

BOOK REVIEWS

“*Avicenna’s Tract on Cardiac Drugs and Essays on Arab Cardiotherapy*”.

EDITED BY HAKEEM ABDUL HAMEED. (NEW DELHI AND KARACHI)
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This is an English translation of the *Risāla fi al-Adwiyat al-Qalbiyah*, a treatise on drugs for heart diseases written by Abū ‘Alī al-Ḥusayn ibn ‘Abdillāh bin Ḥasan bin ‘Alī commonly called Ibn Sinā in the East and known as Avicenna in the West (370/980 to 428/1037) along with twelve papers on Arab Cardiotherapy and other related subjects.

Among the treatises written by Avicenna the “Prince of Physicians”, on particular disease and their treatment, the one on drugs for cardiac disease is important. Its correct title is *Kitāb* or *Risāla fi al-Adwiyat al-Qalbiyah*. Written evidences are available to prove that it is a genuine work of Avicenna. Both Ibn al-Qifṭī and Ibn Abī Uṣaybi‘a mention it among his works. But the most reliable and unimpeachable evidence is that it has been mentioned by Avicenna himself in the 3rd Book of the *Qānūn* and that it was written at Hamadan before the latter was completed. Numerous MSS of this *Risāla* are found in the libraries and private collections all over the world which means that it was a popular and widely circulated treatise.

Correct Title

Ibn al-Qifṭī (d. 646/1248) and Ibn Abī Uṣaybi‘a (d. 668/1270) record the title as *Kitāb al-Adwiyat al-Qalbiyah*¹ and their statements are corroborated by the title found in the majority of its MSS. In some of them the word *Risāla* takes the place of *Kitāb*. This is also the title recorded in the 3rd Book of the *al-Qānūn* of Ibn Sinā.² However, C. Brockelmann has recorded its title as *Fi Aḥkām al-Adwiyat al-Qalbiyah*.³ Any how, it was written at the request of his patron Abu’l-Ḥusayn ‘Alī bin al-Ḥusayn al-Ḥusaynī for his library. It has been stated that there is another treatise *Risālat al-Qalbiyah*⁴ written by Avicenna.

The Printed Text Editions

This book does not give any information about the text from which it has been translated. There seems to be three printed texts of this treatise of which one is incomplete. Its first part, excluding the discussion on drugs was printed in the monthly *al-‘Irfān* of Sa‘īda (Syria) in the Rabī ‘al-Awwal issue of 1345 A.H. The full edition of this text was published by Kilisli Rifat Bilge at Istanbul in 1937.⁵ The Leningrad MS of the *al-Adwiyah* was published in fascimile at Tashkent in 1966 by the Uzbek Academy of Sciences along with an Uzbek translation by Hikmatullayev,

Its Translations

It was translated into Latin in the early 14th century by Arnaldo de Villanova (died 1310 or 1313 A.D.) under the title *Medicinis Cardialibus* and for the second time by Andreas Alpago in 1520 A.D. Its Turkish translation was published by Kilisli Rifat Bilge with its Arabic text at Istanbul in 1937.

It was at the suggestion of Dr. Zakir Husain, the late President of India, that Hakeem Abdul Latif, Principal, Tibbia College, Aligarh Muslim University, translated this treatise of Avicenna into Urdu and published it in 1956.⁶ In the same year, he also published his comments on this tract in a volume published at Calcutta.⁷ It was entitled "Introduction to Heart Drugs" which ran into ten pages. He stated "Avicenna's researches on Heart Drugs are most original and are still capable of revolutionizing our ideas on Heart Therapy".

Its Persian translation by Hakīm 'Abdullāh entitled *Tafriḥ al-Qulūb* has not yet been published but its MSS are found in the Libraries of Hyderabad.

After 1956, this treatise was forgotten. This reviewer had presented a detailed study of this tract entitled "Ibn Sīnā's Treatise on Cardiac Diseases and Their Treatment" at the International Seminar on Ibn Sīnā held at Kuala Lumpur, Malaysia from 29th June to 1st July, 1981. At the International Seminar on Ibn Sīnā's Millenary celebrations held by the CSIR from the 2nd to 5th November, 1981 at New Delhi, the paper presented by this reviewer was entitled "The Section on Cardiac Diseases and their Treatment" in the *Qānūn* of Ibn Sīnā" which will be published in one of the forthcoming issues of this *Journal*.

