) its price, which is 1 Solidus. I, Djoker, the doctor, he asked me to (and) I wrote for him, for he cannot write. 1549

The text proclaims that Dios was not perfect in terms of writing; therefore, he asked doctor Djoker to write for him: ανοκ χωκρ πριατρος αφετει μμοι αιςαι χε μαφνοι ντοςαι "I Djoker, the physician, he asked me, and I wrote for him, because he cannot write". Buchheim 1550 notes that: "in contrast to the highly educated medical profession in ancient Egypt, the doctors had an illiterate board member in the Coptic period".

The fact that the physicians obtained little respect at that time becomes evident in another passage from the protocol of Edfu, which shows that in contrast to the physicians, who the Egyptians were so proud of, the Coptic physicians were placed in the group of craftsmen: stonemasons, potters, masons, boatmen,

¹⁵⁴⁹ Author's own translation.

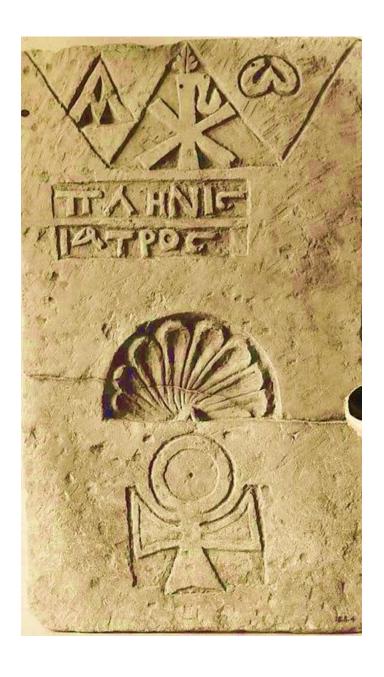
 $^{^{1547}}$ гомочогы, for гомологы.

¹⁵⁴⁸ Crum 1925.

¹⁵⁵⁰ Buchheim 1960: 269.

shoemakers, oil traders, patch workers, stickers and smith (professions that are mentioned in the Edfu papyrus). 1551 These passages reflect a contrary dignity of the profession of the physician.

Another ostracon O.Crum 296,1552 dating back to the seventh or eighth cent. CE, mentions the physician's name John: ανοκ ιωγαννης πειατρ[ο]ς αγω πμονοχι "I am John, the Physician, and the monk".



¹⁵⁵¹ Crum 1925: 103–111. ¹⁵⁵² Crum 1902: 53.

Figure 18. Sandstone brick from Erment (After: Kolta 1983: 191)



Figure 19. Sandstone stele from Erment (?) (After: Kolta 1983: 192)

Concerning the papyri examples, the Chassinat papyrus, unlike the other medical texts, is the only text that mentions some doctors' names. The author of the papyrus, who, like his father, was a physician and whose name is unfortunately unknown, passed on the recipes to his son in the event that he would also take the profession of a physician: 1553

Ch 109

(224) A very good powder for all eye diseases. I examined it and I found it is genuine, (225) it has no equal in efficiency, my son!.

Ch 117

(248) oynog ühazpe eißzwb üzhte anok ün haeiwt

(248) A great remedy that I work on it with my father

The author of the Chassinat papyrus indicates that he sometimes depended on the previous experience of the predecessors, as he says in the recipe Ch 65: ογπαρρεñτανοντα εφαιρ εν παραμο πλαραμο πλαραμ

368

¹⁵⁵³ Till 1951a: 5.

With respect to the father's obligation to offer exhortation to his son, the following instructions provide us with some advices given from the father to the son: μπρ+παρρε ερωμε ωλητεκχι μπεκβέκε "Do not administer the remedy to man until you have received your wage" (Ch 114) and χι πβέκε μφορπ "Take your wage firstly" (Ch 212).

The Chassinat Papyrus did not announce the name of the author nor of his father's, although the papyrus mentions in various places others doctors' names. The first doctor's name appears in the recipe Ch 56: ογκολλιον ντε απα κγλιλος προφος ναρχηματρος "Collyrium of Apa Cyrillo, the wise/clever official physician". Here, the doctor's name appears in connection with the remedy, which could indicate that this remedy has been attributed to Apa Kyrillos or he himself had compiled it.

