

GLIMPSES OF ISLAMIC MEDICINE.

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ABSTRACT

The fall of the Roman Empire during the fifth century A.D. ushered in the beginning of the Dark Ages. After this, in Europe further progress of Greco-Roman medicine originated from Hippocrates was halted. The ideas about medicine and hygiene were kept alive in monasteries only. The Arabs made advances in medicine at a time when the rest of Europe was in the Dark Ages. Islamic system or the rulers of the day actively encouraged scholarship and growth of knowledge. The Islamic gift of the day to the world of medicine was simply unique.

The fall of the Roman Empire (700 B.C. - 400 A.D.) During the 5th century A.D. ushered in the beginning of the Dark Ages (400 - 1000 A.D.). In Europe, for centuries after this, further progress of Graeco-Roman medicine originating from Hippocrates (460-357 B.C.) - the Father of Modern Medicine - was halted. Very little learning went on in Europe because most of the books were scattered or destroyed. This made it difficult for people to study like medicine. Faith and belief in magic became popular again, as they had been before the Roman period. The church had a great influence on ideas and scholasticism was introduced. It taught that disease was a punishment from God and that the only way to be cured was to pray to God. Martyred saints became patron saints of parts of the human body, depending on how they had been tortured. It was only in monasteries that ideas about medicine and hygiene were kept alive. Most of the important Greek books on medicine were unfortunately lost to scholars in Europe at this time. Copies of these books, however, survived in the Arab Empire of the day.

During the Dark Ages in Western Europe, learning lived on in the Arab schools and universities, such as those of Cordova (Moorish (711 - 1492 A.D.) Spain) and Syracuse (Sicily). *The Holy Koran* encouraged the study of medicine: "O servant of God, use medicine because God hath not created a pain without a remedy for it." So, the Arabs set up schools of medicine, as well as hospitals. This was partly due to the efforts of Nestorius (? - 451 A.D.), a Roman. He was a Syrian ecclesiastic (clergyman). Appointed patriarch of Constantinople in 428 A.D., he had differences of opinion about Mary being "the Mother of God" and was condemned by the Council of Ephesus in 431 A.D. and deposed. He fled to Jundi-Shapur in Persia (Iran). He took with him some scrolls of Greek writes such as Hippocrates and Galen (130 - 200 A.D.). Many more scrolls were later brought to Jundi-Shapur and translated into Arabic. Subsequently, the library was moved to Baghdad (capital of present Iraq), where a paper-making factory was set up in the 8th century A.D.

Of course, the first printing started in

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Western Europe in 1454 A.D. The Arabs built at least 30 hospitals in places like Baghdad, Cairo, Damascus and Cordova. The most important was at Cairo, where there were separate wards for men and women and for the treatment of different diseases. Students studied there under famous physicians. The Muslim Empire came to an end after the invasion of Baghdad in 1258 A.D.

The Leading Luminaries:

The Arab Empire spread across most of the Middle East and North Africa. The Arabs made advances in medicine at a time when the rest of Europe was in the Dark Ages. Four of the most famous Arab physicians were Rhazes (860 - 932 A.D.), Albucasis - Abul-Qasim Halaf (936 - 1013 A.D.), Avicenna - Ibn Sina (980 - 1037 A.D.) and Averroes - Ibn Rusd (1119 - 1198 A.D.).

Rhazes was a devoted and famous teacher. At Baghdad Hospital, he taught students to observe their patients' symptoms. He first pointed out the difference between smallpox and measles. He wrote over 150 books on medicine, one of which was an encyclopedia that weighed 10 kilograms. People from all over the Arab Empire came to attend his lectures. In turn, he travelled to North Africa, Egypt and India to gather knowledge about illnesses and how to cure them. All the money he earned, he gave away to the poor, and he died as a poor man.

Albucasis wrote books on both medicine and surgery, which included illustrations of many surgical instruments that were used at the time. He used cautery to cure more than fifty diseases. This was an iron bar that was heated and used to seal wounds and stop infections.

He revived surgery in the Arab world when it was an almost forgotten art. He was also a dentist and carried out operations to straighten ugly teeth.

Avicenna, another Persian physician, became a court doctor at the age of 18. In search of herbs and medicine, he travelled extensively. He was a famous teacher and also the physician at the Moorish Court of Cordova in Spain. He is the author of "*The Canon of Medicine*" which became the standard textbook on medicine for doctors for the next 400 years in the Middle Ages (1100 - 1500 A.D.).

