

History of Medicine

AVICENNA*

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'How I wish I could know who I am
What it is in the world that I seek.'

The above lines were written by a physician in search of his soul. The physician in question was one of the most brilliant and influential of all time, and in addition, he was a renowned philosopher.

Avicenna is still referred to as 'al-Sheich al-ra'is' (the Master) in the Arab world. With him Islamic medicine reached its zenith upon which it still looks back with justifiable pride.

Avicenna was born Abu 'Alī al-Husain ibn 'Abd-Allāh ibn 'Alī ibn Sīnā in August 980 in a Persian village called Kharmāithan (the land of the Sun). He studied the *Qur'ān* at an early age and excelled in the study of religious law and disputation. His interest in medicine was aroused when he was 16, and after having read all the available literature in the field, he came to the conclusion that medicine was 'not a difficult science'.

At that time, when the Dark Ages at their bleakest still hung over Europe, the intellectual disciplines had become so numerous and widely cultivated in the Muslim world that they had to be classified into two broad categories: The Arabic, or native sciences (*al-'ulūm al-naqliyyah aw al-shar'iyyah*), and the intellectual or philosophical sciences (*al-'ulūm al-'aqliyyah aw al-hikmiyyah*) which had been introduced into Arabic through translation, principally from Greek. Before Avicenna decided to embark on a medical career, Hunayn ibn Iṣḥāq (809-77), who had been put in charge of a bureau of translation established by the 'Abbāsīd caliph al-Ma'mūn, had already translated the entire corpus of Galenic writings which ran to some 140 books; he had also translated the works of Hippocrates with corrections; the *materia medica* of Dioscurides; the *Synopsis* of Orabasius, and the *Seven Books* of Paul of Aegina. Hunayn himself wrote *Ten Treatises on the Eye* which is the earliest systematic treatise of ophthalmology known.

The greatest original contributor to Arab medicine was al-Rāzī, or Rhazes (died 925). Smallpox, a disease unknown to Greek medicine, is described in Rāzī's *On Smallpox and Measles*. Among his other tractates are those entitled 'On the fact that even skilled physicians cannot heal all diseases', and 'On why people prefer quacks and charlatans to skilled physicians'. The *Gray's Anatomy* of this period consists of Rhazes's tractates called *pandects* which are recapitulations of the whole of medicine beginning at the head and working down to the feet. His magnum opus, *al-Hāwī* ('*The Comprehensive*'), is a compendium of Greek, Syriac and Arabic achievements, and is thus virtually a medical encyclopaedia.

When Avicenna was a young man and already well-read in the Arab medical literature described above, he moved

to the town of Hamadhān where he was employed by an influential lady 'in order to investigate her finances'. He entered politics and thus became acquainted with the ruler, whom he later successfully treated for an attack of colic. He left the service of the ruler 'laden with many costly robes and having passed forty days and nights at the palace and became one of the Amir's intimates'. In a war against the Kurds, he accompanied the prince as his personal physician, and was subsequently appointed vizier.

At Hamadhān Avicenna completed *al-Adwiyāt al-Qalbiyya* ('*The Cardiac Remedies*'), began work on the physical section of his *Kitāb al-Shifā* ('*Book of Healing*'), and finished the first book of his *Qānūn fī'l-Tibb* ('*Canon of Medicine*'). His constant companion Jūzjānī describes Avicenna's uniquely progressive method of medical education: A circle of study for his pupils would be held every night at his home. 'I would read the *Shifā* and another in turn the *Qānūn*. When each of us had finished our allocated portion, musicians of all sorts would be called in and cups brought out for drinking, and in this manner we spent the rest of the time. Studying was done by night because during the day attendance upon the Amir left him no spare time.'

When Avicenna fell out of favour he was thrown in jail, where he proceeded to compose *Kitāb al-Qulanj* ('*The Book of Colic*'). After he had been released, he himself suffered an attack of colic.

By injecting himself 8 times his intestines became ulcerated, and then 'the epilepsy which sometimes follows colic manifested itself'. One of the physicians attending him injected him with an overdose of celery seed which aggravated his abrasions. Jūzjānī continues the sad tale thus: 'He took mithridatum for the epilepsy; but one of his slaves went and threw in a great quantity of opium', which caused his death in 1037.

The monumental '*Canon of Medicine*' Avicenna left behind is thought to have been used as the standard textbook in the medical school of Louvain University as late as the 18th century. It, together with the *Ad Al-mansorem* of al-Rāzī, was also the backbone of the medical faculties of the Universities of Vienna and Frankfurt on the Oder. The *Qānūn* contains about a million words concerning the distinction of mediastinitis from pleurisy; the contagious nature of phthisis; the distinction of diseases by water and soil; classification of 15 kinds of pains; careful description of skin ailments; sexual diseases and perversions; nervous ailments (including love sickness); the advisability of medical experiments on animals; the antiseptic effects of ethanol (he suggests that wounds should be washed in wine before treatment); and the discrediting of alchemy. In the *materia medica* of the *Qānūn* pharmacological methods are outlined and approximately 760 drugs are listed.

The *Qānūn's* author evinced a fundamental dissatisfaction with his lot. Although physically handsome, of im-

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pressive figure and mentally industrious and polymathically talented, Avicenna was deeply unhappy. His maladjustment manifested itself in his constant restlessness, excessive passions, and a violent temper. He dismissed al-Rāzī's philosophy as the lucubrations of a man who should have stuck 'to testing stools and urine'. His preference for numerous mistresses to the conjugal life and his ostentatious enjoyment of music and wine enraged the public. In fact, Avicenna the immortal philosopher and physician appeared to find satisfaction in completely disregarding what the public said and thought of him. It must have been at an intensely introspective moment

when his proud genius reverted to the Persian of his childhood and penned the quatrain:

'How I wish I could know who I am
What it is in the world that I seek.'

BIBLIOGRAPHY

- Achena, M. and Massé, H. (1955): *Le Livre de Science*. Paris.
 Afnan, S. M. (1958): *Avicenna, His Life and Works*. New York: Macmillan.
 Chejne, A. G. (1969): *The Arabic Language—its Role in History*, chapt. 4, pp. 52 - 84. Minneapolis: University of Minnesota Press.
Encyclopaedia Britannica (1966), pp. 915 - 916.
 Sarton, G. (1927): *Introduction to the History of Science*, vol. I, pp. 693 - 737. Washington, DC: Carnegie Institution.
 Yafeh, H. L. (1967): *Studies in the History of the Arabs and Islam*, chapt. 14, pp. 345 - 376. Tel. Aviv: Reshafim Publishing House.