

THE
PAPYRUS EBERS

THE GREATEST
EGYPTIAN MEDICAL DOCUMENT

TRANSLATED BY

B. EBBELL

LATE COUNTY MEDICAL OFFICER



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DEDICATED TO THE MEMORY OF
IMHOTEP,
THE GREAT EGYPTIAN
PHYSICIAN

Contents of Papyrus Ebers

- 1,1 — 2,6 Recitals before medical treatment, to increase the virtue of the remedy.
- 2,7 — 55,20 Internal medical diseases.
- 55,20 — 64,5 Diseases of the eye.
- 64,5 — 76,19 Diseases of the skin (with an appendix of sundries).
- 76,19 — 85,16 Diseases of the extremities.
- 85,16 — 93,5 Miscellanea (especially diseases of the head, e.g. of the tongue, teeth, nose and ears, and cosmetics).
- 93,6 — 98,21 Diseases of women (and matters concerning housekeeping).
- 99,1 — 103,18 Information of an anatomical, physiological and pathological nature, and explanations of words.
- 103,19 — 110,9 Surgical diseases.

Contents

Foreword	9
Introduction	11
The Papyrus Ebers:	
Recitals before medical treatment	29
Internal medical diseases	30
Diseases of the eye	68
Diseases of the skin	76
Diseases in the extremities	91
Miscellanea	100
Diseases of women	108
Anatomical-physiological section	114
Surgical diseases	120
Appendix	129

Foreword

THE PRESENT TRANSLATION has been made from W. Wreszinski's hieroglyphic transcript, as I am not sufficiently conversant with the hieratic writing to be able to use Ebers' original edition. In some few cases, where I have taken the liberty to deviate from the transcript (the interchanging of r and t apart), I have pointed this out in the foot-notes.

Unfortunately there are still many words, the sense of which is completely unknown, and which I have had to leave untranslated, as I did not wish to commit myself to random guesses. However, I hope I have succeeded in determining the sense of many names of diseases and symptoms and in identifying various drugs; besides, I believe I have found out what is referred to in most of the descriptions of diseases. I therefore hope that my translation will be able to deepen the knowledge of the Papyrus Ebers, and give the readers a fairly clear impression of its interesting medical contents and of the high level to which the ancient Egyptian medical art had attained.

It is here my pleasant duty to express my heartfelt thanks to Dr. H. O. Lange for his kind advice and valuable assistance for many years during my work with this papyrus.

Cordial thanks are also due to the Committee of the Nansen Fund for grants yielded for the promotion of my studies of ancient Egyptian medicine.

Stavanger (Norway). April 1936.

B. EBBELL.

and is the designation of a man who uses superstitious means, such as exorcisms, amulets, magic arts and the like. Probably they had a great influence on the men of those times and were able to cure diseases where a psychic influence was especially needed.

Corresponding to these three kinds of healers we note that Papyrus Ebers uses three different kinds of healing remedies, viz. medicines, operations and spells.

Of medicines an imposing quantity is mentioned, taken from the vegetable, animal and mineral kingdoms. Assuredly several of these remedies were without any great value; but this does not mean that the whole of the ancient Egyptian *materia medica* is but a collection of inefficacious and superstitious drugs. A closer study shows that many of the remedies contain chemical substances which are, no doubt, very effective, and occasionally some hits may be found. As examples may be stated that semen ricini, colocynth and senna were used as evacuants, the root of punica granatum was given against intestinal worms, liver against night blindness, various metallic salts against diseases of the eyes, and tannin-containing plants were used in cases where an astringent might be indicated. But the best evidence of the high value of the Egyptian remedies is the fact that they have been able to hold their ground during millenniums; a great many of them are found in Dioskurides, the Greek pharmacological author, and from him they have been handed down to later times.

