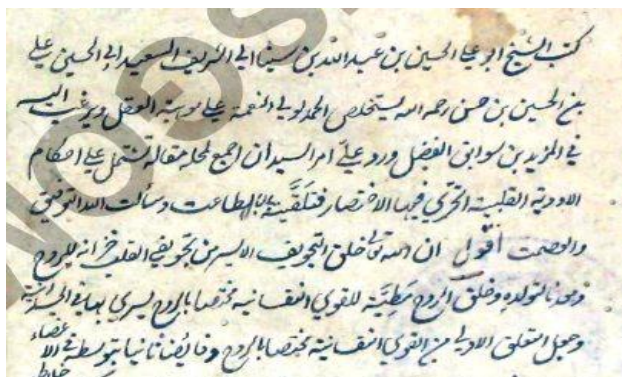


Al-Adwiyah Al-Qalbiyyah of Ibn Sina, an Important Book on Unani Cardiac Drugs

Ashfaque Ahmad¹, Rahemeen Bano², Sania Sultana³, Mehsan Bin Hussain Barawaz⁴

¹Corresponding Author, Research Officer (Unani), CCRAS-National Institute of Indian Medical Heritage, Hyderabad, India

²Unani Consultant, ^{3,4}PG Scholar, Govt. Nizamia Tibbi College, Hyderabad, India



Abstract— Risāla al-Adwiyah al-Qalbiyyah, written by Abū ‘Alī al-Ḥusayn ibn ‘Abdallāh Ibn Sīnā (980–1037 AD), is a significant contribution to the philosophical understanding of cardiac ailments. Two copies of this manuscript are preserved at the Telangana Government Oriental Manuscript Library and Research Institute (TGOMLRI), Hyderabad, and their digitized copies are available at NIIMH, Hyderabad, with:

- Copy 1: Accession No. 1607
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The Arabic text has been published, and its Persian translation, *Tafrih al-Qulūb*, by Ḥakīm Ahmadullah Khan, is also available. Additionally, an Urdu translation by Ḥakīm Abdul Latif was published by the Iran Society, Calcutta, in 1956 AD.



In this work, Ibn Sīnā details 63 remedies for heart ailments, refining his earlier concepts and presenting a more advanced theoretical framework. He categorizes his ideas under several key aspects: Qalb (heart), Rūḥ (vital spirit), Mizaj (temperament), Akhlāṭ (humours), ‘Ilm al-Nafsiyat (psychology), Ajsām (cells)

Avicenna explains that these factors collectively play a crucial role in the development and treatment of cardiac ailments. He places particular emphasis on the concept of Rūḥ (vital spirit), which is closely linked to Mizaj (temperament) and Akhlāṭ (humours). Any imbalance in the humours directly affects the Rūḥ, leading to diseases. Likewise, medicinal substances act according to their inherent temperaments. The theory of Ajsām (cells) is intricately connected to this framework, further shaping Avicenna’s understanding of cardiac health.

Keywords-- al-Adwiyah al-Qalbiyyah, Unani medicine, Rūḥ, Akhlāṭ, Ajsām

I. INTRODUCTION

Heart diseases are increasingly prevalent today, attracting sustained attention from physicians, scientists, and researchers worldwide. The subject has been widely discussed across medical history, with notable contributions from Avicenna, particularly in *The Canon of Medicine* (Al-Qanun) and *Kitab al-Adwiyah al-Qalbiyyah*. These works occupy a central position in the Unani system of medicine (Tibb).

In *Kitab al-Adwiyah al-Qalbiyyah*, Avicenna elaborated on foundational concepts such as the heart, vital spirit (ruh), temperament (mizaj), humours (akhlat), psychology (ilm al-nafsiyat), and the notion of bodily units (ajsam). Together, these principles form the theoretical basis of Unani medicine and guide its therapeutic approaches.

On this foundation, Avicenna classified drugs into two broad categories: those used for general diseases and those specifically intended for cardiac conditions. These drugs are derived from plant, mineral, and animal sources, and may be administered either as single substances (mufradat) or compound formulations (murakkabat).

He further categorized them according to temperament into four types: hot, cold, dry, and moist.

