

## EGYPTIAN MEDICAL POPYRI

SAMIR YAHIA EL-GAMMAL\*

### ABSTRACT

Many valuable medical popyri on the remote civilisation of the ancient Egyptians have discovered during a period of more than 100 years ago. This immortal Egyptian medical civilisation shows a wonderful type of specialisation in pharmaceutical and medical professions and also in medical scientific writing together with an advanced surgical art. A study of these popyri shows that, the art of preparing the drugs and medicaments together with the knowledge of the properties of the medicinal plants was much earlier than the art of anatomy and surgery. These popyri are considered as the pharmaco-poeias of those ancient periods.

Many valuable rolls of medical popyri have been discovered during a period of more than 100 years ago, which gave light on the remote civilisation of the ancient Egyptians, thus proved the wrongly belief that the ancient Greek civilisation was the first one to appear in all the world, and that Egypt was the real cradle and origin of civilisation.

Going through these popyri, they show that the art of preparing the drugs and medicaments together with the knowledge of the properties of the medicinal plants was much earlier than the art of anatomy and surgery. Copying of these popyri was made by professional scribes who had a limited knowledge of medicine (non-

physicians). This denotes that the ancient Egyptian pharmacy was the oldest therapeutical profession, practised by herbalists since very remote ages, before medicine and surgery was practiced.

These popyri are considered as the Pharmacoepias of those ancient periods. They constitute very valuable eternal heritage, showing how the ancient Egyptians reached a high stage of glory in their therapeutical civilisation, in prehistoric ages, while the European ancestors were dwelling in the darkness of knowledge.

This immortal Egyptian medical civilisation shows a wonderful type of specialisation in pharmaceutical

---

\*Historian, P. O. Box 136, Maddi, Cairo, EGYPT.

and medical professions and also in medical scientific writing together with an advanced surgical art. Thanks to these medical papyri which were preserved for the present generation and the generations to come, which in the past were copied and adopted by the near-by countries of the Middle East and crossed the Mediterranean sea where it went deep in ancient Greek and Mid of Europe and became a part of their folk-traditional curative formulae and thus shows the influence of the ancient Egyptian medical civilisation on the whole of the civilised world.

Both Edwin Smith and Ebers papyri were discovered together in one jar. The former was considered by the ancient Egyptians as the Text-Book of Surgery while the latter as the Text Book of Medicine.

These medical papyri are :

#### 1. Ebers medical papyrus :

It was discovered in 1862 in somewhat good condition, bought by the German, George Ebers in 1872 and was named after him. It is the longest, most important and famous historical and medical document. It is kept in Leipzig University. It is neatly written denoting good care in its writing, in red and black ink, and comments on some of the prescriptions, describing them as good, which might be the work of a pharmacist who found it beneficial while preparing some of its recipes.

It is believed to have been written in 1550 B.C. at the beginning of the 18th dynasty, evidenced by the appearance of the name of the king of that time. It clearly shows that it was copied from an older manuscript. It is written in Hieratic writing of the Egyptian language, with heads of the subjects in red ink. It also constitutes the oldest proof on the high level of civilisation in the art of pharmacy in ancient Egypt. (Translated by Wreszinski in 1913 and again by B. Ebbell in 1937).

One can observe the following :

a) The medical prescriptions were arranged according to the different organs of the human body. This tabulation is the primary step in the pathway of development for the sake of science.

b) The papyrus begins with three incantations. Here we find the first separation between magic and medicine, since it contains about 877 medical prescriptions and only twelve incantations. This is a clear evidence for the dependance on drugs rather than magic and proves that the pharmacist was the only one in charge of the preparation of the prescription's ingredients.

c) It also contains the ways of treatment of the diseases, caused by worms, haematuria, vitiligo, leprosy, ophthalmias (endemic diseases in ancient Egypt from remote periods),

also against wounds, tumours, boils, nasal and ear affections, gynaecology .. etc., drugs against termites, scorpions, lizards, rats...etc.

