

Imhotep: The Dean among the Ancient Egyptian Physicians - An example of a complete physician

By Carlos G. Musso, Nephrology Dept., Hospital Italiano de Buenos Aires, Argentina

Originally appeared in *Humane Medicine* Volume 5, Number 1, 2005

The very roots of Western medicine began in Ancient Egypt about 5000 years ago. Egyptian medicine was a mixture of magic explanations, acute observation and great empirical knowledge.

All the information we have regarding Egyptian medicine comes from their medical instruments, art pieces and at least seven medical papyruses that have been discovered. Thanks to all these sources of information we have learned interesting things about their medicine. I have chosen the following features with the intention of giving as clear an idea as possible of their medicine.

The Egyptian medical pathophysiology conceived of the human body as a system of ducts which drove the air and biological fluids from the lungs and the digestive tract to the whole body. Since the Nile and its channels were vital for the Egyptian economy, some authors believe that the Egyptians made a parallel between their sacred river and human physiology. From this interpretation they explained disease as a consequence of an alteration in the vital body flow. They believed that the obstruction of this flow was generated by evil gods, which led to the use of spells and magic formulas crucial to attract good gods and their help.

Magic was so relevant that healing amulets played an important role in treatments, especially one called the Eye of Horus (Figure 1). An Egyptian legend said that there had been a fight between Seth and Horus because Seth had killed Horus' father (Osiris). In this combat Seth had damaged Horus' eyes. But the wise god Toth healed Horus' eyes and then he used one of the cured eyes to revive Osiris. Since that time, the eye of Horus became a powerful healing amulet. So important was its influence over the time that even today the symbol, which is at the beginning of our medical prescriptions (Rp) (Figure 2), takes after the shape of the eye of Horus.

Egyptian doctors described what we currently know as "medical semiology," since to them an organized physical examination was central for medical work. They used as we do medical maneuvers such as inspection, palpation and auscultation in order to obtain information from the patient's body. Although they did not conceive our current concepts of disease, they used the concept of syndromes, i.e. a group of signs and symptoms that delineate a recognizable pattern. They also identified some signs as markers of severe physical compromise, such as trismus, neck stiffness, weak pulse, etc.

They mastered human anatomy and they were very skilled applying bandages and using sutures. It is supposed that they had obtained all this knowledge through the practice of mummification. Egyptians did mummification because they thought that after death the soul could return to life. But in order to be able to revive, it had to recognize its body and occupy it. This belief made mummification crucial in order to get the "life after life." The word which they used to design

mummification was “srh,” the same term that they used to name a treatment. The reason for that was that they thought that mummification was in fact a body treatment for “the other life.”

Since they had understood the central role of some organs such as the heart and the kidney, in the mummification process they did not remove these organs which they considered vital for re-incarnation. Because these organs were considered so vital, if they were damaged before mummification or during this procedure they had to be replaced by a beetle-shaped amulet. Since this object was supposed to replace magically the absent organ, we can consider this as the first attempt “to replace a vital human organ by an artificial device.”

Regarding medical treatment they knew the properties of many plants for curative purposes. Even more, they developed a discipline related to the management of these substances called “chem.” From this word later derived the terms chemistry and alchemy. The Egyptian physicians were pioneers in describing tracheotomy to resolve high respiratory obstructions, cauterization to avoid excessive bleeding while operating, and drainage to cure purulent collections.

But, perhaps the most important aspect of the ancient Egyptian medicine was the style of their physicians of whom Imhotep was the greatest example (Figure 3). Imhotep was an outstanding-man since he was not only a great physician but also a poet, a priest, a judge, prime minister (visir) of the Pharaoh Zoser and even the architect who drew the pyramid of Saqqara (Figure 4). Many authors think that if the Alexandria Library had not been burnt down, Imhotep’s books would have been preserved and he would have been considered, together with Hippocrates, one of the fathers of modern medicine. He was so good that after his death people considered him a healing god and his temples functioned as a sort of hospital.

