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Published: December 15, 2003
Last Updated: June 7, 2013

HEALTH IN PERSIA I. PRE-ISLAMIC PERIOD

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i. PRE-ISLAMIC PERIOD

Health and medicine are clearly defined in Pahlavi literature in the philosophical and moral tradition already taught by the fifth-century B.C.E. Greek "father of medicine," Hippocrates (*Nature and Man*, pp. 11-13; see Gignoux, 2001, p. 40), and after him by Aristotle, who, using the same distinction to define virtue and vice, wrote that "excess and deficiency are a sign of vice, and the observance of measure a sign of virtue" (*The Nicomachean Ethics* 2.4, 13-14; tr. p. 95). Thus, for the Pahlavi scholars, too, health is a result of the "right" measure (Mid. Pers. *paymān*, cf. Gignoux, 2000) of the elements of humor, while sickness is defined by their excess or deficiency (Mid. Pers. *frehbūd*, *abēbūd)*. Medicine thus consists of re-establishing balance, and according to *Dēnkard* III (ed. Madan, p. 160, ll. 4-7), the medicine of the body is closely linked with that of the soul: "The medicine of the body consists in keeping the body in good health and in curing the body of sickness, and in like manner the medicine of the soul in preserving the soul from sin and in curing it." So the physician worthy of this name is "the one who cures in each man the soul of its sins and the body of its sickness" (Gignoux, 2001, p. 47).

In the Avesta (*Vendidad* 7.44) there exist three kinds of medicine: through the

knife (Av. *kareta-*), through plants (Av. *urvara-*), and through the sacred word (Av. *Mānθra–*. According to *Yašt* 3.6, the third one is the best. Indeed, just as in Vedic India, Mantric medicine is the most important one, and sickness is the result of the act of supernatural forces, particularly those of demons. That is the reason, as Zādspram remarks (3.38), that there are ten thousand species of medicinal plants created by Ohrmazd for the prevention of ten thousand sicknesses created by Ahriman. The best of these plants is the *haoma* (Vedic *soma*), which is the greatest of medicinal plants. The general term defining these is *bēšāz*, from the same root as Av. *baēšāza-*, the nominal derivative of *bšaz-*, which is the general notion of "healing, medical treatment," and which has an exact parallel in Old Indian *bhe-ṣaja-*. Nevertheless Emmerick (1993, p. 91) thinks that "there is neither Indo-European nor Indo-Iranian nosological terminology that would enable us to infer the existence of even rudimentary scientific medical doctrine in Indo-European or even Indo-Iranian times."

The Mazdean physician had to exercise his practice on non-Mazdeans, but if he failed with three persons and they died, he would not be allowed to treat a Mazdean; on the other hand, if he cured three worshippers of the false gods (*daēvas*), he could become a physician for life (*Vendidad* 7.36-40). The text further informs us about the fees of the physician. The last three chapters (*fargard*s) of the *Vendidad* (20-22) are devoted to medicine: the father of Kerešāspa, Θrita, became the first healer by obtaining remedies from Xšaθra Vairiia. But it was Ahura Mazdā who provided thousands of medicinal plants, one for each illness. These grow on the tree which is in the middle of the Vourukaša sea and which is said to be called "having all remedies," since on it have been placed the seeds of all plants (cf. *Yt.* 14.29). *Vendidad* 20 mentions numerous names of thus far unidentified maladies. According to *Vendidad* 22, Ahriman created 99,999 maladies. These Avestic data are, however, rather weak and essentially of a mythological nature.

From the days of the Achaemenids to the Sasanian period, Greek medicine substantially penetrated into Iran, no doubt due to Greek physicians whom the Persian kings brought to their court. Democedes of Cretone was the personal physician of Darius the Great and cured him of a sprain which the Egyptian physicians had not been able to heal (Herodotus 3.129-31). Appolonides of Chos served Xerxes and Artaxerxes I. Ctesias (q.v.) of Cnidos and Polycritos of Mendes looked after Artaxerxes II (Huyse, 1990). Under the Sasanian king Ḵosrow I Anōširvān (r. 531-79), the famous Burzōy traveled to India to study medicine (De Blois, 1990).

Fortunately, Sasanian sources provide a more consistent topic on the Iranian medicine of their time. The summary of the *Huspāram nask* in *Dēnkard* VII (ed. Madan, pp. 750-51) only mentions the titles of chapters dealing with the fees of the physician, his qualities, his competence, which had to be checked, and the sin of referring to a foreign physician when an Iranian one was at hand. The following Mid. Pers. texts deal more specifically with medicine: *Bundahišn,* chaps. 15 and 28; *Dēnkard* III, chap. 157; and *Wizīdagīhā ī Zādspram*, chaps. 29-31.