English Translation

Translating this Medico-Psychological treatise into English was not an easy task to perform. It cannot be claimed that the Urdu translation was perfect nor can this English translation be perfect in every respect. It is not easy to find the exactly equivalent English words for all the medical and psychological terms used in a work of Greco-Arab medicine written in the eleventh century. Take the word *Rūḥ* which will mean spirit, brain, psyche and soul according to the context as used by Avicenna. In the *Kulliyāt* of the *Qānūn*, he explains that there are three kinds of pneuma; *ar-Rūḥ at-Ṭab'ī* or natural pneuma—spirit in the liver; *ar-Rūḥ al Ḥayawānī* the animal pneuma in the heart and the *ar-Rūḥ an-Nafsānī* or psychical pneuma in the brain. Such examples can be multiplied. In most cases only approximate words can be found out and in several cases it would not be possible to find out the exact English word. To find out whether the translation is accurate or not, one has to compare it with the Arabic text published at Istanbul, but it would be a time-consuming and painstaking task. Moreover, a question may be asked as to how far the Turkish edition of this treatise itself is correct and reliable, because several manuscripts of this work of Avicenna have come to light after the publication of this edition. But, by and large, the translation

seems to be accurate because it was made by an expert team under the direct supervision of Hakeem Abdul Hameed. For a correct translation of this treatise not only a deep knowledge of Greco-Arab system of medicine was necessary but also expert knowledge of English and Arabic languages was also essential. Some knowledge of Greek would have been helpful. The best part of this work deals with drugs prescribed for cardiac diseases and an experienced Hakīm could only give their correct Latin and English names and discuss their properties.

Other Papers

Part II of this book covers pp. 79-216 in which there are twelve papers discussing several aspects of cardio-therapy in the Greco-Arab system of medicine. There are three papers in this part which are directly concerned with heart diseases and drugs for their treatment. One of them is Abdul Hai Farooqui's study of the cardiovascular diseases as described by Avicenna in his *al-Qānūn fit-Tibb* (pp. 130-163) and the drugs prescribed by him for their treatment. The writer does not inform his readers but it is a translation of the section on cardiac diseases in the *Qānūn*, divided into two discourses or *Maqāla*. They are sub-divided into seven and five chapters respectively. In all, they cover eighteen long and closely printed pages of the Cairo edition. (Āmira Press, Vol. II, pp. 262-279). For a study of this section by this reviewer see above.

Two critical appreciations of this treatise of Avicenna included in this book are: one by Dr. H. H. Siddiqui and the late Dr. M. Abdul Aziz entitled "A note on Ibn Sinā's Tract on Cardiac Drugs" (pp. 79-85) and the other by Dr. M. Sardar Yar Khan captioned "*Al-Adwiyat al-Qalbiyah*, a Scientific Appraisal" (pp. 173-185). Siddiqui and Aziz's paper does not discuss the drugs prescribed in the second part of this tract but they confine their comments to the 1st part only which is medico-philosophical in character but original and important in which the relationship between the pneuma, the heart and medicine is explained. The heart is not only an organ of the human body, it also performs psychological and supra-biological functions. It is the seat of emotions and regulates the animal heat.

In his paper, M. Sardar Yar Khan has studied the second part of the tract which attempts to assess the value of 63 drugs prescribed by Avicenna for the treatment of cardiac diseases. Of these drugs 25 cardiotonics have been studied recently after a careful pharmacological and clinical tests and evaluation in the light of modern method of scientific investigation and in the majority of cases the results are found to be satisfactory. Some of these drugs were given to rats and dogs and useful results were obtained. An important question with regard to the traditional medicines may be asked as to whether at present they can be used or not in some form or the other for effective treatment of different diseases. Hakim Arshadullah prepared a well-known compound called *Khamīrah Abresham* whose basic ingredient is the *Abresham*, silk worm cocoon, recommended by Avicenna. It has yielded good result for the treatment of antihypercholesterolaemic and antiarrhythmic complaints. Saratikov stated after

thorough research that *Kafur* or camphor has cardiovascular activity which confirms the claims of Avicenna. Recent research has established that *Lisān ath - Thawr* or Bugloss recommended by him is a diuretic agent and it is useful in the treatment of cardiac oedema and pulmonary congestion.⁸

Hakim Mohammad Said's paper "Fight against Heart Diseases in Ancient and Medieval Times" (pp. 86-96) is not only interesting but also informative, but it is sketchy and lacks documentation. He starts from 3000 B.C. and covers a long period coming right upto the time of Ibn an-Nafis—end of the 13th century (d. 1288 or 1296 A.D.) who is rightly credited to have first given the details of the pulmonary or lesser circulation of blood and stated clearly that blood was filtered through the pores of the septum.

