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ABOUT THE CREATIVITY OF FAMOUS DOCTORS OF MEDIEVAL AZERBAIJAN

The aim of this article is to study the history of world medicine in the context of its development in Azerbaijan. The author tried to consider this topic directly related to an in-depth study of the ethnic composition, way of life, geographical environment, as well as the historical and cultural development of large and small peoples who lived on this land and exist now.

Methods and methodologies. The author widely used methods such as analysis of handwritten sources, comparative analysis of similar periods in sources. It should be noted that today's scientific research and studies have shown that the first origins of the development of the rapidly developing science of medicine and pharmacy are associated with the names of the countries of the East. But, unfortunately, there is very little information about these sources and the work of scientists of that time in the development of pharmaceuticals and medicine.

Novelty in the article. The above confirms the relevance of studying all available materials on the history of medicine, as well as the need for a comprehensive and complete study of the history of pharmaceuticals and medicine as an important area of healthcare. It is noted that the Azerbaijani people continuously developed their science and culture in ancient times and the Middle Ages. Scientists and specialists who were educated in the central cities of the East (Cairo, Iskanderiya, Baghdad, Tabriz, Samarkand, Bukhara, Isfahan) collaborated in scientific cooperation. Among them, Abul-ula Ganjavi, Falafi Shirvani, Ibrahim ibn Ali Najar Khagani, Ibn Yusif, Sheikh Ilyas, Katran Tabrizi, Omar Osman oglu and others entered the world cultural treasury.

Conclusions. It is noted that modern research in Europe and the USA has confirmed that the ancient manuscripts stored in our archives and in the archives of other eastern countries are indeed effective in treating various types of diseases. It is emphasized that, recently, developments in the medicinal herb St. John's wort are widely used in US medicine for the treatment of many diseases and ailments. It's a fact that in 2000 alone, \$160 million worth of drugs were sold in the country. The medicinal properties of St. John's wort (dazy otu) were noted in medieval Azerbaijani medical manuscripts, in the works of Haji Suleyman Iravani and Hassan ibn Reza Shirvani in the 18th century. These facts once again prove the wisdom and deep knowledge of our ancestors.

Key words: doctor, scientist, manuscript, medicine, pharmacy, Middle Ages.

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ПРО ТВОРЧІСТЬ ВІДОМИХ ЛІКАРІВ СЕРЕДНЬОВІЧНОГО АЗЕРБАЙДЖАНУ

Мета цієї статті – вивчення історії світової медицини в контексті її розвитку в Азербайджані. Автор спробував розглянути цю тему, безпосередньо пов'язану з поглибленим вивченням етнічного складу, побуту, географічного середовища, а також історико-культурного розвитку великих і малих народів, які жили на цій землі та існують зараз.

Методи та методології. Автор широко застосовував такі методи, як аналіз рукописних джерел, порівняльний аналіз аналогічних періодів у джерелах. Зазначається, що сьгоднішні наукові дослідження та дослідження показали, що перші витoki розвитку науки медицини і фармації, що бурхливо розвивається, пов'язані з назвами країн Сходу. Але, на жаль, дуже мало інформації про ці джерела та роботу вчених у той час у розвитку фармацевтики та медицини.

Новизна у статті. Вищевикладене підтверджує актуальність вивчення всіх наявних матеріалів з історії медицини, а також необхідність всебічного та повного вивчення історії фармацевтики та медицини як важливої галузі охорони здоров'я. Зазначається, що азербайджанський народ у давнину та середньовіччя безперервно

розвивав свою науку та культуру. На науковій ниві співпрацювали вчені та фахівці, які здобули освіту в центральних містах Сходу (Каїрі, Іскандерії, Багдаді, Тебрізі, Самарканді, Бухарі, Ісфахані). Серед них у світову культурну скарбницю увійшли Абул-ула Гянджеві, Фалафі Ширвані, Ібрагім ібн Алі Наджар Хагані, Ібн Юсіф, Шейх Ільяс, Катран Тебрізі, Омар Осман огли та інші.

Висновки. Зазначається, що сучасні дослідження в країнах Європи та США підтвердили, що стародавні рукописи, що зберігаються в наших архівах і в архівах інших країн Сходу, дійсно ефективні в лікуванні різних видів хвороб. Наголошується, що останнім часом розробки по лікарській траві звіробій продріявлений широко застосовуються в медицині США для лікування багатьох хвороб та недуг. Заслуговує на увагу факт, що тільки 2000 року в країні було продано ліків на 160 мільйонів доларів. Лікувальна властивість звіробію (дази оту) була відзначена у середньовічних азербайджанських медичних рукописах, у працях Хаджі Сулеймана Іравані та Хасана ібн Рези Ширвані у XVIII столітті. Ці факти ще раз доводять мудрість та глибокі знання наших предків.