Among the drugs evacuative remedies were dominating. They are not only prescribed for diseases in the intestinal tract, but in many cases where it seems absurd for us to use laxantia, thus for several skin-diseases, for instance exudation, eating ulcer and spotted baldness. This was certainly due to the Egyptians, like the ancient Greeks, imagining that these and other ailments were caused by certain disease-producing humours or a *materia peccans* in the belly, and that it was thus necessary to have this unsound matter removed by means of purgation.

The remedies are used in an entirely rational way. For internal diseases medicine is generally to be taken, against pain external

applications are much used, and in diseases of the lungs sometimes inhalations. Diseases of the skin are treated with ointments; in affections of the eyes the remedy is dripped into the eyes, or ointments or bandages are applied to the eyelids, in diseases of the ear the remedy is dripped into the ears, and for affections of the mouth gargling is prescribed. Enemas are often used; for gynecologic ailments internal and external remedies, injections into the vagina and sitz baths are used.

The prescriptions in Papyrus Ebers in a remarkable way recall the ordinary prescriptions of the present day. They contain one, or generally more, substances that are evidently meant to be the active ingredient or "basis". Besides a constituent, that is, for ointments, fatty matters, and for potable remedies water, milk, wine and, above all, beer. Frequently a gustatory corrective, generally honey, is prescribed. Then it is briefly indicated what is to be done with these ingredients: they are to be mixed, pounded, boiled, strained, left during the night in the dew etc.; occasionally there is an elaborate description of the mode of procedure. Finally there follows the direction: to be drunk, eaten, rubbed in etc. The internal remedies are generally to be consumed in the course of 4 days, more rarely all is taken during one day.

Here may be added a few remarks on the measurements in the prescriptions. It must be noted that the Egyptians always seem to have used measures of capacity, not weight, even for the dry matter. First there are certain symbols for fractional parts of the ordinary measure of capacity, a $\text{ḥk}^{\text{ḥ}}\text{ḥ}t$, which took 4.785 litres. The lowest of these fractions is $\frac{1}{64}$; this quantity seems to have been considered as a new special standard of measurement, and the reference is probably to this wherever we find the figure one (a stroke). But most frequently we meet with ordinary fractions, without any indication as to what standard of measurement is used; they are supposed to be fractional parts of the measure of capacity $\text{ḥ}nw$ ($= \frac{1}{10} \text{ḥk}^{\text{ḥ}}\text{ḥ}t$), or "hin", as it is generally called by the Hebrew name. In the present translation these different indications of quantity have been converted into the Egyptian measure "ro", which is $\frac{1}{320}$ of a $\text{ḥk}^{\text{ḥ}}\text{ḥ}t$, accordingly about 15 cubic centimetres, or a spoonful.

completely impossible to grasp the meaning. The translation must therefore be considered merely tentative, and the whole is so uncertain that one must not found too much on it.

As a comparison it may be of interest to mention briefly the different medical papyri which have so far been known and issued.

The oldest one is the *Kahun Medical Papyrus*, which was written about 1900 B.C. and has been published with a hieroglyphic transcript and translation by Prof. F. Ll. Griffith. It is quite small, only three pages, and it is in no very good condition, much of it being illegible. It treats of diseases in women, and it explains all of them as being due to morbid states in, or a wandering of, the uterus, consequently in a certain sense as "hysterical". The description of each affection begins with a quite short indication of the symptoms, then follows what the physician is to say about the case in question, and at last the treatment, consequently the same scheme as is found in a somewhat enlarged shape in the *E. Smith* and the *Ebers Papyrus*. The last page of the *Kahun Papyrus* deals with methods of ascertaining pregnancy and the sex of unborn children.