Al-Adwiyah al-Qalbiyyah holds a distinguished place in the treatment of both cardiac and general disorders. In his Urdu commentary, Hakeem Abdul Lateef Falsafi initially questioned Avicenna's originality, noting his intellectual engagement with earlier authorities such as Aristotle, Galen, and Farabi. However, he also acknowledged Avicenna's exceptional ability to synthesize earlier knowledge into a coherent and distinctive framework.

Upon deeper study of Risala al-Adwiyah al-Qalbiyyah, Hakeem Abdul Lateef revised his assessment, recognizing it as an original and classical contribution grounded in Avicenna's own investigation and clinical insight. He expressed regret that the work had long been underestimated, often regarded merely as a pharmacological catalogue. In reality, its opening chapters address profound theoretical aspects of medicine, elevating its significance within the Unani tradition.

In the first chapter, Avicenna discusses the fundamentals of life, emphasizing the role of the vital spirit (ruh) as the essence of human existence. He considers human life the highest form of being, dependent on the equilibrium of temperament (mizaj). The quality of the ruh, he explains, is influenced by the balance of humours—blood, phlegm, and bile—as well as by the primary qualities of heat, cold, dryness, and moisture present in both the body and medicinal substances.

Avicenna also distinguishes between living and non-living entities, an idea that may be viewed, in modern terms, as conceptually related to the cell theory. Although this aspect has received limited attention in Unani literature, it invites further exploration under the concept of ajsam (bodily units), which can be understood as fundamental components of life in the human body.

II. DISCUSSION

Some key aspects of Avicenna's theories are briefly outlined here to establish a correlation between the various drugs he described and their relevance to cardiac diseases:

1. Heart

In Avicenna's theories, the heart holds the highest position in the human body. He considers it the central organ, closely connected to the vital spirit (Rūḥ). According to him, if the heart becomes diseased, the vital spirit is also affected, leading to various ailments that impact the body either directly or indirectly.

2. Vital Spirit (Rūḥ)

The vital spirit holds a secondary position after the heart. Avicenna emphasizes that it plays a crucial role in the development of various ailments, with the heart acting as the primary controlling unit.

3. Temperament (Mizaj)

Avicenna categorizes elements into two types:

Life-accepting elements – those capable of sustaining life.

Non-life-accepting elements – those that lack this capacity.

He explains that non-living elements tend to exhibit disharmony due to their repulsive or conflicting nature, whereas life-accepting elements maintain harmony through cooperation and balance. This equilibrium, which he terms temperament (Mizaj), serves as an intermediate state between harmony and disharmony. The more an element inclines towards harmony, the greater its tendency to sustain life. Avicenna further asserts that this unique quality is found only in vital spirits or human souls (Rūḥ-e-Insani), which he likens to a celestial light, signifying the presence of higher, divine existence.

4. Humours (Akhlat)

According to Avicenna, the quality of the vital spirit is dependent on the four humours: Blood, Phlegm, Yellow bile (Safra), Black bile (Sauda)

Additionally, he highlights the role of temperamental conditions, which include:

Hotness, Coldness, Moistness, Dryness

These qualities influence both the body and medicinal substances, ultimately affecting the balance and health of the vital spirit.

5. Psychology (Ilm al-Nafsiat)

Avicenna was the first to introduce the concept of psychological disorders and establish their connection with Unani Medical Sciences (Tibb). He demonstrated the profound impact of human emotions—such as pleasure (Farhat), sorrow (Ghamm), anger (Ghazab), and contemplation or hallucination (Fikr)—on the heart, blood, and other bodily fluids.

Beyond identifying these influences, Avicenna provided detailed descriptions of their cures, explaining how specific drugs act on psychological ailments. He also outlined precautionary measures regarding the proper use and administration of these medicines.

In his discussion of the temperamental conditions of the heart and vital spirit, Avicenna emphasized that human virtues depend on them. He considered psychological traits—such as sorrow and anger, bravery, cowardice, jealousy, and generosity or miserliness—as conditions that could be treated with medicinal interventions.