Ключові слова: лікар, вчений, рукопис, медицина, аптека, середньовіччя.

Introduction (statement of the problem). The people who lived in Azerbaijan several thousand years ago already had medical knowledge, and this stage was developing in an ascending manner.

The aim of this article is to study the history of world medicine in the context of its development in Azerbaijan. The author tried to consider this topic directly related to an in-depth study of the ethnic composition, way of life, geographical environment, as well as the historical and cultural development of large and small peoples who lived on this land and exist now.

Methods and methodologies. The author widely used methods such as analysis of handwritten sources, comparative analysis of similar periods in sources. It should be noted that today's scientific research and studies have shown that the first origins of the development of the rapidly developing science of medicine and pharmacy are associated with the names of the countries of the East. But, unfortunately, there is very little information about these sources and the work of scientists of that time in the development of pharmaceuticals and medicine.

Novelty in the article. The above confirms the relevance of studying all available materials on the history of medicine, as well as the need for a comprehensive and complete study of the history of pharmaceuticals and medicine as an important area of healthcare. It is noted that the Azerbaijani people continuously developed their science and culture in ancient times and the Middle Ages. Scientists and specialists who were educated in the central cities of the East (Cairo, Iskanderiya, Baghdad, Tabriz, Samarkand, Bukhara, Isfahan) collaborated in scientific cooperation. Among them, Abul-ula Ganjavi, Falafi Shirvani, Ibrahim ibn Ali Najjar Khagani, Ibn Yusif, Sheikh Ilyas, Katran Tabrizi, Omar Osman oglu and others entered the world cultural treasury.

Mine matters. Azerbaijani doctors who are fluent in Arabic and Persian have visited, studied and worked in various cities of the Caliphate, such as Baghdad, Damascus and Cairo. Books by foreign authors also came to Azerbaijan (Aleperov, 2005: 3–12; 16).

During this period, madrassas operated at large mosques in the cities of Azerbaijan. Arabic and Persian languages, Arabic grammar, logic (religious dogma), jurisprudence (Islamic law), mathematics, calligraphy (calligraphic handwriting), history and eternity were taught in these madrasas. Greek philosophy, astrology, logic, oratory, geometry, medicine, alchemy and other subjects were taught in large madrasas similar to modern universities. Children of landowners and clergy read here (Aleperov, 1992: 88).

This rise, which was laid in the VIII–IX centuries, lasted until the end of the XIV century. It is no exaggeration to say that in the tenth and fourteenth centuries, the Islamic world was the pinnacle of human civilization. The largest universities, observatories, hospitals, pharmacies and libraries were located in the Muslim East, where the most influential scientists worked (Aleperov, 1999: 330–407).

During this period, the pharmacological encyclopedia of Abu Osman Muwaffaq al-Harawi was distributed in Azerbaijan. Although Abu Osman lived and worked in the 10th century in the Iranian province of Herat, his books were popular throughout the Muslim East, including Azerbaijan. In order to collect information about medicinal plants, Abu Usman travelled all over the world and got acquainted with the medical traditions of many peoples, including Azerbaijanis.

One of the first researchers in the field of pharmacology, Abu Mansur Muwaffaq, an outstanding physician, pharmacologist of the 10th century, probably came from Northern Azerbaijan and wrote the first book on pharmacology in 980. The “Scientific work on the basics of pharmacology”, written by Mivaffag or Abu Mansur at the end of the tenth century, deserves attention.

Before writing the book, the author visited Iran and India, studied the drugs used for treatment, and noted that he encountered many difficulties here (Rustamov, 1993: 92).

Ali Asadi systematized Abu Mansour's book on pharmacology in the 11th century and translated it from Arabic into Persian.

Abu Mansour proposed very interesting ways to introduce drugs into the body: eating, drinking, rubbing, moisturizing, drying, blowing, tampons, wicks, etc. Here he paid special attention to the treatment of asthma, skin diseases and prostate diseases.

Abu Mansour considered it necessary for a person to be his own doctor. He said that a person can determine the cause of changes in the body by observing the individual characteristics of his body (Bandaliyeva, 2008: 78–81).

One of the outstanding scientists of Azerbaijan was the uncle of our famous poet Ibrahim Ibn Ali-Najjar-Hagani Shirvani, the great organizer of science and health, Dr. Kafiyaddin Omar Osman oglu. A follower of Ibn Sina's school, Kafiyaddin was also a great philosopher, mathematician, astronomer and chemist.