d) It is nearly the only papyrus that mentions diagnosis together with the prescriptions; a matter which was very rare in the rest of the medical papyri discovered. It also shows that the ancient Egyptians knew how to differentiate between closely related diseases, and their tend to perform many trials and experiments, as observed in that prescription for the regrowing of the scalp's fallen hair, prepared by the King Teta's mother (3rd king of the 1st dynasty), which shows that this papyrus was the result of many years of experiments before it was written, probably before the dynastic period, and that medical knowledge was interchangeable between ancient Egypt and other neighbouring countries like the city of Byblos in Lebanon. Certain words were found to be prehistoric while copying, so a side note was added to explain their meaning.

Ebers papyrus is 20.23 metres long, with 108 columns each of 20-22 lines.

e) Also mentioned in the papyrus, a prescription prepared by a pharmacist named "Khoy" in Heliopolis for the cure of ocular infections. This proves that there existed in Heliopolis, pharmacists who used to prepare certain medicaments, called after their names as a sort of trade mark

registration and monopoly, same as to-day.

f) The pharmacists at that time were very skilled in the preparation of medicaments and in their selection. They used fresh medicinal plants or sometimes boiled; fruits unripe, ripe and over ripe, all parts of the medicinal trees even their spikes, thorns or resin with special attention to the right and exact time for choosing these drugs, and their preparation time and the best localities to obtain them.

They also added sweetening agents so as to obscure the bad taste of some of the drugs, by using beer or milk. They also knew how to differentiate between simple, cold and bitter kinds of beer, and between fresh, sour and cooked milk from different sources such as mares, cows or human. Also, knew sycamore latex, simple and mineral water, linseed emulsion, flour water, natron water .etc.

g) The prescriptions contained different sorts of food, skin and hair ointments, pills for chewing, enemas, ear wash, body wash, nasal drops, gargles, suppositories, snuffs, incense, purification vapours, perfumes, inhalations, potions, cataplasma, ophthalmic preparations; eye ointments and drops, Kohl and several medical advices.

The surgical part was written in

the same pattern as in Edwin Smith papyrus.

## 2. Edwin Smith surgical papyrus:

It was discovered in 1862 A.D. by the American Edwin Smith, together with the Ebers papyrus, and is kept now in the Historical Society of New York. It dates back to nearly 1700 B.C., but shows that it was recopied from the original manuscript which was written by Imhotep, the famous physician of that age, round 2800 B.C., (Translated by James Breasted in 1930).

It shows the following :

a) It comprises 17 columns, 469 lines, with a length of 4.68 metres, full of ancient Egyptian drawings, vertically and horizontally oriented and believed to have been written by different persons due to the insimilarity of the writings, but looks identical to that kind of writing commonly used during the Hyksos invasion.

b) It contains explanations of several cases without mentioning the treatment. Also other cases which could not be cured, description of wounds and fractures that occur in the different parts of the body. Also contains some incantations and prescriptions for rejuvenation of the elder people. So it shows how remote the ancient Egyptians' great civilisation, and to how extent was the development of surgery by them.

c) It is also concerned with the treatment of surgical cases together with some magical incantations and spells. It shows how great the human mind was in discovering the hidden secrets of the human body and how progressive were the ancient Egyptians in the classification of the study of the surgical cases by first describing them, then their examination, diagnosis, choice of the treatment, ways of preparation of the medication and mode of use.

Concerning surgery, the ancient Egyptian surgeons were very skilled in operating on wounds, head concussions, broken limbs.. etc, using various surgical instruments of various shapes such as curved knives, drills, saws ..etc. They used to open the skull, remove any blood clots or stop bleeding, then clean the damaged tissues and finally replace the piece of skull and bind it in position with bandages and adhesives.

Such operations were performed by the ancient Egyptians, even in pre-dynastic times (a number of skulls have been found which bear evidence of trepanning, and the patient sometimes survived as the fact that the severed section of the skull had knit to the parent bone, as was found in one of the mummies).