Averroes was a physician, as well as a philosopher.

The Arabian Empire was where Chemists' shops or Apothecaries began. Doctors, as well as ordinary people, could buy herbs and medicinal plants collected from all over the Empire, including alcohol, cassia, senna, manna, arsenic and many more. The Arabs used to make pills palatable with rosewater and perfumes. The Chemists' Shops also had on sale the first plasters and ointments to be used.

The Synthesis:

The most important developments in medicine between the seventh and the eleventh centuries took place not in rural, thinly populated, and economically underdeveloped Christian Western Europe, but in the environment of the flourishing cities, developed commercial economies and lively intellectual milieu of the Muslim societies of the Middle East and the Iberian peninsula. The Muslim conquests that began in the first half of the seventh century were followed in the eighth and ninth centuries by assimilation of Greek philosophy and science into

an Islamic intellectual context. Among the Greek works translated into Arabic, often via an intermediary translation into Syriac, was much medical literature. By the ninth century, Arabic-speaking physicians had absorbed this material and begun to build on and add to it. In general, the authors of medical treatises in Arabic adopted and sometimes elaborated upon Greek philosopher and physiological systems. Where pathology and therapy were concerned, they made use of Greek materials, but quite frequently added observations of their own or recommendation for treatment that drew on botanical pharmacology of oriental or Iberian origin. A characteristic but certainly not the only form of Arabic medical writing was the composition of large encyclopedic works that surveyed all aspects of the subject.

Leading medical encyclopedists known to the West are Rhazes (ar-Razi, d. 925), Haly Abbas ('Ali b. Al-Abbas Al-Magusi, tenth century), Avicenna al-Husain b. 'Abdallah (Ibn Sina, d. 1037), Albucasis or Abulcasis (Abu'l-Qasim Halaf b. Abbas az-Zahrawi, d. after 1009), who wrote a large compendium on surgery, and of the medical writing of Averroes (Ibn Rusd, d. 1198). Haly Abbas, in the work known in the West in two different versions as the *Pantegni* and the *Liber Regius*, and Avicenna, in the *Canon*, both strove to present ordered synopses of the whole of medical knowledge, largely but not exclusively based on Galen's teaching. Rhazes, in the work known in the west as the *Almansor*, appeared less dogmatic and more clinically oriented; his work was basically empirical in its approach and contained much information collected from his own

experience. It was through these and other essentially encyclopedic or synoptic written works that Arabic medicine was to influence the medieval West. Practical aspects of Arabic medicine - for example, as regards clinical training and the development of hospitals - were of great importance within medieval Muslim society.

Although in the early Middle Ages both western Europe and the Muslim world received medical knowledge originating in Greek and Hellenistic antiquity, the extent of the material and the way it was used differed greatly between the two societies. The Arabic authors had access to many more works of Galen - in which there was a marked logical and philosophical component - as well as to much of the corpus of Greek philosophy, notably works of Aristotle (384 - 322 B.C.) unknown in the West before the twelfth century. As a result, the links between medicine and philosophy, already present in antiquity, persisted strongly among some Arabic writers. Avicenna and Averroes were philosophers of importance, as well as physicians, and their philosophical views affected their medical works. Avicenna's syncretistic tendency led him to attempt to harmonize Aristotle and Galen, despite the actual opposition of their views on important physiological issues. In his medical *COLLIGET*, by contrast, Averroes frequently adopted Aristotelian ideas and arguments. But their authors' philosophical orientation should not be allowed to obscure the fact that the Arabic medical writings were indeed medical; they were valued in Islam and later in the west for extensive and systematic accounts of disease, symptoms and

treatment, and for their collection of *materia medica*.

The Limitation:

Medicine in the traditional Near East on the eve of the rise of Islam in the early seventh century took account of little of the formal Hellenistic (323 - 30 B.C.) medical tradition represented by Galen and his school. The term "Hellenistic" is used conventionally to refer to the period from the death of Alexander the Great (356 - 323 B.C.) to the end of the Ptolemaic dynasty and the Roman annexation of Egypt (30 B.C.) Hellenism was in decline beginning in the fifth century (and possibly earlier), and comprised a cultural veneer which, while influential in the towns had little impact elsewhere. In practice, then, medicine was largely limited to the folkloric usage that had already prevailed for centuries.