Another recipe (Ch 203) ends with Arabic script: ογα ντε νεαβαλ ρογοείν κάλως ... "Someone whose eye shine well ... 'arafahu Hennis'". The recipe ends with an Arabic script, it is an Arabic sentence consisting of the two words "'arafahu Hennis'", meaning "Hennis knew it". Hennis could indicate a name such as "Johannes", or it can be assumed that this person was he was a well-known physician or produced the remedy so he named it after himself, like the other remedies in the same papyrus.

In the Greek evidence, there are some names of Coptic doctors' names, as follows:

Aurelios Anouthis

Αὐρήλιος ἀνοῦθις Ἰωσηφίου διάκονος ἀπὸ Ἑρ(μοῦ πόλεως) καί ίατρὸς ἀξιωθεὶς ἔγραψα. 1555

"I, Aurelius Anouthis, son of Joseph, deacon of Hermoupolis, and

¹⁵⁵⁴ Crum 1929/30: 324.

¹⁵⁵⁵ P. Lond. III 1044, 38 (donation contract) dates back to the 6th cent. CE, Hermopolis Magna (?), Schulze 2005: 105.

worthy doctor, wrote this."1556

Aurelios Theodoros

† Αὐρήλιος Θεόδωρος Παύλου ίατρὸς μαρτυρῶ τῆ πράσει ἀκούσας παρά τῆς θεμένης, μαρτυρῶ δέ καί τῆ καταβολῆ τοῦ χρυσείου τῶν δύο νομισματιών τῆς τιμῆς. †¹⁵⁵⁷

"I, the physician Aurelius Theodoros, son of Paulus, testify to the purchase, after I have heard of the woman who caused it (the purchase). I also testify to the payment of the purchase price (actually., gold) worth two Nomismata". 1558

Christodoros

† .[] Χριστόδωρος ἰατρ(ός).¹⁵⁵⁹

"The Physician Christodoros"

Christodoros

Χριστοδώρω ἰατρῷ ὁμοὶ(ως). 1560

"Like the doctor Christodoros" 1561

Pheue

Φῆΰ Παπνουθίου ίατρὸς.... 1562

"The physician Pheue, son of Panouthios...."

¹⁵⁵⁶ The English translation is adapted from the German translation by Schulze. Schulze 2005: 105.

¹⁵⁵⁷ P.Mich. XIII 664, 43, Aphrodito. Schulze 2005: 105–6.

¹⁵⁵⁸ The English translation is adapted from the German translation by Schulze. Schulze 2005: 106.

¹⁵⁵⁹ P.Ant. III 193°, dates back to the 6th or 7th cent. CE, Antinoopolis. Schulze 2005: 106.

¹⁵⁶⁰ P.Ant. III 202, dates back to the 6th or 7th cent. CE, Antinoopolis, Schulze 2005: 106.

¹⁵⁶¹ The English translation is adapted from the German translation by Schulze. Schulze 2005: 106.

¹⁵⁶² P.Apollo. 58, 3, dates back to the 7th cent. CE, Apollonopolis Magna. Schulze 2005: 110.

Phlaouios Markos and Ioannes

† Φλ(αούιος) Μάρκος σὺν θεῳ ἰατρὸς, υίος τοῦ τῆς λογίας μνήμης

Ἰωάννου γενομέ(νου) ἀρχιιατροῦ, συναινῶ...¹⁵⁶³

"I, Phlaouios Markos. Doctor with God (with the help of God), son of the chief doctor Ioannes, to whom one has an eloquent memory, agree" 1564

Phiauios Phoibammon

Φλάυιος Φοιβάμων Εύπρείου ἀρχιιατρός. 1565

Phlauios Phoibamon, chief doctor son of Euprepios.