Other operations as delicate as this were performed by the Egyptian surgeons, as was written in Edwin

Smith surgical papyrus (c. 1700 B.C.) which is considered the oldest book of surgery in the world, with cases ranging from injuries of the cranium to the lower spine, all methodically arranged. Each of its 48 cases were preceded by a brief caption expressing a summary diagnosis, followed by another detailed diagnosis, a brief but clearly formulated prognosis and sometimes the therapy. In most cases, a later Egyptian commentator added one or more explanatory notes to the original text, in order to interpret expressions difficult to understand or to expound obscure passages containing words or expressions which have become obsolete since the original text of the manuscript.

This papyrus must therefore have been one of the standard text-books used in the Egyptian medical schools, and was certainly much older than the date of the present manuscript, in fact it is most probably over 6000 years old.

### 3. Hearst medical papyrus :

It was discovered in 1901 and was named after the lady who paid for the expenses of Dr. Reisner's expedition in Egypt, and her name was Mrs. Phoebe Apperson Hearst of America. The papyrus contains 18 columns, 273 lines and 660 prescriptions.

It dates back to 1500 B.C., and is

preserved in California museum. It is believed to have been written at the same time with Ebers papyrus, but is not a copy of it, although very similar in its prescriptions, but contains a lot of informations that are not present in Ebers, and some prescriptions are literally repeated in both of them. Also the arrangement of the prescriptions are quite different and some of the headings in the identical ones differs. (Translated by Reisner in 1905, then by Werszinski in 1912 then by Lutz et al in 1935).

It is clearly evident that the writer of Hearst papyrus had taken his informations from Ebers papyrus and from some prescriptions gathered and collected by some physicians from the folkloric medicine of the villagers which was handed from generation to generation, either verbally or in writing. (Sometimes considered as the practitioner's recipe book).

Also, it is clearly evident that Hearst papyrus was written in a small village in contrast to Ebers papyrus which was written in the big and modern city of Thebes due to the contents of the civilised medical information.

**One can clearly see the following;**

a) The ancient Egyptians arranged the ways of treatment according to the organs of the human body, with mention of the cure for expelling evil spirits, fear, anxiety ..etc.

b) Decoctions were prepared in the open dew, and the ointment bases consisted of lard, fat, olive oil ..etc.

c) Incantations were recited during weighing of the prescription's ingredients, showing [how accurate the ancient Egyptians were in specifying each dose.

d) Oil, honey and beer had special appreciation, and whenever any of them was mixed with other ingredients, a special pray was done.

e) The patient's name was always written in red ink while the ingredients were in black with the doses in red.

f) The ancient Egyptians had special ways of treatment concerning teeth inflammation, headaches, breast swelling, stomachache, heart troubles, broken bones, tumours, boils, bites of crocodiles, pigs, wild buffaloes, lions, human beings, ..etc. Also for the different types of wounds, urinary infections and diuresis, bladder infection, general debility.

g) They used to cure anaemia by eating cooked bull's liver or its blood, had prescriptions for body pain. Evil spirits were expelled from the sick bodies with special prescriptions composed of several herbs mixed with honey. This clearly shows that they did not use magic only for that purpose.

h) The papyrus contain prescriptions for the preparation of pills, potions,

dressings, cataplasma, limb plaster, diet food, creams, ointments, powders, magic incantations ..etc.

i) Hearst Papyrus resembles to a great extent the Berlin papyrus, with literal and identical similarity to the Ebers papyrus prescriptions.

#### 4) Berlin medical papyri :

(Nos. 3038 & 3027); (Erman papyrus);

They were found together by the Italian 'Guiseppe Passalacqua' in 1825 near Memphis and are kept in Berlin Museum. They are of great similarity, specially that of No. 3038, to that of Ebers and Hearst papyri. Both were written in black and red ink. They were considered as the most precious volumes in the library of the God Imhotep in Memphis. (Translated by Erman in 1901).