Next in time comes the *Edwin Smith Papyrus*, which must probably have been written circa 1600 B.C. and has been published by Prof. J. H. Breasted; a magnificent edition with a hieroglyphic transcript, a translation, and a very valuable commentary. It is an excellent and well arranged medical work which treats of all kinds of wounds, fractures, luxations and the like, but it does not mention tumours that are to be operated upon, such as occur in *Papyrus Ebers*. Just like the text-books of surgery of the present time, it reviews the different affections systematically from the head downwards; unfortunately it suddenly stops in the middle of the treatment of an injury to the spine. In 17 columns of the papyrus there are altogether 48 excellently drawn descriptions of diseases; after each of these follow explanations of difficult words, probably unknown even to ordinary Egyptian readers, and, of course, still more so to us, so these glosses are of great value for the interpretation of

Introduction

PAPYRUS EBERS is said to have been found in a tomb and was bought in 1873 by Professor Georg Ebers and deposited in the University Library of Leipzig. In 1875 Ebers published a facsimile edition of it in two folio volumes with an introduction and vocabulary, a splendid work, such as this valuable ancient relic deserved. Later on individual parts of the papyrus have been subjected to examination by different investigators; besides Ebers himself, may be mentioned amongst others J. Lieblein, H. Schaefer, H. Lüring, von Oefele, H. Grapow and W. R. Dawson. In 1913 W. Wreszinski published a very practical hieroglyphic transcript of the whole papyrus. As early as 1890 H. Joachim had produced a translation of it; but at the stage then attained in Egyptology this was too risky an enterprise; thus there are many mistakes and vague guesses, and one gets but a slight notion of what diseases are referred to in the text.

As the very name suggests, it is written down on the peculiar writing material which the Egyptians prepared from the papyrus plant. As usual in this kind of work, the so-called hieratic writing is used, and the characters are exceptionally beautiful and clear. For headings and the like red ink has mostly been used, whereas the rest is in black. In the present translation this difference has not been indicated, being of no importance for the understanding of the contents.

The original papyrus was 20.23 metres long and 30 centimetres high. The text is distributed in 108 columns, each of 20—22 lines. The scribe having left out the figures 28 and 29 during the pagination, the last column happens to bear the

heading "110". (The Roman numerals in the margin of the translation indicate the commencement of the individual columns).

On the back of the papyrus is found a calendar with a king's name; this fact, in connection with palæographical grounds, has made it possible to fix the time of writing at about the year 1550 B. C. But the contents must, no doubt, be of a much older date. Thus it is said in a section on the use of the ricinus plant (47,¹⁵ seq.) that it "was found in old writings", and a book about the vessels (103,¹ seq.) is said to have been found in the days of Usaphais, a king of the I Dynasty (more than 3000 years B. C.); a prescription of a hair remedy (66,¹⁵) is said originally to have been prepared for Shesh, the mother of king Teti, who belonged to the VI Dynasty (ca. 2500 B. C.). Such information is not to be trusted, but in any case it is certain that lots of the prescriptions are found quite unchanged in the other medical papyri, so they must, no doubt, have belonged to the authorized directions that were handed down from the forefathers, and that the physicians were obliged to follow.

In several places Papyrus Ebers designates itself as a "compilation", and there is much evidence to show that it is a copy of various ancient works. However, this compilation has not been undertaken quite casually, but according to a definite and closely considered plan, care being taken to include the most different diseases that a "physician" should treat. Little is said about wounds and nothing at all about fractures and luxations; but this kind of case probably belonged to the "surgeon's" metier. As for the rest, everything has been included, internal medicine as well as the different specialities, and as a rule all prescriptions concerning a particular illness are collected in one place; only for diseases of the eyes and of women this rule has not been strictly adhered to. Thus good order prevails, even when the sequence is not always the one we would have chosen. There are only some few prescriptions that must absolutely be said to have been put into a wrong place.

Papyrus Ebers consists, for the greater part, of recipes against various diseases and symptoms; in this respect it may especially

be compared to works like *περὶ ἀπλῶν φαρμάκων* by Dioskurides and *περὶ εὐπορίστων* by Galen.