Umar ibn Uthman Kafiyaddin is by origin the most famous physician and scientist among the Azerbaijani Turks. In Shamakhi, he created and managed a health house there, from where his fame spread throughout the East (Rustamov, 1995).

About Omar Kafiyaddin 1080 – in Shirvan, the capital of Shamakhy, it is believed that he was born in this city. He was one of the most outstanding personalities of his time, and his fame as an Azerbaijani scientist spread everywhere.

In the treatment centres of that time, a corridor system of buildings was usually used. There were waiting rooms and treatment rooms at the entrance, wards on both sides of the corridor and, finally, a morgue at the end of the clinic.

Omar Osman oglu taught his students moral purity, patriotism and service to the people, just as he demanded of himself: “You do good to people, even if you harm yourself”, “Don't be selfish”, and so on.

Omar Osmanoglu's treatment methods corresponded to his views when the disease arose in the 11th century. He believed that in case of malnutrition and overeating, the culture should be cleaned and torn out. In this case, he preferred sour milk taken when heated.

Isa al-Raqqa recommended a variety of foods, herbs and minerals as a remedy. For example, in the case of kidney and intestinal diseases, he treated them with very sweet remedies: honey, grapes, fruits, sweet pomegranate. In case of gastrointestinal diseases, a diet was followed to cleanse the stomach. He also used sour milk, grape leaves (for skin diseases), cherry jam for sore throat and opium “when nature is disturbed”.

Traveling to many countries, Isa-ur-Raki got acquainted with their medical problems and, in addition to translating many works, enriched them with his science and experience.

In his writings Isa-ur-Raki showed that experience is a decisive factor (Bandaliyeva, 2009: 421–424).

Among the good customs of Isa-ur-Raqqa at one time meant food, rest, movement, cleanliness, neatness, restraint and patience. They should be obtained as a result of studying past experiences, the mysteries of nature, their theoretical verification and analysis. Therefore, the legacy of medicine and pharmacology should be studied at the level of these principles and modern understanding. It should also be noted that the origin, development, emblem and basis of medicine and healing are the same, and the common goal is healing. Nevertheless, as a result of the development of these sciences and arts and the expansion of their fields of activity, medicine and pharmacology began to develop as independent fields of science and art in 754 with the aim of uniting them forever by action.

According to religious law, medicine is a field of science and art that works to ensure the physical and mental health of people.

It is well known that when a person is physically ill, he suffers spiritually. When you are mentally ill, the normal functioning of the body is disrupted, and the person becomes mentally and physically disturbed. Therefore, a doctor can become a doctor only if he can feel the patient's pain, determine the cause of his illness and his taste, prescribe the right treatment, gain the patient's trust and not violate the patient-doctor relationship. The task of the doctor is to heal the patient and be able to enjoy him spiritually. Therefore, a doctor should know both medical and religious sciences, he should have a deep philosophical worldview, and a doctor should be wise and modest, as well as a wise psychologist. As a true master of his craft, he should be able to approach the patient individually. He should be able to understand not only the mood of the patient, but also the mood of the people around him (Ibragimov, 1960: 282).

A doctor and pharmacist should fear God and remember the Hippocratic oath, repeat it daily and observe it. After prescribing treatment to the patient, the doctor should monitor the development of the disease, because the same disease does not occur in the same way in all people.

In the past, attar pharmacies were in most cities and villages of Azerbaijan. For example, in Shamakhi, Shusha, Ganja, Aghdam, Nakhchivan, Lahij, Ordubad, Salyan, Lankaran and others. These pharmacies had a wide range of herbs and spices. For example, in the attar pharmacy of Mirbaba Mir Abdullah oglu, the father of Yusif Wazir Chamanzaminli, more than a hundred of 142 medicines were herbal.

However, currently 5–6 “green pharmacies” operating in the country do not have 20–25 such medicinal

plants. However, on the pages of medical literature of that time, including Mirza Mehdi Nakhtash Ganjavi's book "Garabaddin" (1791), hundreds of names of medicines were included in 74 dosage forms. Among them are anushdaru, pasta, kuvarish, torture, vodka, zimad, pills, ointment, hakna, ayaraj and others. You can show it. However, currently the number of dosage forms does not exceed 20. The words "May God heal" were written in recipes as "Huwallahu shafa" (Goyushov, 1987: 42–47).