Anonymous

διά(κονος) k(αί) ίατρ(ὸς). 1566

Deacon and doctor

Anonymous

ἔσχαμεν ήμεις Οννοφριου υίος Μηνά Πμουει καί

Πανισκου υίὸς Πεκυσίου

άμφότεροι ἀπὸ κώμης Οννη τοῦ Ἡρακλεοπολείτου νομο(ῦ) παρὰ σο(ῦ)

Μηνᾶ υίός εἰατροῦ

άπὸ κωμης Λευκογιο(υ) τοῦ αὐτοῦ νομο(ῦ)...¹⁵⁶⁷

¹⁵⁶³ P. Oxy. 1126, 23, dates back to the 6th cent. CE, Oxyrhynchos. Schulze 2005: 111.

¹⁵⁶⁴ The English translation is adapted from the German translation by Schulze. Schulze 2005: 111.

¹⁵⁶⁵ P.Cair.Masp. II 67151, dates back to the 6th cent. CE, Antinoopolis. Schulze 2005: 112.

¹⁵⁶⁶ SPP VIII 789., 6th cent. CE. Schulze 2005: 112.

¹⁵⁶⁷ SPP VIII 68, dates back to the 7th cent. CE, Herakleopolis. Schulze 2005: 112.

"We both (i.e., the son of Men Pmouei (from Onnophrion), and the son of Pekysios from Paniskon/-os, which we come from the village of the district of Herakleopolis, are of thee, Menas, son of the doctor of the village of Leukogion/-os from the same district ...". 1568

Ioannes

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Κ(ύρι)ε, βοήθ(ησον) τόν δ[οῦλόν]
σου ἄπα Ἰωάν[νην]
ἀτρὸς καί πα[ντί]
[τῷ οἲκ]ῳ α[ὐτοῦ, ἀμήν]. 1569
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"Lord, help your servant, the priest and doctor Joanna and his whole house, Amen"

Ioseph

'Ιωσήφ.

Κ(ύρι)ε, βο(ήθ)ησον τὸν δουλόν σου Ἰωσήφ ίατρ(ὸς) καί Ἰωάννης ἀδελφὸς αὐτ[ου] καί παντί τῷ οικῷ αὐτοῦ καί ᾿Ανανίας, ἀμήν κ[α]ί τοῦ Αναστάσιος πβεσνητ Πληινε πνηυ. 1570

"Joseph. Lord, help thy servant the physician Joseph, and his brother

John, and all his house, and Ananias, Amen, And the blacksmith Anastasius and the rope
makers". 1571

The above-mentioned sources indicate that these medical texts lacked the names of their authors and physicians. Kolta¹⁵⁷² mentions that there are two hypotheses for the absence of doctors and author names from the medical texts: The first relates to the incomplete, unpreserved state of the source itself, whether

372

¹⁵⁶⁸ The English translation is adapted from the German translation by Schulze. Schulze 2005: 112.

¹⁵⁶⁹ From Thebes, dates back to the 5^{th} – 7^{th} cent. CE (?). Schulze 2005: 61.

¹⁵⁷⁰ Dates back between the 5th –7th cent. CE, Thebes. Schulze 2005: 63.

¹⁵⁷¹ The English translation is adapted from the Greek translation by Schulze. Schulze 2005: 63.

¹⁵⁷² Kolta 1984: 194.

papyrus or ostraca; hence, we can assume that the names of the authors have been lost over time. The second hypothesis is that it was an ancient Egyptian tradition, to not mention the name of the author in the text.

Walter Till¹⁵⁷³ argues that the absence of the author's names is because some recipes of the Coptic medical papyrus, Chassinat, were considered secret between a father and his son. Many drugs have been written with encrypted codes, thus to prevent any reader from using the recipes. Hence, his son was the only one who could use the book. It was rather a private collection created for the son's medical practice. This is clearly demonstrated by the fact that in most recipes one or two words usually the names of drugs were written in cipher, as the knowledge of this cipher was probably very uncommon. Consequently, during the Post-Pharaonic period, medicine was regarded as a guild for the Copts, which remained restricted to a particular family or group of persons of the same profession and passed on from generation; therefore, they avoided mentioning the name of the actual physician or the author. The only exception, which does not belong to the medical texts, is the Edfuer text, in which the names of the executive committee of a Coptic physician and his colleague are mentioned. ¹⁵⁷⁴

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¹⁵⁷³ Till 1951a: 5-6.