J. H. Breasted (in "The Edwin Smith surgical Papyrus") has spoken in disparagement of the Papyrus Ebers, because it contains comparatively few descriptions of diseases and chiefly consists of recipes. But this alleged failing has its quite natural cause; descriptions of the diseases were not needed by the Egyptian readers; the name of the ailment was stated, and then the physician knew at once what was the matter. To adduce an example: Cough. Everybody knows what this is, so it ought not to be necessary to say anything more about it. For this reason the papyrus may, without any introduction, give directions for treating the cough, and this is done in 21 prescriptions. The same applies to the recipes in all the other cases.

In order that the reader may better understand how things really were in this respect, it may here be pointed out that most of the Egyptian "names of diseases" do not designate the whole disease according to our ideas, but only simple symptoms, and such conspicuous ones, too, as even the unlearned might distinguish. And most of these "names of diseases" probably belonged to the ordinary popular language and were familiar terms, so that there was no necessity for any descriptions or definitions.

The medical knowledge of the physicians was, however, not limited to such diseases as had their special name in the language; as good observers they had perceived that certain symptoms often occur together, and on this basis they were able to establish various syndromes as pathological unities, for instance angina pectoris (37,10-17). But in such cases it was, of course, necessary to supply a description of the disease, so that one might know what was referred to; and as a designation for these cases they had to make use of a more indefinite term, which might suggest the nature of the illness in question, e.g. swelling of the vessels, matter-swelling, liver case, weak digestion and the like. Of such cases there are on the whole 45, most of which have been grouped in two sections, namely 36,4—43,2, where

different internal ailments are spoken of, and the surgical section (103,19—110,9).

To illustrate the capacity of the Egyptians, but at the same time their limitations in distinguishing the diseases, a brief example may here be adduced. As a designation for ailments of the lungs, they had only two names of symptoms, cough and asthma (i.e. asthmatic wheezing respiration); thus they were not able to distinguish bronchitis, pneumonia and tuberculosis from each other. The physicians, however, knew a special lung affection which is described in 37,4-10; it appeared as expectoration, and the sputum was of such a nature as to give one the impression that the chest of the patient contained "like a latrine-cave". There can be no doubt that the reference here is to a disease with fetid expectoration such as is found, for instance, in gangrene of the lung.

In the introduction to a section on the vessels of the body (99,2-3) three different categories are mentioned which were concerned in curing diseases, namely *swnw*, the goddess Sachmet's priests, and *s3w*.

The word *swnw* no doubt corresponds exactly to what we understand by "physicians", that is, men who try to cure in a natural way by means of remedies, internally and externally. It is difficult to form any opinion as to whether they also undertook operations.

"Sachmet-priests" must probably be the designation of *surgeons* ("Wundärzte"). In the Edwin Smith Papyrus 1,6, where we have a duplicate of the section on the vessels, "Sachmet-priests" are mentioned first, whereas in Papyrus Ebers they are placed as No. 2, and this is most likely due to the fact that the Smith Papyrus was especially intended for Sachmet-priests, just as Papyrus Ebers was specially meant for "physicians". Now, the Smith Papyrus chiefly treats of all kinds of external wounds, fractures, luxations and the like, and a man who has this kind of affection as his special field of action, we should designate as a "surgeon" ("Wundarzt").

The word *s3w* must mean *sorcerer or exorcist*

the text. On the verso of the papyrus we have $4\frac{1}{2}$ columns with incantations and prescriptions against different diseases.

Then follows the Papyrus Ebers which was written about 1550 B.C.; with its 108 columns it is, by far, the largest of them all, well preserved and complete, and it forms a finished whole. It does not contain anything about fractures and luxations; but otherwise it comprises all kinds of diseases, those that appertain to internal medicine as well as those appertaining to the specialities. From this we thus get the best impression of the standing of the medical art in ancient Egypt.