The first one (No. 3038) which is the most important of them, is of 5.16 metres long, with 15 columns, and dates back to 1550 B.C. A heading at its beginning denotes that it was an "Introductory for medical prescriptions against pain", and that it was copied from an old papyrus that was found at the feet of the God Anubis in Osim (Imbaba to-day, a suburb of Greater Cairo), during the reign of the King Athothis, the 2nd king of the 1st dynasty, (who was also a physician and wrote a valuable volume on anatomy), then that old papyrus became the possession of King Send. (Galen referred much in

his medical books about this old papyrus). (contains 279 lines and 204 prescriptions). It was written by the physician "Neterhotep". One can observe the following in this papyrus:

a) It contains prescriptions against pain, evil spirits, painful micturition and haematuria (Bilharziasis), and intestinal worms (*Ascaris* & tape worms), against vomiting, fever, breast tumours, stomach and heart troubles, scorpion bites, burns, ear pain ..etc.

b) Liniments were used orally in two prescriptions.

c) It also contains 8 prescriptions for detecting women's ability to pregnancy, thus proving the great interest of the ancient Egyptians in that matter, to the extent that they called the God Imhotep "children giver to those who have none".

d) It also contains 3 magical incantations; one of them to be recited before the oral intake of drugs, the second to alleviate pain, and the third against stomach pain.

The other Berlin medical papyrus (No. 3027) dates back to 1350 B.C., and is composed of 21 columns, 3 prescriptions and 30 incantations. (Translated by Wreszenski in 1909).

**5) London medical papyrus :**  
(No. 10059);

It is a small papyrus roll, found in 1860 A.D., and is preserved in the

British Museum. It is written in the Hieratic writing, and mostly deteriorated, with many incantations and few prescriptions, dating to 1350 B.C. (63 prescriptions, 11 of them were mentioned in Ebers papyrus). It was thought first that it belonged to the 4th dynasty (2720 B.C.) due to the mention of the name of the King Khufu (Cheops), but it was found from the pattern of the writing that it was written in the 19th dynasty. Most of the prescriptions were copied from older texts, but due to the abundance of magical spells, it shows that magic at that time was dominant over medicine and drugs. (Translated by Wreszenski in 1912).

One can deduce the following;

a) One of the incantations was against strong fever, in which a plead to the Gods was made to remove the bad glands from the patient (most probable a tumour).

b) It contains 11 prescriptions composed of cataplasma and dressings, 6 ointments, 26 incantations . etc.

c) The medical prescriptions are few and simple in their formulae, using herbs which were available at home such as wheat, barley, lard, lettuce, honey, carob, sycamore latex, palm pollen grains . etc.

d) Chemicals such as heavy metals were introduced in the prescriptions

such as white lead, red lead oxide, antimony sulphide .etc.

e) Most of the prescriptions were meant for the treatment of burns, wounds, using lead salts, poppy plant for gangrenous burns.

f) It is composed of 19 columns.

#### **6) Chester Beatty medical papyrus :**

This papyrus dates back to 1250 B.C. It was bought by Chester Beatty at the end of the 19th century and was given as a gift to the British Museum. It consists of 8 columns, each with 14 lines, and contains 41 prescriptions for the treatment of the anal diseases. The scientific opinions in this papyrus resembles very much those ones which Hippocrates adopted in his works concerning the anal anatomy and diseases. Also the prescriptions are classified into subjects, with similar pattern, denoting that the writer was a specialist in the anal diseases. (Translated by Jonkheere in 1947).

The scientific level of this papyrus coincides with that of Ebers and Kahun papyri, and with same importance as Berlin papyrus. It does not contain any new medical informations because the anal diseases were mentioned in Hearst, Edwin Smith and Ebers papyri.

Other Chester Beatty medical papyri (Nos 10690, 10695, 10698),

are also preserved in the British Museum; the 1st one totally dedicated to prescriptions against sexual weakness, while the other two are on medicine and magic.