Among them, Abul-ula Ganjavi, Falafi Shirvani, Ibrahim Ibn Ali Najjar Hagani, Ibn Yousif, Sheikh Ilyas, Nizami Ganjavi, Katran Tabrizi, Imameddin Nasimi, Muhammad Fuzuli and others entered the world cultural treasury (Fuzuli, 1327: 323; Ganjavi, 1983: 22).

Since 1828, when Azerbaijan was occupied by the Russian Empire and European-style pharmacies were established in Azerbaijan, the trend towards studying traditional medicine has decreased. Nevertheless, the work of doctors and attars continued until the 1920s.

In the Middle Ages, along with the economic and cultural development of Azerbaijan, medicine also developed. One of the historical and cultural events of this period was the Maraga Observatory, founded by Nasruddin Tusi in the 13th century, and the observatory of Seyid Yahya Badgubey in Baku (Valiyeva, 2013: 424).

In the writings of Mansur ibn Muhammad ibn Yusuf ibn Ilyas, there is a special chapter in his book "Tibb" (Medicine, 1436), entitled "Rules for the preparation of medicines". He was a proponent of the rule that in the treatment of the disease it is necessary to treat the body with general tonic agents that directly affect the diseased organ. In his comments, the scientist pointed out the occupational diseases of nomads, painters, doctors, weavers and advised them to follow the rules of hygiene for the above professions.

The works of Ramadan ibn Sheikh Ali Lan-Korani (late 13th century) deserve attention. In one of them, in the work "Farrukhname Jamali" (1409), the author spoke about the healing properties of organic and inorganic medicines, showed the healing qualities of milk, brain and stomach. Azerbaijan at the service of this author is the discovery of medicinal mud and the determination of the healing properties of Azerbaijani clay – gulaba.

One of the valuable examples of the Middle Ages is Tokhfatul-Mumin – contribution to the cause of believers (1277) 1863 – new. It was written by Muhammadali Tehrani and published by Dar al-Khalifat Publishing House in Tehran. The author reveals that Akhund Mola Ali and Seyid Hussein Isfa-

hanni helped him write the book. He also mentions authors who wrote before him in Persian and Arabic: Sheikh-ur-Rais, Ibn Ashdas, Abu Hanifa, Yahya Ibn Chozla, Jarjas Ibn Johanna, Sayyaf, Amin al-Dawla, Ibn Talmin, Ibn Baytar, Sheikh David, shows Dr. Ali Gilani (Rustamov, 1993).

Azerbaijani scientist Najmaddin Ahmad Nakhchivani wrote commentaries and additions to Ibn Sina's works on medicine and philosophy. Nakhchivan Najmaddin ibn Ahmad ibn Abubakr ibn Muhammad (born in Nakhchivan, died in 1253 in Aleppo (Haleb), Syria) is a famous Azerbaijani philosopher in the Muslim East, studied in Nakhchivan, studied all fields of science perfectly. He lived part of his life in Azerbaijan and worked at the Maragha Observatory (Valiyeva, 2013: 424). The Arab scientist Ibn al-Ibri (Abu-el Faraj, 1226–1286) wrote about Nakhchivan in his "A Brief History of the States": he was engaged in philosophy. "Nakhchivan was forced to leave his homeland, probably due to political circumstances. The philosopher, who for some time was the vizier of Amir Jaleddin Garatai, could not remain indifferent to the socio-political events around him when he witnessed injustice in high circles. He left palace life in protest and went to Aleppo. Ibn al-Ibri writes: "He traveled a lot around the countries, and finally arrived in Rome, where he held senior positions".

The famous physician Abu Abdullah Muhammad Ibn Namwar Tabrizi (1194–1245), who lived and worked in the city of Tabriz, is the author of the work "Advarul-hammiyyat" ("The most important medicines").

During the Safavid era, several outstanding doctors grew up in Azerbaijan. Yusif Garabagi emigrated from Azerbaijan in the 17th century and lived in Samarkand, where he taught at a madrasah. He wrote commentaries and commentaries on the "Eve" of Ibn Sina. The residents of Samarkand called him "The Great Akhund" as a sign of respect.

Murtuza Gulu khan Shamlu was known as a specialist in sexually transmitted diseases. Besides being a scientist and a doctor, he was the governor of Ardabil (1678) and one of the Safavid emirs.

The activities of Muhammad Momin (died in 1697), originally from Mazandaran, were also connected with Azerbaijan. He was the court physician of Shah Suleiman the Magnificent and, by order of the Shah, created an encyclopedia of medicine and pharmacy called Tokhfatul-Mumin (Contribution of Believers, 1669).