The Islamic conquest in the early seventh century at first had no effect upon this situation, and it was largely due to non-medical considerations that formal medicine was eventually revived in the eighth and ninth centuries. The translation movement that marked early Abbasid culture was aimed primarily at supplying the intellectual tools needed to confront the challenges of Christianity and Manichaeism, and medical texts were translated and studied largely for the logical structures they illustrated and the arguments they offered in favour of a harmonious universe ordered and maintained by a single almighty and benevolent God. "Manichaeism" is the religion founded by Mani (216 - 276 A.D.) (Latinised as Manichaeus) who was born in Mesopotamia around 216 A.D. and proclaimed his creed in 241 at the Persian court. Its fundamental tenet was that the

material world is an invasion of the realm of light by the powers of darkness; particles of goodness imprisoned in matter were to be rescued by messengers such as Jesus of Nazareth (4 B.C. - 30 A.D.) and finally by Mani himself. Despite opposition from Zoroastrianism (600 or 1000 B.C.) and persecution, Manichaeism spread and flourished until the 10th century. The rendering of important-Greek texts into Arabic not only provided a corpus for study, but also endowed Arabic with a technical medical vocabulary and laid the foundations for the pursuit of original medical scholarship.

This original work began in the ninth century, the first writers being individuals who had already worked as translators. Physicians at first tended to be Christians and Jews, and there was also a tendency for the profession to concentrate within certain leading families. The medical writers usually had a strong philosophical background and, indeed, medicine and philosophy tended to be twin disciplines. The leading figures in this literature included such great scholars as al-Tabari, al-Razi (Rhazes), al-Majusi (Haly Abbas), and Ibn Sina (Avicenna). But while this material was always highly esteemed and extensively copied, it was limited in its immediate impact. It was known largely through a vast array of synopses, abridgements and commentaries, and in practice it was often displaced by practical manuals and guidebooks inspired by but not directly based on the formal literature.

For all its undoubted achievements, it cannot be said that the formal medical tradition made a significant difference in health and medical conditions in medieval Islamic times. The role of vermin and

insect pests remained unknown, sanitation was poor, diet was usually very limited, and most people lived in extreme poverty. Infections, broken bones and endemic and epidemic disease were the causes of great mortality, and life expectancy was low, men lived to about 35 - 45, women (probably due to deaths in childbirth) to 30 - 35; infants had less than a 30% chance of survival to adulthood.

The response of formal medicine to these problems was limited by several factors beyond its control. Formal medical literature could not displace folkloric and popular medicine in a society in which illiteracy was the norm. And as hospitals and physicians were in almost all cases limited to the towns, they were of marginal impact in a social milieu that was predominantly agrarian. Overall, however, these are the same problems that arise in the consideration of any pre-modern medical tradition, and in all such cases a clear distinction must be made

between the tradition as an intellectual discourse and body of theoretical knowledge, and its practical manifestation and impact in the society which generates it.

The Gift:

Ideas were not in the past and are not in the present confined within races, nations, tribes or geographical boundaries. They always diffuse in many directions. During the Dark Ages in Europe (400 - 1000 A.D.) The Arabic language was the cultural and lingual vehicle of conserving the Graeco-Roman medicine for posterity, with the intellectual and creative participation of a variety of scholars of the then Islamic world - Muslims, Jews and Christians of the Near East. Islamic system or the rulers of the day actively encouraged scholarship and growth of knowledge. The Islamic gift of the day to the world of medicine was simply unique.

सारांश

इस्लामी चिकित्साविज्ञान की झलकियां

- सिसिर के. मजुन्दार

पांचवीं शताब्दी ईसवीं में रोमन साम्राज्य की समाप्ति के बाद हिप्पोक्रेट्स द्वारा प्ररंभित ग्रीको-रोमन चिकित्सा पद्धति की यूरोप में प्रगति रुक गई थी। चिकित्सा एवं स्वास्थ्य विज्ञान से संबंधित विचार केवल गिरजाघरों तक ही सीमित होकर रहगये थे। जब यूरोप में अज्ञान काल चल रहा था, उस समय अरबों ने चिकित्सा विज्ञान के क्षेत्र में बहुत उन्नतियों को प्राप्त किया। इस्लामी प्रणाली एवं शासक चिकित्साविज्ञान की संवृद्धि की दिशा में तथा पांडित्य को प्रोत्साहन देने की ओर सदा सक्रिय रहे। चिकित्साजगत को इस्लामी उपहार के संबन्ध में इतना कहा जासकता है कि वह उपहार अद्वितीय था।