

ABU ALI IBN SINA AND HIS GREATEST WORK: "THE CANON OF MEDICAL SCIENCE"

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ABSTRACT

The article discusses the meaning and role of medicine in the life of the great physician Abu Ali ibn Sina, as well as his most significant works on medicine. This article is devoted to the consideration of the main works of Ibn Sina on medicine and the influence of medical science on his life, as well as its role and place in his fate.

Keywords: Avicenna, Abu-l-Mansur Kamari, Bukhara library, "prince of doctors", Afshona, "Canon of Medical Science", Hamadan.

INTRODUCTION

A thousand years ago, a brilliant man lived in Bukhara, Abu Ali Hussein ibn Abdallah (Avicenna). For many centuries, grateful descendants have admired his intelligence, perspicacity, ability to comprehend knowledge and draw conclusions that are still relevant today. Experts from different countries turn to the creative heritage of Avicenna, admire him and wonder who he was. Doctors say, that he is a great doctor! Mathematicians consider him a famous astronomer and mathematician! Writers are poets and writers! Geologists are theoreticians of geology! Musicians are music theorists! Philosophers are great thinkers! For many centuries, Avicenna was accompanied by the most honorific titles as a tribute of deep respect and recognition. In the East, he was called "ash-Sheikh" – the Sage, the Spiritual Guide, "ar-Rais" – the head, the ruler, "Hujjat al-Haq" – the authority of truth; in the West, the "prince of philosophers," "the prince of physicians." Nowadays, the American scientist G. Havezer called Avicenna "the Sun of the medical world."

His intellect and works are respected not only in Central Asia, but also in the countries of Eastern and Western Europe, and have not lost their importance to this day. Of the 242 books by Ibn Sina that have come down to us, 60 relate to philosophy, theology and mysticism, 43 books on medicine, 19 books on logic, 26 books on psychology, 23 books on medicine, 7 books on astronomy, 1 book on mathematics, 1 book on music, 2 books on chemistry, 9 on ethics, 4 on literature, and 8 on scientific correspondence with other scientists. To this day, many aspects of his teaching have not yet been fully revealed and have not been properly

appreciated.

Abu Ali Husayn ibn Abdullah ibn Hasan ibn Ali (Avicenna) was born and raised in Bukhara in the village of Afshana (980–1037). From early childhood, Ibn Sina was distinguished by his extraordinary talent and intelligence. There are even legends about the possibilities of his memory, for example, that he remembered himself from a three-month period. At the age of eight, he already knew the Koran by heart and studied all the known sciences of the time. From various sources, it follows that that Ibn Sina also became interested in medicine very early, not yet being 12 years old. According to tradition, he took up its study on the advice of the famous physician and philosopher Abu Salah al-Masihi. "Then I became addicted to the science of healing," says the autobiography, "and began to read books devoted to it. And medical science is not a difficult science, and of course I succeeded in it in a very short time, so that the famous doctors of the time began to come to me for advice. I have also visited the sick, and as a result of my experience, the gates of healing have opened before me in a way that is indescribable. I was 16 years old at the time." He studied medicine of Ibn Sina under the guidance of Abu-l-Mansur Kamari, a famous Bukhara physician and author of a number of scientific works. Kamari's apprenticeship did not last long. Ibn Sina quickly began to practice on his own and soon became such a famous doctor that he was invited to the palace to treat the seriously ill emir of Bukhara, Nuh ibn Mansur. In his autobiography, Ibn Sina recalls: "One day the emir fell ill and the doctors could not diagnose his illness. My name was known to them, and they told the Emir about me and asked him to summon me. I came and participated with them in the treatment and distinguished myself in this service to him." It is not known exactly what the Emir of Bukhara was sick with, and how Ibn Sina treated him. It is only known that the treatment helped, and Nuh ibn-Mansur happily ruled Bukhara for another year. It is also known that in gratitude for the cure, Ibn Sina gained access to the famous Samanid book depository. The Bukhara Library is one of the largest collections of books of that time. Ibn Sina himself considered the work in the Bukhara library to be the most important stage in his life. It was here that his education was completed and his independent creativity began. Ibn Sina used the library of the Samanids for several years. Perhaps it was during his work in the Bukhara Library that he came up with the idea of creating a generalizing work on medicine, where one could find the name of the disease with all its symptoms, as well as an indication of what causes it and how it can be cured. For this purpose, Ibn Sina made the necessary extracts from various books and then periodically summarized them. Thus began the preparation of material for the Canon of Medicine, on which Ibn Sina worked for many years. In his autobiography, Avicenna wrote: "I took up the study of medicine, supplementing my reading with observations of the sick, which taught me many methods of treatment that are not to be found in books." In 1002, when Bukhara was conquered by the Turks and the Samanid dynasty fell, Ibn Sina's father died, and at the age of 22, he left Bukhara, the city where he had become a scientist and encyclopedist, a city that during the reign of the Samanids was a meeting place for prominent people of the era, the center of literary, scientific and theological life. Avicenna went to Urgench, to the court of the rulers of Khorezm, where he began to be called the "prince of doctors". In 1008, after Ibn Sina refused to enter the service of Sultan Mahmud of Ghazni, a prosperous life was replaced by years of wandering. He painted some of his works in the saddle during his long journeys. From 1015