Pharmacist Mohammad Momun, who lived in the 17th century, had already used herbal extracts to treat skin cancer (carcinoma). Modern research in the United States and Europe has confirmed that these

ancient manuscripts are indeed effective. Recently, perforated St. John's wort has been widely used in medicine in the United States. Doctors recommend it for the treatment of mild forms of depression. In 2000 alone, \$160 million worth of medicines were sold in the country. However, the antidepressant effect of dasiot (St. John's wort). It was noted in medieval Azerbaijani medical manuscripts, in the works of Haji Suleiman Irvani and Hassan Ibn Reza Shirvani in the XVIII century. These facts once again prove the wisdom and deep knowledge of our ancestors (Rustamov, 1993).

Hassan Ibn Reza Shirvani, who lived in Shamakhi in the 18th century, wrote "Sirajut-tibb" ("Lamp of Medicine"). This book examines hundreds of complex medicines (pills, candles, pastes, ointments, powders, etc.).

The work of Haji Suleiman Gajjar Irvani "Fawaydul-Hikmat" ("The benefits of wisdom") is devoted to pharmacology. It lists thousands of natural remedies and shows how to use them. Yerevan manuscripts are kept in Azerbaijan, Iran, Egypt and other countries.

Garabadin (pharmacopoeia), written by Syed Muhammad Hussein Khan in 1185 AH and 1771 AD, consists of 20 chapters (Valiyeva, 2013: 424).

Muhammad Yousif Shirvani is one of the famous scientists, doctors and calligraphers of Azerbaijan, who lived in the late 17th and early 18th centuries. Muhammad Yousif Shirvani was born and raised in Shamakhi, where he studied medicine. He was a doctor under Lutfali Bey, the butler of the Shirvan beylerbey Huseyn Khan. In 1711–1712, Muhammad Yousif Shirvani copied the cover of an unknown work "Tibbnameh" and wrote an introduction, comments and explanations. Thanks to his ministry, this book has been preserved to this day. "Tibbnameh" is one of the most important medieval medical works in Turkish. This book is devoted to the treatment of most diseases known at that time.

Muhammad Yousif Shirvani (1704–1813) summarized the views that existed in Azerbaijan up to that time in his work "Tibbname". The "Dictionary of Oriental Medicine" compiled by the author in Azerbaijani, "Treatment standards in the works of famous scientists", various information about the medicinal properties of medicines. Mohammad Yousif Shirvani used grape vinegar, walnut juice, mustard, white

lime, berries, garlic, mulberry leaves, black pepper, blackberry root, peas, ginger, sumac, pomegranate root, tarragon and other rose water the ingredients used. As a medicine, he used decoctions, ointments, plasters, pills, pastes.

As in the pages of Eastern medical literature, the book "Tibbname" says that when treating or giving medicines to patients, "with God's help he will be healed", "God will heal" (Shirvani, 1990: 192).

Originally written in 1775–1776 by Abulkhasan Maragai, originally from the city of Maraga in Southern Azerbaijan, "Treatment-munfarida" ("The most advanced methods of treatment") is dedicated to the treatment of various diseases. The book contains detailed information about herbal, animal and mineral medicines and their therapeutic effects. Currently, this work has been translated and republished at the Mohammad Fuzuli Institute of Manuscripts of ANAS (Bandaliyeva, 2011: 411–412).

In the 18th and 19th centuries, collections of hadiths about the sayings of the Prophet Muhammad and his companions about medicine were compiled and copied in Azerbaijan. The title of these works was "Tibbi-Nabawi" ("Medicine of the Prophet"). Three different Tibbi-Nabawi manuscripts are kept at the Institute of Manuscripts; one of them was handed over by an Azerbaijani secretary named Mohammad Bargushadi.

Since the 19th century, the influence of European medicine has been felt in Azerbaijan, and medical science has entered a new stage (Valiyeva, 2011: 282–284).

Conclusions. It is noted that modern research in Europe and the USA has confirmed that the ancient manuscripts stored in our archives and in the archives of other eastern countries are indeed effective in treating various types of diseases. It is emphasized that, recently, developments in the medicinal herb St. John's wort are widely used in US medicine for the treatment of many diseases and ailments. It's a fact that in 2000 alone, \$160 million worth of drugs were sold in the country. The medicinal properties of St. John's wort (dazy otu) were noted in medieval Azerbaijani medical manuscripts, in the works of Haji Suleyman Irvani and Hassan ibn Reza Shirvani in the 18th century. These facts once again prove the wisdom and deep knowledge of our ancestors.

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