¹⁵⁷⁴ Kolta 1984: 194.

10. CONCLUSION

This study's findings regarding the practice of medicine and magic as a part of daily life in Coptic Egypt have been illuminating, thought-provoking and challenging to previous scholarship on this matter. As the main aim of this study was to investigate all methods of treatment used against diseases, I have divided this concluding section into two main parts: the medical healing methods and non-medical healing methods (magical and religious practices).

10.1 MEDICAL HEALING METHODS

This study is based on an inductive approach that uses all the available data related to medicine and pharmacology in the Coptic language from the period between the 4th and 11th cent. CE. This corpus of evidence has provided my study with important information on medicinal procedures despite the majority of data being fragmentary and, in some cases, incomplete. Further, exploring various texts and documents from others fields, rather than only medicine, provided us with even more information.

The most crucial result of this study is scientific medical practices were pervasive in every corner of Egypt and were not strictly limited to a specific region. My collection of sources includes medical texts originating in various areas of Egypt such as Saqqara, Al-Faiyūm, Wadi Sarga, Sohag, the Red Sea, and Thebes. The vast majority of texts came from Upper Egypt, Thebes, and date to between the 7th and 8th cent. CE. Sources from Asyut and Al-Faiyūm date between the 5th and 7th cent. CE; while the provenance of other sources containing medical prescriptions are unknown. Although the places of origin of some texts are not determined, monasteries have emerged as the most prominent location that has produced numerous medical texts. Specific monasteries have been identified: I identified two medical texts from the Monastery of Phoibammon; two from the Monastery of Epiphanius; three texts have been attributed to the White Monastery; one text to the Monastery of Apa Thomas at Deir el-Gandala (near Asyut); two texts to the Monastery of Jeremias, and one text to the St. Anthony's Monastery at the Red Sea. As a result of this survey, I have demonstrated in this study that monasteries, whose texts constitute almost a quarter of the available medical corpus, played an important role in providing basic medical sources. monasteries were considered the main place to provide medical care for various types of diseases, even those in the gynaecological or paediatrical branches. These medical texts prove the extent of services and facilities provided by monastic hospitals, which opened their doors to all people, not only to the monks or nuns.

One of the results of this study is the confirmation that the dates of the Coptic medical sources reach beyond the Arab conquest. Therefore, many of the medical recipes contain Arabic loanwords. Noticeably, the majority of Arabic words in medical texts were almost nouns, including the names of drugs, measurements and colours. In addition, Greek words were used intensively in the recipes' ingredients, measurements, and verbs. Most of the medical texts reveal the interaction between Arabic, Greek, and Coptic languages though their use of loanwords. Some of the Arabic loanwords were unknown to the editors (in already published texts), but as a native speaker, I could identify these words and their meanings, which enabled me to provide an updated version of certain texts and offer more details concerning the drugs and their properties. Moreover, researching more deeply in Arabic medical sources enabled me to find the properties of many drugs and understand the reason of the use of these specific drugs to treat particular diseases.

Another important finding of this study is the conviction that Coptic medical texts were the result of accurate practical procedures that were systematically composed by a number of experienced physicians. Some medical texts were very compact in size and were likely used as manuals for private doctors during home visits. Although, there is evidence of the doctor receiving the fees for the treatment given, there is, however, no indication of how much the doctor earned.

The most prominent result of this study is a confirmation that healing practices, whether medical or magical, were the prevailing type of solicitude in Late Antique Egypt. While the number of texts is small in comparison with those from ancient Egypt, there are, however, medical prescriptions for all body organs of the human body. An analysis of each prescription reveals information concerning the methods of treatment and techniques used against diseases and shows that the most common diseases appeared in specific periods or geographical areas. The medical recipes covered all body organs of the human body and every recipe began with the name of the disease followed by the recipes' ingredients and the instructions in preparing the medicament. A clear division to every symptom shows the experience of the physicians in that particular period, who diagnosed the diseases and prescribed the suitable medication. As a result of the survey in Chapter Five, I discovered that eye diseases (section 5.5) and skin diseases (section 5.14) were broadly treated. The medical texts mention an extensive variety of diseases affecting the eyes and the skin, and even the literary sources paid attention to these disorders.