to 1024 he lived in Hamadan, combining his scientific activities with a very active participation in the political and state affairs of the emirate. For the successful treatment of Emir Shams al-Dawla, he received the post of vizier, but made enemies in military circles. The emir rejected the military's demand to execute Ibn Sina, but decided to remove him from his post and exile him from his domain. Forty days later, the emir had another attack of illness, which forced him to find a scientist and reappoint him as his minister. After the death of the emir, he was imprisoned in a fortress for four months for trying to go over to the service of the ruler of Isfahan. For the last fourteen years of his life (1023–1037) he served in Isfahan at the court of Emir Ala ad-Dawla, where favorable conditions were created for his scientific activity. He was the chief physician and adviser to the Emir, accompanying him even in military campaigns. During these years, Ibn Sina, spurred on by criticism of his style, also continued his fruitful scholarly work. He completed the "Canon of Medical Science". Many manuscripts, including the Book of Justice (Kitab ul-Insaf), were burned during the attack on Isfahan by the Ghaznavid army. During one of the military campaigns of the ruler of Isfahan, Ibn Sina developed a serious stomach disease, from which he could not cure himself. Ibn Sina died in June 1037. In a will dictated to a stranger, he gave instructions to release all his slaves, reward them, and distribute all his possessions to the poor.

Recognition of Avicenna's merits in various branches of knowledge is symbolically depicted in the monument-mausoleum over his grave in Hamadan (Iran). The monument consists of 12 columns soaring upwards, connected at the top by a dome. They symbolize the 12 main branches of knowledge of that time, which the great scientist mastered perfectly. Avicenna left a rich creative legacy to his descendants. Avicenna's medical works can be divided into 3 groups: works of a general nature, general and theoretical issues of medicine; works on the pathology of a particular organ or on one particular disease; Works on Medicine. Among them, experts single out two main works: "Kita al-Shifa" ("Book of Healing"), dedicated to the achievements of science of that time in the field of natural science, psychology, astronomy and music theory, as well as medicine, and "Al-kanun-fit-tibb" ("Canon of medical science"), the pinnacle of medical thought of the Middle Ages.

Ibn Sina became world-famous for his main medical work, The Canon of Medicine, completed by the author around 1020. Ibn Sina did not limit himself to recounting the past: he summed up a critical summary at the beginning of the eleventh century, thanks to which the "Canon of Medicine" was also a new stage in the history of the development of medicine. In this work, Ibn Sina suggested that diseases could be caused by some tiny creatures. He was the first to draw attention to the contagiousness of smallpox, to distinguish between cholera and plague, to describe leprosy, separating it from other diseases, and to study a number of other diseases. Ibn Sina's work contributed to the rapid flourishing of medicine, which began in the sixteenth and seventeenth centuries.

The fate of Avicenna's creative heritage in different historical periods was different. 100 years after his death, his philosophical books were burned. And in the twelfth century, the "Canon of Medicine" was translated from Arabic into Latin and distributed in many manuscripts. When the printing press was invented, the Canon of Medicine was among the first printed books and rivaled the Bible in terms of the number of editions. The first Latin text of the Canon of Medicine was published in 1473, and in Arabic in 1593.