6. *The Cell or Body (Ajsam)*

In the first chapter of his work, Avicenna elaborated on the concept of temperament (Mizaj) and the presence of elements in maintaining harmony and preventing disharmony. Hakeem Abdul Lateef has rightly observed that Avicenna placed great emphasis on the nature of life, classifying elements into two categories: Living elements, Non-living elements

This classification suggests that Avicenna had an intuitive understanding of cellular structures, despite not having seen them under a microscope. His anticipation of living and non-living components within the body aligns with modern cell theory, which identifies cells as the fundamental unit of life.

Throughout his work, Avicenna consistently highlights the role of vital spirit (Rūh) in bodily functions. He not only recognized the existence of individual cells (Ajsam) but also understood their collective role in forming tissues and the human body. His insights, though formulated in classical medical language, resonate with modern biological principles, reaffirming his pioneering contributions to medical science.

There are several unique and intricate observations made by Avicenna that were not considered by any other scholar before the writing of *Kitab al-Adviyah Qalbiyah*. A careful reading of this work reveals the meticulous effort he put into explaining various aspects of his theories, particularly in relation to: The heart and its significance, The role of vital spirit (Rūh) in health and disease, psychological disorders and their impact on physiology, The concept of cellular structure and its functions, The use of specific drugs for both general and cardiac ailments

The brief account given in the previous paragraphs establishes that Avicenna correctly identified the presence of life and the two types of elements—living and non-living. According to him, the human body ('Alam-e-Sagheer) and the world ('Alam-e-Kabeer) are composed of solid, liquid, and gaseous substances. Scientifically, this concept holds true, as all known elements exist in one of these three states. Unani scholars aptly categorized these as solid, liquid, and gaseous.

III. UNDERSTANDING AVICENNA'S THEORIES CONSIDERING MODERN SCIENCE

To correlate Avicenna's theories with modern sciences, it is essential to examine physiological functions (vital phenomena) occurring in the body. It is a well-established fact that all living beings perform vital functions to sustain themselves by utilizing food (organic or inorganic) in the presence of heat, leading to the release of energy through metabolic processes (both anabolic and catabolic reactions).

In the Unani system, heat (Nar) has often been described as one of the fundamental states of matter. However, this interpretation is scientifically inaccurate, as heat is not a separate state but a catalyst for chemical reactions. Furthermore, energy is sometimes mistakenly equated with food. The heat produced during metabolism is a form of energy, which is then utilized by the body for its vital functions.

This misunderstanding likely arises from the fact that energy, though continuously used by the body, does not manifest in a visible form. Since its presence is not directly observable, it has sometimes been mistaken for food. However, in scientific terms, food serves as a source of energy, while heat is a byproduct of metabolic reactions that sustain life.

IV. METABOLISM AND THE CONCEPT OF HUMOURS IN UNANI MEDICINE

Considering the previously discussed metabolic aspects, it becomes evident that the humours (Akhlat), as described in Unani medicine, are essentially the byproducts of metabolism. When metabolic processes function smoothly and without obstruction, the body remains in a state of physiological balance, preventing the onset of most ailments. However, any imbalance or disruption in metabolism inevitably affects vital processes, leading to functional disorders that can impact various organs and systems.

Thus, metabolism plays a pivotal role in maintaining normal health. However, it is also essential to acknowledge other causative factors—such as pathogenic agents, environmental influences, and genetic predispositions—that contribute to different types of diseases.

Metabolism is a continuous and dynamic process, during which numerous biochemical substances are synthesized and broken down. These include proteins, vitamins, hormones, lipids, enzymes, and other essential compounds.



In this context, it is scientifically more accurate to consider these biochemical substances as the true equivalent of humours in the Unani system. Contrary to traditional Unani belief, humours themselves do not inherently cause ailments; rather, diseases arise due to disruptions in physiological or pathological processes.

V. AVICENNA'S CLASSIFICATION OF DRUGS

In *Kitab al-Adwiyah al-Qalbiyyah*, Avicenna presents a systematic account of drug properties and actions through precise medical terminology. Central to his approach is the Temperamental Theory, according to which drugs are classified into four primary types: hot (*har*), cold (*barid*), dry (*yabis*), and moist (*ratab*).