#### **7) Kahun medical papyrus :**

It was discovered in 1889 and is considered the oldest medical papyrus, written circa 1900 B.C. It deals with diseases of women. The description of each disease begins with the chief symptoms. The last page mentions methods of ascertaining pregnancy and sex of foetus. It is 1 meter long and 32.5 cm wide, composed of three columns. It resembles the texts of the other medical papyri and does not contain any description of surgical treatment, but with many drugs. (Preserved in the British Museum). It contains 154 lines, 34 prescriptions. (Translated by Griffith in 1898). This papyrus proves to be the origin from which Ebers and Edwin Smith papyri have copied, due to the similarity of the prescriptions.

Another papyrus was discovered by the same person, and was called Kahun veterinary papyrus. It treats fish, birds and animals. Also preserved in the British Museum. It dates back to the same period as the medical one (Also translated by Griffith in 1898).

#### **Ramesseum papyri :**

These are five small medical



papyri, each with about 20 lines, and contains prescriptions for the treatment of different diseases of the eyes, burns, urine, pain, worms..etc. They date back to the 19th dynasty.

**Lieden papyrus :**

This medical papyrus is preserved in the Lieden Museum, Holland, and dates to the same period as that of Berlin papyrus (No. 3038), i. e. round 1350 B.C., but less important since the medical prescriptions are few and the incantations are many, composed of 10 columns.

**Louvre medical papyrus :**

This medical papyrus is preserved in the Louvre Museum, France. It is very short, composed of 3 columns.

**Turin papyrus :**

It is a small papyrus with many incantations.

**The Greek medical papyrus :**

It is a big papyrus, preserved in Lieden Museum, Holland. It contains prescriptions similar to those in Berlin papyrus (No. 3038). composed of ointments and mixtures, mostly about sex problems, written in Greek.

**The Lieden Greek papyrus:**

It was written in the 1st century A.D. in Greek, found in Upper Egypt and is preserved in Lieden Museum, Holland.

**Gardner medical papyrus :**

It was written circa 2000 B. C.,

and composed of 29 lines, deals with gynaecology and midwifery.

**Carlsberg medical papyrus; (No. 8):**

It is composed of deteriorated bits of papyri, preserved in the University of Copenhagen, Denmark, dates back to the 19-20 dynasty. The front columns contains prescriptions ophthalmology while the back on gynaecology, with delivery symptoms, sex of the baby..etc. It resembles that of Berlin papyrus (No. 3038) and that of Kahun papyrus. (Translated by Erik Inversen in 1939 and by H. Grapow).

Many of the theories enclosed in this papyrus were copied by Hippocrates, which were later found in the English folkloric medicine of the 12th century A. D., and in the German folkloric medicine of the 17th century A. D. Most of these informations on medicine were distributed in Europe by the famous physician Constantinus Africanus who was a graduate of the famous school of medicine of Salerno, Italy in 1200 A.D., and were found in his belongings after his death. This school played a great role in the spread of the ancient Egyptian medicine in the whole of the European continent, thus proving that the ancient Egyptian medicine was adopted by the Greeks which was later transferred to the Romans.

Carlsberg medical papyrus was literally copied from the Ophthalmochapter of Ebers papyrus.

Of the later medical papyri, which were copied from the earlier ones are the following :

**1) The London Demotic medical papyrus :**

It was written in the Demotic writing of the Egyptian language, and dates back to the 3rd century A.D. It contains a good some of the old medical informations, and preserved in the British Museum.

**2) The Golenishef papyrus :**

It dates back to the Roman period, round the 3rd century A.D., and devoted to gynaecology, written in Greek.

**3) Cattawi papyrus :**

It is devoted to surgery, written in Greek, and dates back to the 3rd century A.D.

**4) Coptic papyri :**

They are papyri or parts of big volumes, written on parchment paper, found in different parts of Egypt and contains many medical prescriptions, giving a clear idea on the medicine during the 1st-8th century A.D., all written in the Upper Egypt coptic language.

**a) El-Mashayekh or Chassinat papyrus; (9-10th cent. A.D.) :**

It is one of the important references on the drugs and medical treatment, written during the 9-10th centuries A.D. and was found in Upper Egypt in 1890. It is 2.48 metres

long and 27 cm wide with 240 lines and 237 prescriptions.