The "Canon of Medical Science" collects and summarizes the medical knowledge accumulated by Greek, Roman, Indian and Central Asian physicians, taking into account the views and experience of that time. Avicenna, working with the materials of his predecessors, pursued the goal of avoiding their mistakes and errors. Not content with retelling the past, he subjected their legacy to critical analysis and revision. Thanks to this, the "Canon of Medical Science" became a truly new stage in the development of medicine and served as the basis for its rapid flourishing, which began in the 16th and 17th centuries.

The "Canon of Medical Science" is one of the largest works in the history of medicine, which deservedly received the status of a medical encyclopedia. It deals with everything related to human health and disease. For almost 5 centuries it was the main guide for the study of medicine in universities.

In the work of Ibn Sina, the main place is occupied by thoughts about a healthy lifestyle. According to him, the main indicator of health is exercise, followed by measures of nutrition and sleep. "Exercise is a voluntary action that forces a person to breathe deeply and continuously, a person who exercises moderately and on time will not need treatment for diseases caused by respiratory and temperament disorders." Focusing on types of physical education, it includes wrestling, punching, archery, sprinting, javelin throwing, jumping, fencing, wrestling, and others. Provides complete information about the types, time and order of physiological effects of rubbing. Speaking about eating habits, he said, "You should eat with appetite and not suppress it. In winter, you should eat hot food, and in summer, you should eat cold or warm food."

Eating and drinking too much and too much is always fatal. The most harmful thing for the body is to introduce food before it ripens and is digested in the stomach. Urjuza is Ibn Sina's second major work, after The Laws of Medicine, in which advice on lifestyle is given.

Ibn Sina expressed many innovative and topical views on health and disease prevention. The scientist, convinced that the human body is significantly influenced by the external environment, notes as early as the 11th century that a person can become infected with diseases through air and water. He developed a peculiar system of physical education exercises. According to him, "If you engage in physical education, there will be no need for many medicines, for this you just need to follow the regimen."

In the special section of the work "On the preservation of health", the rules of personal hygiene, physical exercises, mood balancing, daily routine, physical activity, bathroom arrangement, drinking oil, sleep and wakefulness, oral cavity and valuable information about dental care, intestinal cleansing, etc. are given.

Abu Ali ibn Sina describes the hygienic requirements for human health, the conditions that have a harmful effect on the human body, and the ways to eliminate them by correcting mistakes in his lifestyle. It describes the effect of air and its various states — purity, humidity, dryness — on the human body, and shows ways to protect against them. It shows that both stagnant air and moving air are harmful to the body. In his article on bathrooms, he focuses on the hygienic requirements of the bathroom. He stated that entering the bathhouse with full food is a great danger for the body, as well as the harm of prolonged bathing, excessive and strong massage, and at the same time it is useful to walk in the fresh air for some time after

the bath. He writes that meals and eating habits, heavy food make it difficult to digest the food eaten, weaken the body's natural forces and cause various diseases.

It describes a diet based on a person's temperament. This shows that eating very hot or cold food is harmful. If we talk about fatty foods, then such products, in addition to being very nutritious, cause difficulties for their movement in the stomach and intestines, to prevent this, it is recommended to eat quinces and unripe grapes. Physical activity is a great force that promotes health. Excessive consumption of water and beverages weakens the body's natural temperature, weakens it, and puts a strain on the liver.

To reduce the harmful effects of drinking a lot of water and liquids, it is necessary to eat plenty of dry bread. Ibn Sina says that excessive fat intake is harmful to the body in every way and shows that it can lead to the accumulation of blood in the internal organs, cerebral hemorrhage, and accidental death. Eating fat on an empty stomach is particularly harmful. In his articles on movement patterns and waste disposal, he describes the beneficial and harmful aspects of movement depending on the physiological state of the body. He claims that untimely cleansing of the body from toxins leads to contamination of its internal environment - blood and lymph.

Abu Ali ibn Sina gave a number of opinions on medicine in his work, which are applicable to almost all branches of medicine. This work was rightfully translated into almost all the languages of the world and served as a program for the conquest of medical science.

There were legends about the various methods that Ibn Sina used in the treatment of seriously ill patients (herbal treatment, spiritual influence). In fact, these are facts that have become myths. Before treating each patient, Ibn Sina stressed the importance of carefully studying him, getting to know his family and living conditions. One of the main conditions for human health, as the great scientist points out, is the environment, first of all, the purity of the air we breathe.