From about the same age dates the Hearst Papyrus. It has 18 columns, some of which are in no very good condition. It consists chiefly of recipes, a remarkably large number of which are identical with prescriptions in Papyrus Ebers; but there is no fixed order, internal and external diseases succeeding each other at random. This papyrus may in some cases be supplementary to Papyrus Ebers and assist us in deciphering the latter, but otherwise it is of less value.

The Berlin Medical Papyrus is said to have been written about 1250 B.C. It has 21 columns on the front side and 3 on the verso, and it chiefly contains recipes, but they are not arranged according to any definite plan, and the whole must be said to be of little value compared to Papyrus Ebers. The pages on the verso deal with methods of ascertaining pregnancy and the sex of unborn children.

The so-called London Medical Papyrus was probably written about 1350 B.C.; it is in a very bad condition. It contains some prescriptions, but chiefly it consists of incantations against different diseases, so it hardly deserves the name of "medical".

Of these three last-mentioned ones Prof. W. Wreszinski has published hieroglyphic transcripts with a translation and commentary.

This introduction may appropriately be concluded with a few remarks on the importance of ancient Egypt.

tian medicine for the development of the medical art.

It must then at once be pointed out that Greek medicine is by no means so original as people were formerly inclined to believe, but that a very great deal of it has been taken over from the ancient Egyptians. This is especially conspicuous in *materia medica*; an overwhelming number of remedies in the medical papyri are found in Dioskurides and are prescribed against exactly the same diseases, so there can be no doubt that the Greeks must have borrowed them from the Egyptians. The existing papyri containing but minute parts of nosology and pathologic doctrines, it is difficult to make out how much of the rest of Greek medicine is a loan from the Nile Valley. There are, however, a few things that we may point to:

As mentioned before, the Kahun Medical Papyrus speaks of the different diseases of women as being due to morbid states in, or wanderings of the uterus; exactly the same statement is found in the Hippocratic work "de morbis mulierum" 2nd book. At the beginning of the E. Smith Papyrus various injuries to the skull are described, quite systematically arranged: first the superficial wounds and then successively the deeper and deeper-going wounds; this recalls the description in the Hippocratic writing "de capitis vulneribus". According to Papyrus Ebers 36,4—43,2, affections of the "mouth of the stomach" (*r3-ib*) may be accompanied by diseases in different organs; herewith may be compared Alexander Trallianus' statement (VII, chap. 1) that when the "mouth of the stomach" (*τὸ στόμα τῆς γαστρὸς ἢ ἡ καρδία*) is ill, it becomes a source of many ailments, bringing about epilepsy, cramps etc. The surgical section in Papyrus Ebers (106,3—110,9) treating of the different kinds of "swellings", reminds one of Galen's work "de tumoribus contra naturam" and may, no doubt, be considered as a forerunner of the same.

And indeed, even the ancient doctrine of the disease-producing humours as the cause of different diseases seems to come from Egypt. For the word *štt* is used in various places in a way showing that it must have been an analogue of the Greek

φλέγμα (phlegm): it is sometimes determined as a fluid, it may putrify and may make its way to different organs, producing diseases in them, and just the same ailments as are alleged to be brought about by phlegm, e.g. ileus (see Papyrus Ebers 25,3-8 and the Hippocratic work "de glandulis" chap. 14). Further, some terms in the Papyrus Ebers have led me to suppose that the word *'rwt* may possibly correspond to the Greek *χολή* (bile).

Thus we see that Greek medicine is by no means original, but has taken over very much from Egyptian medicine and can only be looked upon as a further development of the latter. As mentioned before, the oldest of the existing medical papyri was written circa 1900 B.C. Even then the Egyptian medical art must have been at a fairly advanced stage, which necessarily implies a long development, probably at least from 3000 B.C. There is, accordingly, every reason to believe that the science of medicine has its origin in the Nile Valley.

Since, then, Egypt and not Greece must be considered the original home of the medical art, we ought not to set up the Greek Asklepios as the patron genius of medicine, but rather the physician whom the Egyptians gave this dignity, viz. *Imhotep*.