Chapter 15 of the *Bundahišn* concerns human procreation, especially the union of masculine and feminine sperms and their different properties, as well as the time of gestation of a woman as compared with that of animals such as a donkey, horse, fox, weasel, rat, etc. There follows an explanation of the transformation of semen among these different species of animals. Chapter 28 merely provides some anatomical data; the author compares lists in seven terms, among them those of the seven parts of the head (two ears, two eyes, two nostrils, and the mouth) and seven important organs (liver, lungs, gall-bladder, heart, intestines, spleen, and kidneys).

The great interest of chapter 157 of *Dēnkard* III as a kind of philosophical treatise on medicine has long been recognized (Casartelli, 1886; de Menasce, 1973). Its main points are as follows: (1) Medicine is connected with cosmogony, for we distinguish a medicine *mēnōg* relating to the soul, and a medicine *gētīg* which is that of the body, serving to preserve the cosmic elements (water, fire, earth, air) which compose it. (2) There are six kinds of medicine: by justice (*ahlāyīh*, equivalent to the Av. *dāta-* ?), by fire (*ātaxš)*, i.e., cauterization, by plants (*urvar*), by the knife (*kārd*), by the needle (*nēšag* < Pers. *nīš*), which is perhaps acupuncture, and by the *mānθras*, but here as in the Younger Avesta, the latter method is the principal one. (3) Next, the qualifications required for the physician of the soul and that of the body are defined. (4) The experimentation of the physician on a non-Mazdean is just as we have seen in *Vendidad* 7.5. The physician has the duty to visit all the villagers, and in return they have to provide him with food, clothes, a mount, and even a dwelling place. (6) Health is defined as “measure” and sickness as “excess and fault.” (7) Medicinal plants are as numerous as diseases. (8) An elaborate discourse is given on the theory of the contraries hot-and-cold, dry-and-moist (cf. Gignoux, 2001, pp. 123-24). (9) The two sorts of medicine are complementary of each another; while that of the body concerns the four elements, that of the soul deals with the four forces of the soul (*cahār zōrān ī*

gyān; Gignoux, 2001, p. 26).

The *Wizīdagīhā ī Zādspram* gives a far better account of human anatomy and physiology than that in *Dēnkard* III, although it is by no means as systematic as is the Greek medicine, on which it is clearly based, by way of Syriac transmitters. In addition, Iranian medical theories are adapted to the Mazdean philosophy and religion, which they are not allowed to oppose. Zādspram is well acquainted with the existence of the four humors and their properties. Blood is hot and humid, red and sweet, and has its place in the liver; phlegm is cold and humid, white and salty, and is in the lungs; red bile is hot and dry, red and bitter, and has its seat in the gall-bladder; and black bile is cold and dry, black and sour, and has its place in the spleen. Our late author (9th century C.E.) recognizes three main organs—the brain or the marrow as an organ of reproduction, the heart as an organ of breathing, and the liver for blood circulation; but, as with Syriac authors, all this is merely indicated in an allusive, rather than descriptive, manner. Zādspram mentions the four forces which serve for digestion, and the terms he uses for their names are clearly translated from Syriac: the force which attracts (Mid. Pers. *āhanjāg* = Syr. *nwp'*), the force which takes (Mid. Pers. *gīrāg* = Syr. *'ḥwd'*), the force which digests (Mid. Pers. *gugārāg* = Syr. *pšwr'*) and the force which expels (Mid. Pers. *spōzāg* = Syr. *dḥwy'*). (This division into four parts, according to Greek and Syriac sources, is not limited just to digestion.) Zādspram is also interested in the physiology of reproduction. The seed is placed in the brain, runs down through the veins of the back, and the development of the embryo takes place by the force of the *frawahr* (see FRAVAŠI*)*, the vital soul (Mid Pers. *gyān*) appearing on the fourth month in the shape of a body and producing vision because it is luminous. But this account is far from clear, and P. Sohn seems to have attempted to systematize a method which is far removed from modern medicine (Gignoux, 1998). The author opts for the images linking medical data to the Mazdean religion: the fire residing in the head, the heart, and the stomach is compared with the three great Sasanian Fires (Ādur Burzēn Mihr, Ādur Farnbāg, and Ādur Gušnasp), and can also explain a dream when it is compared with the guardian of the fire temple. Zādspram knew the theory of the micro-macrocosm to explain human nature in its seven corporal elements (marrow, bones, flesh, nerves, veins, skin, hair), and in its relation to the seven astrological bodies.

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