His thoughts are similar to the tasks of the science of psychohygiene. In the writings of Ibn Sina we also find many works related to psychoprophylaxis. For example, the thinker emphasized education in the field of disease prevention. He also wrote down his thoughts that the nervous system is responsible for a number of diseases, and that anger, fear, and violent contractions weaken the body and cause various diseases.

Avicenna was the first to describe the signs of helminthic infestation in children. He pointed out: "Worms sometimes appear in the stomach of children that bother them. Most of them are located in the anus. Long worms also appear, but flat worms are very rare. When long worms appear, children are treated with a small amount of an infusion of citrus wormwood, giving it to drink in proportion to the strength of the child." It was not until 1830 that Kahler and Alms isolated the substance santonin, which has an anthelmintic effect, from the aerial parts of the citrus wormwood plant. From the point of view of history, it is interesting that citrus wormwood (darmina) is a poisonous medicinal plant, which in 1884 attracted the attention of merchants N. Savinkov and N. Ivanov. In the valley of the Arys River, they built the Shymkent plant for the production of santonin, an expensive anthelmintic at that time. The construction of the plant was an important milestone in the development of the pharmaceutical industry in Tsarist Russia.

The issues of development, upbringing, and treatment of children presented in Avicenna's works allowed historians of medicine to consider him one of the founders of pediatrics. The "Canon of Medical Science" speaks of the need for a comprehensive upbringing of a child so that he grows up to be a kind, intelligent, skillful and physically healthy person.

First of all, Avicenna determined the features of the anatomical structure and physiological functions of the child's body. He attached special importance to the intrauterine development of the fetus, pointed out possible disorders in the body of the unborn child under the influence of causes that arise at the beginning of its formation, paid close attention to the correct management of childbirth, since they largely determine the further development of the baby. Avicenna introduced the age periodization of human life. The age of growth or adolescence was singled out - up to 30 years, which he also divided into 3 stages. The first is infancy, when the newborn's organs are not prepared to move and stand up. The second is childhood, after getting up and strengthening the organs, when the teeth have not yet completely fallen out and grown. The third was called the age of growth or adolescence. It preceded puberty. From the point of view of this division, the famous physician considered the development and diseases of children.

Avicenna devoted special chapters of the "Canon of Medicine" to the upbringing of a healthy child: "On the Regime of the Child from the Moment of His Birth to the Moment of His Feet", "On the Regime of Breastfeeding and Weaning", "On the Diseases of Infants and Their Treatment", "On the Regime of Children in the Transition to Adolescence". Many judgments are striking in their depth, and sensible advice has not lost its relevance. Among them, for example, is the feeding of newborns.

Describing the feeding of newborns, Avicenna emphasized the advantage of breast milk: it "resembles the food that the child received in utero." He also wrote that "practice has established the prevention of various sufferings in the child when sucking the mother's nipple." If there was little or no breast milk, he recommended improving the mother's nutrition or hiring a wet nurse. Avicenna described in detail the requirements for a wet nurse (age, appearance, character), the quality of milk, and the necessary diet. He believed that with the growth and development of the infant, milk alone would not be enough, and from 5 to 6 months of age, easily digestible food should be given. With the appearance of the first teeth, he recommended a denser diet – "bread with water and milk". "Baby should be weaned gradually." The natural period of feeding in the "Canon of Medical Science" is 2 years. These views of the great physician were reflected in the works of Russian and Belarusian pediatricians A. F. Tur, G. N. Speransky, I. V. Korshun.

In the course of spiritual and educational reforms carried out in Uzbekistan in recent years, a comprehensive study of the life, work and work of the great thinker, the introduction of the noble ideas of his works into the consciousness of the younger generation, paying special attention to educating them in the spirit of respect for our rich history. A legendary museum has been created in the village of Afshona in Bukhara.

Avicenna's wise sayings and quotes:

*The doctor has three weapons: a word, a plant, and a knife.

*The soul of the universe is truth.

* Cunning I have avoided, I have unraveled all the knots, Only the knot of death I have not been able to unravel.

* Whoever does not value happiness is approaching unhappiness.

Idleness and idleness not only breed ignorance, they are also the cause of disease.

*I have unraveled the mysteries of the wisest words and deeds. From the black dust to the heavenly bodies.