There is no mention of contagion in the medical recipes but the literature of both lavra and coenobitic monasteries indicates the existence of the concept of isolating the sick and infirm through the statement that the sick should be exempt from prayer, common worship, or mass. According to Shenoute's writings, the monastery infirmary was spatially and physically isolated from the rest of the monastic live quarters. It's possible that the separation was made to protect the monks who were in good health from any illness, since the infirmary had its own storeroom, refectory, and kitchen (section 8.1).

10.2 PHARMACOPEIA

Examining the components preparation of the medical recipes and medications reveals the awareness of the pharmacodynamics of plants, mineral and animal substances. A number of ingredients, and even some remedies, were precisely named after their place of origin such as 20 cm ñapahikon/ apabikon "Arabia soda", nexe ñeo cog "Ethiopian tooth", xcozp actuzeni "Persian cabbage", and ογκολλιον ñ πepci "Persian collyrium". This suggests the influence of both the Greek and Arabic pharmacy on Coptic medicine. This influence is also demonstrated through the use of either Greek or Arabic units of measurement in various Coptic medical recipes (Tables 3, 4).

Within the recipes, there are many forms of remedy administration that have been mentioned. Every final remedy consisted of a combination of various substances delivered in accurate measurements. I have divided the remedies into four main categories: orally ingested as a syrup or pill; internally applied as a pessary or paste; externally applied as a powder, ointment or poultice; and applied through fumigation, inhalation or smoking. As a result of this research, I have discovered that the external treatment constituted the largest proportion of methods of application while internal and oral treatment ranked second.

Analysing the medical recipes and the types of remedies, I have found that each form of remedy dedicated itself to a specific disease. Hence, oral remedies were mainly used against fever, vomiting, painful breasts, penis disorders and a migraine; external remedies were the preferred type of treatment against eye diseases, intestinal worms, blood-stilling, rheumatism, skin diseases, stomach or toothache. Internal remedies were mainly used to treat anal diseases and problems of the intestines; and inhalation methods were specially prescribed to treat rheumatism or earache. Finally, it appears that certain drugs were particularly popular as a universal remedy against all diseases due to their pain-relieving properties, for example, myrrh, aloes, acacia or opium.

10.3 MAGICAL HEALING METHODS

Another way to treat diseases was through magic. The use of magic had a major influence on medicine along with the medical procedures. A clear differentiation between the purely medical texts and those of magical orientation can be observed, as the magical texts distinctly included magical characters, names, and signs; and were supported by religious sentences, prayers, and invocations to Jesus Christ, alongside "non-canonical" texts.

The survey of magico-medical texts illustrates the relationship between religion and magic in the domain of medicine. The present study, therefore, reveals the function of religion among the magical spells used in the texts surveyed in this study. Religious influence appears in invoking, e.g., "Jesus in the name of your powers, and your names"; "Jesus the Lord", and citing quotations cited from the Bible, mainly from the Psalms, and the Gospels (section 6.2).

The verses of Scripture quoted in the magical texts for healing purposes were consistent with the type of disease treated; thus, certain parts of the Bible were employed in delivering magico-medical treatments.

Healing spells are believed to be a continuation of Egyptian healing traditions during the Post-pharaonic period and therefore, provide detailed knowledge on diseases common at that point in time. By investigating all magico-medical evidence, this study shows that the magic was the preferred method of treatment for certain health issues such as bleeding, breast milk problems to induce lactation, chills, fever, fire diseases, jaundice, limb diseases, mental disorders, paediatrics-related issues, demonic possession, pregnancy, skin problems, swellings and spleen disorders. Some of these diseases were medically treated; however, health issues such as mental disorders and demonic possessions were treated only with magic (section 6.6.12).