He further organizes drugs by therapeutic application into two broad categories: those used for general ailments and those specifically intended for cardiac conditions. This functional classification is based on their properties, actions, taste, smell, and temperament.

Drugs are administered in two principal forms: single substances (*mufradat*) and compound formulations (*murakkabat*). This distinction constitutes a fundamental principle of treatment in the Unani system and is also reflected in other traditional medical systems of India.

Avicenna documents numerous single drugs derived from plant, animal, and mineral sources for both general and cardiac diseases in *Kitab al-Adwiyah al-Qalbiyyah*. Comparable material appears in his *Canon of Medicine (Al-Qanun)*, where drugs from all three origins are described in detail. The present study compiles these drugs along with their probable identifications and botanical equivalents.

Through this integrated framework—combining therapeutic classification, modes of administration, and temperamental qualities—Avicenna establishes a coherent method for understanding the interaction between drugs and the human body.

VI. TERMINOLOGIES FOR DRUGS USED IN GENERAL AILMENTS

Avicenna introduced a detailed classification system for drugs based on their pharmacological properties and actions. He described 41 distinct categories in detail. 10 additional categories without detailed descriptions

Some of the key classifications include Lateef (Exhilarating, Soft, or Thin), Katheef (Coarse or Hard), Jali (Detergent or Cleansing Agent), Hazim (Digestive Stimulant)

These classifications provide a scientific framework for understanding how different drugs interact with bodily functions, offering a rational basis for drug selection in the treatment of various diseases.

VII. TERMINOLOGIES FOR CARDIAC AILMENTS

In addition to general pharmacological terms, Avicenna employed a set of specialized terminologies to describe drugs used in cardiac conditions. These terms reflect both the properties of substances and their physiological effects. Among the descriptive qualities, he used expressions such as *latif* (rarefied), *kathif* (dense), and *tiryaq* or *fad-zahr* (antidote). He also referred to functional categories like *mushil* (purgative) and *munbit al-lahm* (flesh-promoting), though some of these are discussed only briefly.

For cardiac and related disorders, Avicenna broadly classified drugs into the following categories:

1. *Mushil* (Purgative): Eliminates waste materials from the body.
2. *Mulattif* (Attenuent): Reduces the viscosity of humours and facilitates their movement.
3. *Mohallil* (Resolvent): Dissolves swellings and pathological accumulations.
4. *Mufattih* (Deobstruent): Removes obstructions in vessels and tissues.
5. *Jali* (Detergent): Cleanses and purifies, aiding in the removal of impurities.
6. *Qabiz* (Astringent): Constricts tissues and controls excessive discharges.
7. *Munaffikh* (Flatulent): Produces expansion, particularly within the digestive system.
8. *Mughri* (Agglutinant): Promotes adhesion and tissue repair.
9. *Rade'* (Repellent): Counteracts harmful influences affecting the heart.
10. *Mukhaddir* (Narcotic): Relieves pain and induces sedation.

Drawing on these classifications, Avicenna described numerous drugs of plant, animal, and mineral origin for both general and cardiac ailments, with particular emphasis on those beneficial for heart conditions.

While the use of single drugs (*mufradat*) remains a core feature of the Unani system, its theoretical basis is not always clearly explained in classical texts. Traditionally, it is believed that each drug possesses inherent properties and actions that enable it to treat specific diseases. This understanding evolved through long-standing observation and clinical practice.

It is also often assumed that such drugs act without adverse effects; however, this claim lacks systematic scientific validation, and their mechanisms of action are not fully established in modern biomedical terms.