Other papers included in the second part are "Psychosomatic Aspects of Cardiovascular Diseases" by Dr. 'Abdul 'Azīz (pp. 97-104) which discusses hypertension, structural heart diseases and their psychotherapeutic and psychosocial aspects. O. Cameron Gruner's translation of Avicenna's discussions of the "Four Emotions" and "Four Temperaments" have been published in it (pp. 105-123). They are based on the *Qānūn*.⁹ Abdul Hai Farooqui's second paper is entitled "Importance of Aromatics in Greco-Arab Cardiotherapy" (pp. 164-171) which discusses briefly the medicinal therapy, dietotherapy, hydrotherapy, musicotherapy and aromatic drugs useful for heart diseases. Dr. R. B. Arora's paper entitled "Cardiovascular pharmacotherapeutics of some Indigenous Medicinal Plants" is a useful paper covering 186-196 pages. It is based on plants with cardiovascular activities found in a screening programme at the Central Drug Research Institute at Lucknow. A short paper entitled "Human Constitution in Clinical Medicine" by G. P. Dubey and R. H. Singh (pp. 124-129) deals with the question of the relation between body weight and heart diseases. The last paper by Dr. S. B. Vohora deals with a subject on which not much has been written i.e. Elements and Cardiovascular Diseases (pp. 197-216). It throws light on a special aspect of the diseases of the heart and their treatment.

The simple drugs prescribed by Avicenna for different cardiac diseases are also discussed in the *Qānūn* (Cairo ed. Vol. I, Second Book, pp. 222 ff.) They are some of those drugs prescribed by the physicians who preceded him such as 'Alī bin Rabbān aṭ-Ṭabarī, *Firdaws al-Ḥikmah* (edited by M. Z. Siddiqi, Berlin, 1928, pp. 226-228), Abū Bakr Muḥammad bin Zkarīyah ar-Rāzī (d. 923/24), *Kitāb al-Ḥāwī fi'ṭ-Ṭibb*, Vol. IV, (Hyderabad, 1376/1957, pp. 225); Vol. VII (1378/1958, pp. 321). Some of these drugs are also discussed by al-Bīrūnī, the well-known contemporary of Avicenna, in his *Kitāb al-Sayadanah* edited with an English translation by Hakim Mohammad Sa'īd (Karachi, 1973; 430 columns of Arabic text; English translation pp. 376).

Hakim Mohammad Said has edited and published a sister volume entitled *Greco-Arab Concepts on Cardiovascular Diseases* (Karachi, 1983, pp. 201). This book also discusses Avicenna's Tract on Cardiac Drugs and their therapeutic action. In the last part of

this book a full chapter mentions the drugs used in cardiovascular diseases since ancient times (pp. 161-190).

A critical appreciation of this treatise may be offered in this review. E. G. Browne¹⁰ and Hakim Abdul Latif¹¹ speak highly of its originality value and importance while L. Leclerc and Sami K. Hamarnah express adverse opinion about it.¹²

Both views, one in favour of this treatise and the other against it are exaggerated. A thorough and critical study of this treatise will lead to the conclusion that it has both merits and demerits. It is not correct to state that it provides "no new information, no new drugs and no new line of treatment." There is no doubt that its discussion of the relation between the pneuma, heart and medicine is original and in a way it anticipates psychosomatic concept in the modern sense. Had this treatise been so worthless and unreliable as stated by Hamarnah, it could not have acquired such reputation in the Middle Ages. An attempt has been made in it to prove that moral qualities are based on the functioning of the heart in combination with the pneuma. It contains a few personal clinical notes of Avicenna and in so far as compound drugs are concerned, most of the twelve prescriptions—one of them contains 38 different drugs—seem to be based on his personal experience which certainly enhances the value and importance of this treatise. Further, Avicenna explains, *inter alia*, the methods of pharmaceutical propertise, forms, dosages, strength of each drug and technique of application, preservation and therapeutics. The clarity of thought and expression is characteristic of the writings of Avicenna and the whole discussion is in a high key.

It would, however, be incorrect to suggest that this treatise does not suffer from any demerit. In the *Qānūn* as well as in this *Risāla* he puts forward the traditional statement about the anatomy and physiology of the heart and the circulation of blood based mainly on the writings of Galen.

A serious defect of this treatise is that all heart diseases are not clearly and specifically mentioned and several prescriptions recorded in it are not specially for the treatment of cardiac diseases but for ailments of other parts of the body. Several general diseases of the stomach are mixed up with heart diseases. Moreover, the seat of psychaic power is the brain and not the heart as stated by Avicenna. Unconsciousness or *ghashi* is also not due to the heart as asserted by him but caused by lack of adequate circulation of blood in the brain which supplies nutrition to the brain cells. Moreover, the weakness of the heart is due to blood and not due to the heart. It is caused mostly on account of the diseases of the coronary arteries which supply blood to the heart muscles. It may also be due to the diseases of heart muscles and its valves. Avicenna states that egg yolk works on the heart but it is not so as it works on the blood and increases its chlolesterol (fat content of blood). Modern physicians will not recommend egg yolk for a heart patient,

Even considering the fact that there was no hard and fast distinction between philosophy and medicine at the time of Avicenna, his statement that the left cavity of the heart is the seat of the pneuma does not belong to the domain of medical science. This is a metaphysical notion grafted on a medical treatise. The concept of the pneuma (*ar-Rūḥ*) itself is imprecise since it indicates different things in different context.