Although Imhotep was surely an exceptional physician, he also represented the medical style of those times. Egyptian doctors did not limit their knowledge to medicine. Specialization was common, but doctors did not stick to only one; they usually mastered more than one specialty and they also learned other subjects. It is usually said that they could acquire all this knowledge because medical knowledge was very limited in those times in comparison to the current one. However, this is not entirely true because in those times, to be a good doctor implied to know about astronomy, philosophy and all their gods and goddesses together with their specific rituals and magic formulas.

This habit of being in touch with many disciplines was a great opportunity to get ideas or concepts outside the medical field, which could enrich it. The blend of information coming from diverse fields of knowledge is a very useful thing that can give us new concepts or ideas which may lead us to solutions to yet unsolved matters in the medical field. A scientist mastering many fields of knowledge can play an important role by blending everything he/she knows in order to achieve a breakthrough concept, as Leonardo Da Vinci did enriching painting discipline by applying concepts taken from non artistic fields such as geology, biology and engineering.

Ancient Egyptian medicine was taken by the Greeks who purified it from its magic concepts. After that it was spread by the Helenism. The Arabs inherited and enriched this medical knowledge that from the Muslim Spain reached the rest of Europe. Europeans took this medical treasure and turned it into our modern medicine. It was 7000 years after the Egyptian medical

knowledge reached us, and when we read about it we realize that our medical practice is a bit Egyptian even when we are not fully aware of it. Maybe it is high time we emulate them and enrich ourselves from other fields of knowledge, broadening our horizons in order to take medicine beyond its present boundaries.



Figure 1: The Eye of Horus amulet

Dr. Carlos Guido Massa
MÉDICO
M. N. 64598

Rp/

Figure 2: A modern medical prescription with the symbol (Rp)



Figure 3: The Egyptian physician Imhotep



Figure 4: Pyramid of Saqqara

References

- 1) Lambert T. "Dictionary of Gods and Myths from the Ancient Egypt." Barcelona. Editorial Oceano. 2004: 6-261.
- 2) Elorza J, Jauregui J. "The Ancient Egypt." In Elorza J, Jauregui J (Eds). The Creator Man». Bilbao. Editorial Fher. 1974: 27-40.
- 3) Bender GA. "Medicine in the Ancient Egypt." In Bender (Ed). Great Moments of the Medicine». Detroit.1961: 3-9.
- 4) Williams AR.. "The treasures of Egypt." In Albores L (Ed). National Geographic -en español-Méjico.2004: 87-103.
- 5) Lluís A. "Life in the Ancient Egypt." In Moreno JC (Ed). Arqueo. Barcelona. RBA Revistas S.A.2003: 76-89.
- 6) Quoniam P. "The Louvre." In Edition des la Reunion des Musée Nationaux. Paris. 1983: 15-22.
- 7) Lise G. "How to recognize the Egyptian Art." Barcelona. Editorial Médica y Técnica S.A. 1978: 3-54.
- 8) Bladé R, Freyre V. "Egypt." In Margarit I (Ed).Life and History». Barcelona. Mundo Revistas SA. 2003: 31-61.
- 9) Vivó J. "Tutankhamon" In González L (Ed). Barcelona. National Geographic-en español-2004: 39-51.
- 10) Tovar A. "Egypt." In Tovar A (Ed). History of the Ancient East». Barcelona. Montaner y Simon SA. 1978: 44-84.
- 11) Bladé R, Covadonga S. "Ramses II." In Margarit I (Ed).Life and History». Barcelona. Mundo Revistas SA. 2003: 33-59.
- 12) Müller IW, Roelcke V, Wolf-Braun B, Shadewaldt H. "Chronic of Medicine." Barcelona. Publitecnica.1994:18-29.
- 13) Ghalioungui P. "The Medicine in the Pharaonic Egypt." In Lain Entralgo P (Ed).Universal History of Medicine». Barcelona. Salvat. 1972: 95-124.
- 14) Lyons, Petrucelli. "Ancient Egypt." In History of medicine. Barcelona. Argus:77-94.

Acknowledgements:

I would like to acknowledge Dr Megid El-Nahas and Dr Dimitrios G. Orepoulos for revising this article.