VIII. CARDIAC DRUGS MENTIONED BY IBN SINA IN
 RISĀLA AL-ADWIYĀ AL-QALBIYA

Here is the list arranged in alphabetical order:

1. Abresham | Silk Pod (Animal) | Bombyx mori
2. Ambar | Ambergris (Plant) | Ambra grisea
3. Amla | Indian Gooseberry (Plant) | Emblica officinalis
4. Anfiha | Rennet (Animal) | Seriparium
5. Armat | Fragrant Screwpine (Plant) | Pandanus odoratissimus Roxb.
6. Âs | Myrtle (Plant) | Myrtus communis Linn.
7. Azaryuna | Sunflower (Plant) | Helianthus annuus Linn.
8. Badranjboya | Balm Mint (Plant) | Melissa officinalis Linn.
9. Badrooj | Sweet Basil (Plant) | Ocimum basilicum Linn.
10. Bahman | Behman (Plant) | Centaurea behen Linn.
11. Baiḍa | Egg (Animal) | Gallus domesticus
12. Basfaj | Common Polypody (Plant) | Polypodium vulgare
13. Busd | Coral (Animal) | Corallium rubrum
14. Dārĉhini | Cinnamon (Plant) | Cinnamomum zeylanicum
15. Dārūnaj | Doronicum (Plant) | Doronicum hookeri
16. Faranjmushk | Basil (Plant) | Ocimum gratissimum
17. Fawania | Peony (Plant) | Paeonia officinalis
18. Fizza | Silver (Mineral/Metal) | Argentum
19. Fustuq | Pistachio (Plant) | Pistacia vera
20. Gaozabāñ | Bugloss (Plant) | Borago officinalis
21. Ghariqūn | White Agaric (Plant/Fungus) | Polyporus officinalis
22. Gil-e-Makhtoom | Sealing Clay (Mineral/Clay) | Terra sigillata
23. Hajr-e-Armani | Armenian Bole (Mineral/Stone) | Lapis arminium
24. Halila Kabuli | Chebulic Myrobalan (Plant) | Terminalia chebula
25. Jadwar | Zedoary (Plant) | Delphinium denudatum
26. Kāfūr | Camphor (Plant) | Cinnamomum camphora
27. Kahraba | Yellow Amber (Plant) | Vateria indica L.
28. Khairbua | Small Cardamom (Plant) | Elettaria cardamomum
29. Kishneez Khushk | Coriander (Plant) | Coriandrum sativum
30. Kumathara | Pear (Plant) | Pyrus communis
31. Kundur | Frankincense (Plant) | Boswellia serrata
32. Laḥm | Meat (Animal) | —
33. Lajward | Lazurite, (Mineral/Stone) | Lapis lazuli
34. Lulu | Pearl (Marine Animal) | Mytilus margaritiferus
35. Momiyai | Mineral Pitch (Mineral) | Asphaltum
36. Mushk | Musk (Animal) | Moschus moschiferus
37. N'ana | Mint (Plant) | Mentha arvensis
38. Nammām | Wild Thyme (Plant) | Thymus serpyllum
39. Nīlūfar | Water Lily (Plant) | Nymphaea lotus
40. Qāqulla | Greater Cardamom (Plant) | Amomum subulatum
41. Rībās | Ribes (Plant) | Rheum emodi
42. Rumman Sheereen | Pomegranate (Plant) | Punica granatum
43. Sa'd Kufi | Indian Cypress (Plant) | Cyperus rotundus (scariosus)
44. Sālikhā | Cassia Bark (Plant) | Cinnamomum cassia
45. Sandal | Sandalwood (Plant) | Santalum album
46. Sawsan Azad | Iris (Plant) | Iris florentina
47. Sazuj | Cassia Leaves (Plant) | Cinnamomum tamala
48. Shaqaqul | Secacul (Plant) | Asparagus racemosus
49. Sumbul | Nard (Plant) | Nardostachys jatamansi
50. Ṭabāshīr | Bamboo Manna (Plant) | Bambusa arundinacea
51. Tamar hindi | Tamarind (Plant) | Tamarindus indica
52. Tarakhshaquq | Chicory (Plant) | Cichorium intybus
53. Tuffaah | Apple (Plant) | Pyrus malus
54. 'Ūd | Aloe Wood (Plant) | Aquilaria agallocha
55. Ushna | Rock Moss (Lichen, Plant) | Parmelia perlata
56. Ustūkhuddus | Lavender (Plant) | Lavandula stoechas Linn.
57. Utruj | Citron (Plant) | Citrus medica Linn.
58. Ward | Rose (Plant) | Rosa damascena
59. Yāqūt | Ruby (Mineral/Ore) | Corundum
60. Za'frān | Saffron (Plant) | Crocus sativus
61. Zahab | Gold (Mineral/Metal) | Aurum
62. Zarnab | Silver Fir (Plant) | Abies alba Linn.
63. Zarnabad | Long Zedoary (Plant) | Zingiber zerumbet

