

Medicine in Stamps

Avicenna (980-1037): Prince of Physicians

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Even as monks, quacks, barbers, and blood-letters littered the medical landscape of Europe's Dark Ages, Islam strove to restore the intellect of the past and inject fresh inspiration. Two men stood out as medical leaders of this period. Rhazes was the first, with his voluminous writings and clinical prowess. But the more famous of the two was Avicenna, whose legacy was the *Canon of Medicine*, a book destined to influence medicine for the next 600 years.

A Child Prodigy: The son of a prominent government official, Avicenna, whose full name was Abu Ali Husain ibn Abdullah ibn Sina, was born in Bokhara, Persia (now Iran) in the year 980, some 55 years after Rhazes' death. He was a child prodigy who had memorised the Koran by age ten and then went on to master mathematics, astronomy, theology, jurisprudence, philosophy, and medicine. The teenager achieved full status as a physician at age 18 and found that: "Medicine is no hard and thorny science, like mathematics and metaphysics, so I soon made great progress; I became an excellent doctor, and began to treat patients, using approved remedies . . ."



The youthful physician's fame spread quickly and he treated many patients without regard for payment. He cured a king of a serious illness, and much to his delight, was rewarded with free access to the royal archives. Unfortunately, the library was later destroyed by fire and Avicenna, accused of arson, was forced to flee. His was a career that took him up princely heights (he cured the emir, Sham ud-Daula, of colic and was made prime minister) and down pauper's lane (he narrowly escaped imprisonment on several occasions).

A Louse and a Cow: For all his reputed brilliance, Avicenna blindly accepted many absurd practices of

his day. For example, he condoned the insertion of a louse into the urethral meatus to treat urinary retention. He took a special interest in venereal diseases and placed special catheters into the penile urethra as therapy. These catheters, made from the skin of various animals, were reputed to be particularly effective.

An unlikely tale concerning the cure of a psychiatric patient is often attributed to Avicenna. A man who believed himself to be a cow asked to be sacrificed. Approaching the patient, Avicenna exclaimed that he should indeed be sent to the slaughter house. When the happy patient moaned loudly in agreement, Avicenna quickly proclaimed that the cow was too thin and had to be fattened before slaughter. His aides fed the patient, and as the man regained his health, he soon fell out of his melancholia and was cured of his delusion.

The Canon of Medicine: Avicenna claimed Islam's highest medical honour for his encyclopedic work, the *Canon of Medicine*, a one-million word summation of Graeco-Arabian medicine that incorporated his own clinical observations together with all the medical teachings of Hippocrates and Galen. This undisputed *piece de resistance* offered up by the Arabic world to Western medicine was of unsurpassed scholarship and dogma, and rivalled Rhazes' *Continens* in both scope and authority. In classical Aristotelian dialectic, Avicenna systematically and laboriously catalogued all that was known about the mysteries of the healing art. Following its translation into Greek, Latin, and Hebrew, the *Canon* became the premier medical text in all of Europe's medical schools beginning with the first school at Salerno, Italy.

The *Canon* is divided into five books, and these are in turn subdivided. A typical medical school curriculum covered all five books that were taught in the order written. Medical therapeutics was featured

prominently in these books, the Arabs being the first to establish privately-owned pharmacies in the 8th century. Some 760 drugs were codified in the *Canon*. Below is a simplified version of its contents:

Book I:

- Part 1. The Institutes of Medicine: Definition of Medicine, its task, its relation to philosophy. The elements, juices, and temperaments. The organs and their functions.
- Part 2. Causes and Symptoms of Disease
- Part 3. General Dietetics and Prophylaxis
- Part 4. General Therapeutics

Book II:

On the simple medicaments and their isolated action.

Book III:

The diseases of the brain, the eye, the ear, the throat and mouth cavity, the respiratory organs, the heart, the breast glands, the stomach, the liver, the spleen, the intestines, the kidneys, the sex organs.

Book IV:

- Part 1. On Fevers
- Part 2. Symptomatology and Prognosis
- Part 3. On Sediments
- Part 4. On Wounds
- Part 5. On Dislocations
- Part 6. On Poisons and Cosmetics

Book V:

On the Compounding of Medicines.

Notwithstanding its influence, the *Canon* betrayed two major faults. First, it attempted to fit all medical phenomena into the systematic symmetry of mathematics – a reflection of Avicenna's romance with Aristotle. Metaphysics had always fascinated the child prodigy, although he had found it difficult, and confessed that mastery came only after 40 readings. And second, the *Canon* lacked the scientific basis of disease. Avicenna relied on logic rather than experimentation and dissection, which was forbidden under Islamic law at that time.

The *Canon* was Galen's dream come true, for a substantial part of the book was a reaffirmation of Galenic teachings, both fact and fiction. However, in siding with Galen, Avicenna perpetuated Galen's false dogmas, thereby unwittingly misleading physicians for an additional 600 years.

Whatever one might say about the *Canon's* limitations, a single author had accomplished the unimaginable – capturing, in one fell swoop, the sum and substance of fifteen hundred years of medical thoughts. Leclerc calls Avicenna an “intellectual phenomenon,” adding that “Never perhaps has an example been seen of so precocious, quick, and wide an intellect extending and exerting itself with so strange and indefatigable an industry.” The *Canon* remains to this day the most influential medical book ever written.

Wine, Women, and Song: As extraordinary as this task of completing a 20-volume medical encyclopedia was, it constituted a mere event in Avicenna's full and hectic life. He taught and wrote even as he delighted in the concupiscence of the flesh. Night was indistinguishable from day, history recording these revealing words: “When at length I fell asleep, I was still so full of my studies, that often on waking, I found that problems which had perplexed me had been solved during slumber.”

The prodigy of Arabia indulged in frivolity as much as he cultivated scholarship: “The night was always young to Avicenna, and when manuscripts were put aside, the wine-jug was seldom empty, and he relaxed amid minstrels and dancing girls. His sensualism was as famous as his scholarship, and all Islam asked: Which does Ibn Sina love the more – learning, or wine and women?”

Temperance was not Avicenna's virtue, nor idleness within his character. He was as intense at play as he was at work, and his pursuits eventually took their toll. As he became ill, he became more impatient. The philosopher-author medicated himself with enemas eight times each day until he developed ulcers, colic, and seizures. With the loss of his strength, he found no joy in clinging on, and abandoned further treatment. His enemies lamented that “his medicine could not save his life, and his metaphysics could not save his soul.” Depleted and exhausted at the young age of 58, Avicenna, Persia's remarkable prince of physicians, died a victim of his own precociousness. His body lies buried in a brickwork tomb in Hamadan, Iran.

REFERENCES

Materials for this essay were excerpted or adapted from the following sources: The History of Medicine by Victor Robinson, 1943; The Great Doctors by Henry E. Sigerist, 1958; Medical Teaching in Western Civilization by William B. Wartman, 1961; A History of Medicine by Lois N. Magner, 1992.