One of the more significant findings to emerge from this study is the confirmation that the magico-medical texts reveal the interaction between Coptic and Greek cultures and language; a fact that is already ensured by the number of Greek loanwords used and the Greek domination in many spells as the main language in invoking God's power. Moreover, many texts began with a brief Coptic instruction in how to make an amulet for specific diseases; however, instructions and spells composed in Greek as in (P.Köln 425), and (P.Mich. MS 136, Il. 10–20), which contain a prescription to treat gout are composed in Greek. Furthermore, some texts borrowed Greek quotations such as the citation of a Homeric verse (Iliad 3), which was written in Greek in a recipe for treating chills, and snake sight, as a part of a Coptic magico-medical text. The utilisation of such citations is also found also in Galen's experience in treating stings, thus revealing the interaction between the Coptic and Greek recipes. At the same time, this interaction between language and cultures in the medical domain is demonstrated in medical texts, since the same Homeric verse is utilised in a medical recipe for a swelling, or wound; and the figures of snakes, which appear to a

sick person (I.Saqqara 103), from the monastery of Apa Jeremias at Saqqara. Also, the usual epilogues of the amulets are the Greek exclamation Taxh Taxh "quickly, quickly". The mixture of languages in the magico-medical texts reveal the bridging between language and culture, and express the importance and meanings of the phrases used by the magician or practitioner.

In closing, the various medical texts were a classification of a highly scientific system and a well-educated society. The writer or reader was familiar with the Greek and Arabic terms and incorporated them well into the Coptic texts, forming a special character for the medical sciences of that time. Despite the small number of these texts discovered, they provided a clear picture of treatment methods and the most important diseases that were prevalent at that time. Of course, it was important to study other non-medical texts to get a complete picture of the medical system and discover the religious and magical elements affecting the medical side and the reasons for resorting to it.

Appendix A

Inventory of Coptic medical texts

No.	Checklist siglum	Collection, inv.	Provenance	Date	Material	Dimensions
1	BKU I 27	Berlin, Papcoll., inv. P4984	Thebes	7th-8th	Ostracon	5.5 x 10.5 cm
2	BKU I 28	Berlin, Papcoll., inv. 880	Thebes	7th-8th	Ostracon	6.5 x 5 cm
3	O.Brit.Mus.Copt. I 49	London, BM inv. 27422	Thebes	7th-8th	Ostracon	21.90 x 14.80 cm
4	O.Brit.Mus.Copt. II 37	London, BM inv. 50216	Deir al-Bahari	7th-8th	Ostracon	10.50 x 13.50 cm
5	O.Crum 487	London, EEF 151	Deir al-Bahari	7th-8th	Ostracon	
6	O.Mon.Epiph. 574	New York, MMA inv. 12.180.79	Monastery of Epiphanius	7th-8th	Ostracon	
7	O.Mon.Epiph. 575	Kairo, Äg. Mus., inv. 44674.130	Monastery of Epiphanius	7th-8th	Ostracon	
8	O.Bachit 1170+1172		Deir el-Bachit (Dra' Abu el- Naga) Thebes		Ostracon	11,8 x 9,3
9	BM 527 (P.Lond.Copt. I 527)	Or.4920(3)	Al-Faiyūm	10th– 11th	paper	7 x 5.5 cm
10	BKU III 396	Berlin, PapSmlg. Inv.22164	Unknown	4th–5th	Papyrus	5.5 x 13 cm