This treatise has merits as well as demerits, but it cannot be judged from the point of view of the very advanced and scientific knowledge of heart diseases and their treatment available in modern times. Since they have reached fearful proportions and are the highest killer of human beings for people above forty, particularly in more developed countries, even more fatal than cancer, much attention has been paid to them by physicians all over the world. It is true that he had no idea of obstruction of arteries, atherosclerosis, elevated cholesterol levels, coronary thrombosis, myocardial infarction and high blood pressure. But it should be remembered that this treatise of Avicenna was written in the early eleventh century and it should be reviewed in the light of the state of knowledge concerning heart diseases and their treatment at that time. In this century of highly developed science and technology, many instruments and apparatuses such as electrocardiogram, echocardiogram and coronary angiography are available as aids to the treatment of heart diseases which were not available to Avicenna. That he wrote a treatise on specific heart diseases is enough to show that he considered them to be most fatal ones. If a history of heart diseases from the Greeks to the beginning of modern times is written, it would not be possible to ignore this treatise of Avicenna. Moreover, modern clinicians may study his heart therapy and may use it with good results.¹³

However, Hakeem Abdul Hameed and his team of experts in Greco-Arab medicine deserve thanks from medical practitioners, particularly those who are specialists in cardiac diseases, for making an important tract dealing with traditional drugs for their treatment available to the English-speaking world along with twelve other papers related to this subject. Its physical appearance—paper, quality printing, illustrations and binding—is also soothing to the eyes.

REFERENCES

¹See al-Qifī, *Ta'riḥ al-Ḥukamā'* edited by J. Lippert, (1903), p. 48; Ibn Abi Uṣaybiā', *Uyūn al-Anbā' fī Ṭabaqāt al-Aṭibbā'* (Beirut Repr) p. 457.

Ibn Sinā's autobiography and biography have been studied by William E. Gohlman, *The Life of Ibn Sina*. A critical edition and annotated translation (Albany : State University of New York, 1974) pp. 163 and M. S. Khan, "Ibn Sinā, Philosopher, Physician and Scientist" in the *Islamic Culture*, (Hyderabad, October, 1982) pp. 249-264.

²Ibn Sinā, *Kitāb al-Qānūn*, 3 Vols (Cairo, 'Āmirā Press, 1294 A.H.). Vol. 11, p. 261.

³*GAL*, Vol. 1 (1943) p. 599.

⁴This is a different work. A copy is preserved in the library of Milli Malik of Tehran. See Syed Sadiq Gauharin, *Hujjat at-Haq Ibn Sinaj Pur-i Sinā* by Said Nafisy and Mahmood Najmabadi,

⁵*Edviyez-i Kalbiya* by Ibn Sinā, Arabic text edited by Kilisli Rifat Bilge (Istanbul, Basan ve Yayan, 1937), pp. 62. Turkish translation by the same, pp. 63 with a short introduction and glossary of the simple drugs.

⁶*Kūtāb al-Adwiyat al-Qalbīyah* by Ibn Sinā, translated by Hakim Abdul Latif (Calcutta : Iran Society, 1956) pp 31+122.

⁷See *Avicenna Commemoration Volume*, A.H. 370—A.H. 1370 (Calcutta : Iran Society, 1956), pp. 324 at pp. 245-254.

⁸Similarly, the Ayurvedic medicine *svarpagandhā* dry alkaloid is the central ingredient of the Sarpacil and purified Risarpin manufactured by Ciba. It is found quite useful for controlling high blood pressure.

⁹Text edition cited Vol. II, pp, 265-267.

¹⁰E. G. Browne, *Arabian Medicine*, (Cambridge, 1962) p. 61.

¹¹Hakim Abdul Latif, Article cited, p. 246.

¹²Sami K. Hamarnah *Catalogue of Arabic MSS on Medicine and Pharmacy at the British Library* (Cairo, 1975) p. 98. He makes these adverse comments while describing a MS of the *al-Adwiyat al-Qalbīyah* no. Or. 5280 at London.

¹³See Hakim K. A. Shafqat Azmi and others, *Avicenna's Adwiyah-i-Qalbīyah* (A precious Book on Cardiac Drugs) in the *Hamdard*, Vol. XXVI/A (Karachi, October-December. 1983) pp. 96-102.

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