* Be moderate in your food – that is one commandment, the second commandment – drink less wine.

*There are no hopeless patients. There are only hopeless doctors.

*Кто стар, тот молодым огнем пылать не может.

* Wisdom is what prepares us for the greatest happiness in the higher life.

* The soul is like a glass lamp, knowledge is the light that gives fire, and the wisdom of God is oil. If the lamp is on, you are alive, if it is extinguished, you are dead.

* A fool and a boast do not know how to keep secrets, Caution is truly beyond praise, A secret is a prisoner, if you keep it, You are a captive of the secret, you have only spilled it.

*A doctor must have the eye of a falcon, the hands of a girl, the wisdom of a snake, and the heart of a lion.

* Tell a sick person that you have a stomachache – a healthy person will not understand.

* Constant drunkenness is harmful, it spoils the nature of the liver and brain, weakens the nerves, causes diseases of the nerves, sudden death.

* If you are engaged in physical exercises, there is no need to use medicines taken for various diseases, as long as all other prescriptions are followed at the same time.

If I don't make a path to people's hearts, they won't associate with me, even though they won't be for or against me.

* A person who exercises moderately and in a timely manner does not need any treatment, he is healthy.

* A person who has given up physical exercise often withers, because the strength of his organs is weakened by the refusal to move.

*A person would not survive alone. Everything he needs, he gets only through society.

After analyzing the life of Ibn Sina, we can come to the conclusion that medicine played a key role in Avicenna's life until the end of his days, either elevating him to the pinnacle of fame and power or throwing him into dark dungeons. He lived both in luxury and in poverty, but he did not stop his creative and scientific work for a single day, even when his property was plundered more than once, and his library perished. In connection with his activities, Avicenna wandered from one city to another in a foreign land until his death and was unable to return to his homeland. He visited the rulers of Khorezm, Abiverd, Nishapur, Tus, Gurgan, Rey, Hamadan, Isfahan, but everywhere he devoted himself to medicine.

REFERENCES

1. Ibn Sina (Avicenna). Selected Philosophical Works. Moscow, Nauka Publ., 1980.
2. Abu Ali ibn Sino, The Canon of Medical Science, Fan Publishing House, Vol., 1979. 3.
- Petrov B. D. Ibn Sina — the creator of the "Canon". In the book. "Essays on the History of Russian Medicine". Moscow, 1962.

4. Guzaliya Bakhtiyorovna Khasanova, Nigina Shakarboy kizi Samadova, Behzod Olimjon ugli Zokirov, pp. 210-213, 02/14/2023, "ZAHIRIDDIN MUHAMMAD BABUR'S CREATIVITY IN THE SPIRITUAL EDUCATION OF YOUTH", "Zahiriddin Muhammad Bobur ilmiy-ijodiy merosining jahon adabiyoti, ilm-fani va davlatchiligi tarixida tutgan o'rni" mavzusidagi onlayn xalqaro ilmiy-amaliy anjuman
5. Khasanova G. B., Kholmiraev N. B., Ibrogimov Sh. N. Semya kak sotsial'noy institut formirovaniya lichnosti [Family as a social institute of personality formation]. – 2023. – T. 2. – No. 1 SPECIAL.– P. 420-426.
6. Khasanova G., Korobkova A., Tangrikulova R. CULTURAL HERITAGE OF UZBEKISTAN IN THE DEVELOPMENT OF TOURISM // International Journal of Contemporary Scientific and Technical Research. – 2023. P. 529- 532.
7. Khasanova G., Kumakov Sh., Khamidova SH. ROL' SOTSIAL'NO-GUMANITARNYKH NAUK V VOSPITANII MOLODEZHI [THE ROLE OF SOCIAL AND HUMANITARIAN SCIENCES IN THE EDUCATION OF YOUTH]. – 2023. P. 520-523.
8. Khasanova G. B., Alimova M. A., Khuzhakulova M. M. VIOLENCE IN THE FAMILY: THE PROBLEM OF SOCIAL AND LEGAL LAW. – 2023. – №. 5-2 (108). P. 1431-1436.
9. Khasanova, G. (2023). DEVELOPMENT OF THE TOURISM ECONOMY IN THE JIZZAKH REGION. Science technology&Digital Finance, 1(4), 365-374. <https://supportresult.uz/index.php/stdf/article/view/xg>.