It resembles very much the earlier ancient Egyptian papyri and contains more about the Greek knowledge on medicine and the Arabic civilisation, evidenced by the abundance of Arabic names of drugs in the text. It is preserved in the French Institute of Oriental Antiquities, Cairo. (It was translated by Chassinat). It is characterised by the extensive use of opium as a sedative in gynaecology and ophthalmology.

**b) Zöega medical papyrus;**

(7-8th centuries A.D.) :

It is preserved in the Vatican library, and consists of two papers of parchment in 4 pages, and contains 45 prescriptions on dermatology. It was a part of a big and important volume (245 p) which was lost. It is written in the Coptic language, after being translated from that pharaonic volume which was preserved in Imhotep library in Memphis, with the approval of its keepers. (It is preserved in Italy and was translated by Zöega).

It clearly shows the influence of Christianity on the pattern of writing of the text, in which the names of the Pharaonic Gods were replaced with the names of Christian archangels (Isis, Horus to Gabriel, Rafael, Israel, Michael ...etc.).

This papyrus explains the ways of preparing the drugs, uses of sulphur baths in hot water for the treatment of Scabies, and the extensive uses of minerals in topical usage.

**c) Xenon papyrus :**

A small medical papyrus, found in a deteriorated state.

Other medical papyri are distributed in the museums of Paris, London, Turin, Berlin, Budapest, Vatican and others, which show many of the medical traditions that are still in use up till now in Egypt, in the same way, and even in Europe.

Other papyri which are found in the British museum and in Turin contain almost identical sections and seem to have been transcribed from one master book.

**Conclusion :**

- 1) These medical papyri are considered as documents and text books, semi-official, copied from earlier volumes with or without some modifications. They were valued as educational references, that laid down strong cultural bases to the profession of Pharmacy and all medical branches including surgery. They were considered as the Pharmacopias of those periods.
- 2) Some of these papyri are wholly medical such as Ebers, some sur-

gical like Edwin Smith and some with magical incantations and spells like Berlin papyrus.

- 3) Some of them are well arranged scientifically, in the following manner:
  - a-type of disease.
  - b-method of examination.
  - c-diagnosis.
  - d-description of the treatment.
  - e-method of preparation of the prescription.
  - f-mode of use.

A mere glance to one of the cases in Edwin Smith papyrus on surgery shows how accurate were the ancient Egyptians in their scientific knowledge.

- 4) All of the medical papyri contains drugs of plant, animal and mineral origin, with more than half of the former.
- 5) Many of the plants used in the different prescriptions are unknown up till now, because many of them were given secret discriptive names, many have stopped to exist in Egypt, others have been imported from the neighbouring countries, ..etc.
- 6) All these medical papyri are wonderful and immortal heritage to Egypt and to all the civilised world, showing how glorious were the ancient Egyptians in

their medical knowledge since very remote historical periods, and also gives a good example about the specialisation in professions and in medical writing and also about the great development in surgery they achieved.

- 7) The information contained in all these medical papyri were copied and recopied by all the neighbouring countries of the mediterranean region, going deep into the the heart of Europe, evidenced by the strange similarity of their folkloric recipes to those of the ancient Egyptians, thus showing how much they owe to the Egyptian civilisation.

It must be pointed out that, a very great deal of the Greek medicine 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 Dioscorides book of herbs 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 Ebers papyrus contains 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.

The Kahun medical papyrus speaks of the different diseases of women as being due to morbid states, or wanderings of the uterus; exactly the same statement is found in the Hippocratic work "*de morbis mulierum*", 2nd book.

At the beginning of Edwin Smith papyrus, various injuries to the skull are described, quite systematically arranged: first, the superficial wounds and then successively the deeper-going wounds. This recalls the description in the Hippocratic writing "*de capitis vulneribus*".