11	P.Heid. G 698c	Heidelberg, Pap Smlg. inv. G 698c	Unknown	4th–5th	Papyrus	2.9 x 5.8 cm
12	P.TT157- 470	TT157, Fj. 470	Dra' Abu el-Naga (Thebes)	4th–5th	Papyrus	10.8 x 8.2 cm
13	P.Mich. 593a	Ann Arbor, University of Michigan, inv. 593a	Unknown	5th-6th or later	Papyrus	7.25 x 9 cm
14	P.Ryl.Copt. 109	Manchester, John Rylands Library	Unknown	6th-7th	Papyrus	5 x 10 cm
15	SBKopt. I 006	Wien, ÖNB, Pap Smlg. inv. K 5595	Unknown	7th	Papyrus	28 x 8.5 cm
16	SBKopt. I 003	Vienna, ÖNB, PapSmlg. inv. K 5504	Unknown	6th-7th	Papyrus	17 x 7.5 cm
17	P.KölnÄgypt. 12	Köln, PapSmlg. inv. 5948	Al-Faiyūm	7th	Papyrus	9 x 8.8 cm
18	P.Sarga 20	London, BL?	Wadi Sarga	7th-8th	Papyrus	6.5 x 8.5 cm
19	SBKopt. I 004	Wien, ÖNB, Pap Smlg. inv. K 5506	Unknown	8th	Papyrus	16 x 12 cm
20	P.YCtBR inv.3353 ¹⁵⁷⁵	New Haven, Beinecke Library P.YCtBR 3553	Unknown	7th-8th	Papyrus	6.7 x 13.8 cm

1575 Letter.

21	SBKopt. II 1043	Berlin, PapSmlg. inv.3262	Al-Faiyūm, (propably Arsinoe) ¹⁵⁷⁶	7th-8th	Papyrus	9.5x 8 cm
22	BKU III 329A	Berlin PapSmlg. inv. 22061	Unknown	7th-8th?	Papyrus	19 x 16 cm
23	BKU III 393	Berlin Pap Smlg. inv. 22190	Unknown	7th-8th?	Papyrus	14.5 x 16.5
24	Ch	Cairo, IFAO	Naga al- Meshaikh	9th–10th	Papyrus	248 x 27 cm
25	P.Louvre AF 12530	Paris, Louvre AF 12530	Sohag?	9th–10th	Papyrus	90 x 9 cm
26	P.Mich. MS 136, pag.2–14	Ann Arbor, Michigan MS 136	Unknown	5th-6th or later	Parchment	4.125 x 4.875 cm
27	P.Mich. 593b, pag. 167–168	University of Michigan, inv. 593b	Unknown	6th	Parchment	7 X 11 cm
28	P.Carlsberg 500, Pag.103- 106, 111- 114, 135- 136	Copenhagen, Carlsberg coll., inv. 500	Saqqara	6th	Parchment	9-9.50 x 8-8.50 cm
29	Cod.Med.Copt., pag. 214–215	Paris BN 132,5, fol. 1	White Monastery	9th-10th	Parchment	15 x 12 cm

¹⁵⁷⁶ Hastizka 2004: 135.

30	Cod.Med.Copt., pag. 241–244	Napoli BN IB.14.06-07	White Monastery	9th-10th	Parchment	
31	SBKopt. I 001	Leuven Univ. Libr. frag. 114	Unknown	10th	Parchment	11.51-12 x 12 cm
32	P.Ryl.Copt. 108 Ro	Manchester, John Rylands Library	White Monastery ¹⁵⁷⁷	10th– 11th	Parchment	6.5 x 8.5 cm
33	BKU I 25	Berlin, Papcoll. inv. 8109	Unknown		Parchment	18 x 11 cm
34	CAT. NO. 137 (98:Ms4)		Monastery of St. Antony at the Red Sea	9th–10th	Parchment	12.4 x 11.5 cm
35	SBKopt. I 002			10th– 11th	Paper	
36	SBKopt. I 005			10 th -11th	Paper	
37	P.Ryl.Copt. 104	Manchester, John Rylands Library		11th	Paper	19 x 14 cm
38	P.Ryl.Copt. 106	Manchester, John Rylands Library		11th	Paper	25 x 17 cm
39	BKU I 26	Berlin, PapSmlg. inv. 8116	Al-Faiyūm	11th	Paper	28 x 29 cm; 14 x 18 cm

 $^{^{1577}\} Trismegistos.\ [https://www.trismegistos.org/magic/detail.php?tm=111286],\ (last\ accessed:\ 02.08.2019).$

40	P.Sarga 21	 Monastery of Apa Thomas Wadi Sarga	7th-8th	dipinto	
41	I.Saqqara 103	 Monastery of Jeremias		dipinto	

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