IX. THEORETICAL BASIS AND MODERN RELEVANCE

A review of Avicenna's drug classifications, properties, and applications reveals that they are deeply rooted in theoretical and philosophical frameworks of Unani medicine. These classifications demonstrate an interconnected approach where various aspects of health and disease are systematically linked.

Given the advancements in modern medical science, there is a strong need for further research to explore how these traditional concepts align with contemporary pharmacology and physiology. Establishing this correlation could provide new insights into the effectiveness of these drugs and their potential integration into modern therapeutic approaches.

Recent meta-analytical studies have evaluated these cardiac drugs in the context of contemporary research. The meta-analytical studies underscore the enduring significance of Ibn Sina's contributions to cardiology. By evaluating his cardiac drugs through the lens of contemporary research, these studies bridge historical medical practices with modern science, offering potential avenues for integrative cardiovascular therapies.

X. KEY FINDINGS FROM RECENT STUDIES

Recent analyses of the 63 cardiac drugs described by Ibn Sina (Avicenna) have provided valuable insights into their clinical relevance:

- **Efficacy and Safety Evaluation:** Systematic reviews of experimental and clinical data have identified several drugs with notable cardioprotective potential and relatively low incidence of adverse effects.
- **Integration with Modern Medicine:** Findings suggest that certain traditional remedies may complement contemporary treatments for cardiovascular diseases, particularly in supportive or adjunctive roles.
- **Mechanisms of Action:** Ongoing research has begun to clarify how these drugs act at physiological and biochemical levels, offering a better understanding of their therapeutic value in cardiac care.

In contrast to the allopathic system—where drugs are synthesized, standardized, and rigorously tested—Unani medicine primarily employs natural substances in their original or minimally processed forms.

For this reason, such substances are often referred to as “crude drugs.” They are derived from whole plants or their parts (roots, stems, leaves, flowers, seeds, fruits, and bark), as well as from animal and mineral sources, including natural exudates like gums and resins.

This section focuses on the single drugs of plant, animal, and mineral origin that Avicenna specifically recommended for cardiac ailments in *Kitab al-Adwiyah al-Qalbiyyah*. These were selected from a broader pool of remedies used for general diseases. Although they may be administered individually (*mufradat*), they are more commonly used in compound formulations (*murakkabat*) to enhance therapeutic effectiveness.

In addition to *Kitab al-Adwiyah al-Qalbiyyah*, Avicenna documented a comparable range of cardiac drugs in his *Canon of Medicine (Al-Qanun)*. A comparison of the two works reveals considerable overlap, with several drugs appearing in both, underscoring their importance in his pharmacological framework.

REFERENCES

- [1] Hakīm Abdul Latif, *Kitab al-Advia al-Qalbiya* (Urdu Translation), Iran Society Calcutta, 1956
- [2] Ibn Sina, *Risāla al-Adwiya al-Qalbiya* Mss, NIIMH, Hyderabad
- [3] Rasheed Uddin Ahmad, "Critical Appreciation of Avicenna's Theories and Terminology of Drugs for General and Cardiac Ailments in *Kitab-ul-Adviyah-Qalbiyah*" *B.I.I.H.M.*, Vol. 7 (3-4), Pp. 138-143, 1977
- [4] Rasheed Uddin Ahmad, *Single Drugs Mentioned by Avicenna For Cardiac Ailments In His Canon And Kitab al-Adwiyya al-Qalbiyyah*, *Bulletin of the Indian Institute of History of Medicine*, Vol.9 (1-4), Pp.46-66, 1979.
- [5] Syed Ziaur Rahman, S. H. Zahid Jamal, *Meta-analytical Study of Cardiac Drugs described by Ibn Sina (980–1037) in the Contemporary Research*, *IJHS* | VOL 55.3 | SEPTEMBER 2020