According to Ebers papyrus, prescriptions 36-43, affections of "mouth of the stomach", may be accompanied by diseases in different organs. Herewith may be compared Alexander Trallianus' statement VII, chapter 1; .."that when the mouth of the stomach is ill, it becomes a source of many ailments, bringing about epilepsy, cramps ..etc.". The surgical section in Ebers papyrus (106-110), treating 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.

Indeed, even the ancient doctrine of the disease-producing humours as the cause of different diseases, as concerning the Phlegm theory, shows that it has come from Egypt. (Ebers

papyrue 25 and the Hippocratic work "de glandulis", chapter 14).

So the Greek medicine has taken over very much from the Egyptian medicine and can only be looked upon as a further development of the latter. The best evidence of the high value of the Egyptian remedies, is the fact that, they have been able to hold their ground during thousands of years; a great many of them are found in the works of Dioscorides, Hippocrates, Galen ...etc., and from them, they have been handed down to later times.

So Egypt and not Greece must be considered the original home of the medical art, and 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, that is Imhotep.

This immortal Egyptian civilisation shows a wonderful type of specialisation in pharmaceutical and medical professions, and also, in medical scientific writing together with and advanced surgical art. Thanks to these medical papyri which were preserved for the present generations which were copied by all the neighbouring countries thousands of years ago and went very deep in their culture specially the Greeks and mid of Europe, and so became a part of their folk-traditional curative formulae thus proving the great influence of the ancient Egyptian medical civilisation on the whole of the civilised world.

## REFERENCES

- 1-The Technical Sciences of the Ancients; by Albert Newsberger (1930).
- 2-The Divine Origin of the Herbalists; by Budge.
- 3-The Edwin Smith Surgical Papyrus; by Breasted (1940).
- 4-The Four Thousand Years of Pharmacy; by Charles H. Lawall.
- 5-Un Papyrus Medical Copte; by E. Chassinat.
- 6-W. R. Dawson.
- 7-The Papyrus Ebers; by Ebfell.
- 8-Egyptian Mumies; by Eliot Smith.
- 9-Lectures in the History of Medicine; by Georgy Sobhy.
- 10-Lectures in the Book of Simple Drugs; by Georgy Sobhy.
- 11-Die Garten Pflanzen im Alten Aegypten; by L. Keimer (1924).
- 12-All Medical Papyrus; by Wreszinski.
- 13-Die Flora das Juden, 5 vols.; by Law (1924).
- 14-Ancient Egyptian Materials and Industries; by Lucas (1948).
- 15-The Ancient Botany; by P. E. Newberry.
- 16-Origins and Development of Applied Chemistry; by Partington.
- 17-The Greek Herbal of Dioscorides; by Robert T. Gunther.
- 18-De La Flora Pharmaceutique; by Schwein Fusth (1882).
- 19-Les Vegetaux Antiques; by Victor Loret.
- 20-Chronicles of Pharmacy, 2 vols.; by Wooten.
- 21-A History of Medicine; by A. Castiglioni (1947).
- 22-Drugs of Ancient Egypt; by Saber Gabra (1951).

सारांश

## प्राचीन मिस्री चिकित्सापरक पैपिरी

—समीर याह्या अल - घमाल

गत सौ वर्षों के दौरान मिस्रियों की प्राचीनतम सभ्यता के विषय में अनेक बहुमूल्य चिकित्सापरक पैपिरियों का पता लगाया गया है। यह अमर मिस्री चिकित्सापरक सभ्यता एक सुविकसित शल्य चिकित्सकीय कला सहित चिकित्साविज्ञानीय लेखन एवं औषध-निर्माण तथा चिकित्सकीय व्यवसायों में प्राप्त एक अद्भुत प्रकार की विशेषता की द्योतक है। इन पैपिरियों के अध्ययन से यह स्पष्ट होता है कि औषधीय वनस्पतियों के गुण-धर्मों के ज्ञान सहित औषध-निर्माण कला का ज्ञान शरीर-रचना तथा शल्य चिकित्सा के ज्ञान से पहले से था। इन पैपिरियों को उपरोक्त प्राचीन कालीन भेषज-संहितायें माना जाता है।

