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MEDICAL MUSEUMS: HISTORICAL FORMATION, INTERNATIONAL EXPERIENCE AND RESEARCHES

Annotation

This article is devoted to a comprehensive analysis of the history, formation and current state of medical museums as specialised institutions of preservation and popularisation of historical and medical heritage. It traces the stages of formation and development of the origins of museum work in medicine, starting from the ancient practices of collecting medical instruments and knowledge in Egypt, Greece and Rome (the works of Hippocrates, Galen, Ebers papyrus), through the contribution of medieval scientists of Central Asia (Ibn Sina), up to the key stage of institutionalisation in the early 20th century. The article considers medical museums as scientific and educational institutions whose main mission is to collect, preserve and display artefacts (instruments, pharmaceutical objects) to visualise the historical path of medicine. The importance of pharmaceutical heritage as the oldest form of activity is emphasised.

Key words: medical museums, museum revolution, preservation, popularisation, exposition, exhibit, pharmaceutical heritage, chronological principle, humanistic ideas.

МЕДИЦИНСКИЕ МУЗЕИ: ИСТОРИЧЕСКОЕ ФОРМИРОВАНИЕ, МЕЖДУНАРОДНЫЙ ОПЫТ И ИССЛЕДОВАНИЯ

Аннотация

Данная статья посвящена комплексному анализу истории, становления и современного состояния медицинских музеев как специализированных институтов сохранения и популяризации историко-медицинского наследия. На всем протяжении ее прослеживаются этапы становления и развития истоков музейного дела в медицине, начиная с древних практик сбора медицинских инструментов и знаний в Египте, Греции и Риме (труды Гиппократ, Галена, папирус Эберса), через вклад средневековых ученых Средней Азии (Ибн Сина), вплоть до ключевого этапа институционализации в начале XX века. Статья рассматривает медицинские музеи как научно-просветительские учреждения, чья основная миссия – сбор, сохранение и демонстрация артефактов (инструменты, фармацевтические объекты) для визуализации исторического пути медицины. Особо отмечается значение фармацевтического наследия как древнейшей формы деятельности и необходимость ее музеефикации.

Ключевые слова: медицинские музеи, музейная революция, сохранение, популяризация, экспозиция, экспонат, фармацевтическое наследие, хронологический принцип, гуманистические идеи.

TIBBIYOT MUZEYLARI: TARIXIY SHAKLLANISH, XALQARO TAJRIBA VA TADQIQOTLAR

Annotatsiya

Ushbu maqola tibbiyot sohasidagi muzeylarning tibbiy-madaniy merosni saqlash va ommalashtirish borasidagi ixtisoslashtirilgan institutlar sifatida tashkil qilinishi, rivojlanishi hamda bugungi kundagi faoliyatini kompleks tahlil qilishga bag'ishlangan. Unda jahon tibbiyot sohasidagi muzeylarning vujudga kelish va rivojlanish istiqbollari, (Qadimgi Misr, Yunoniston, Rimdagi tibbiy bilimlar va meditsina asboblari to'plash amaliyotlari; Gippokrat, Galen asarlari, Ebers papirusi, O'rta Osiyoda ushbu sohada o'z faoliyatini olib borgan buyuk olimlar va hakimlar ilmiy merosi orqali muzeylar tashkil qilish amaliyoti o'rganib chiqilgan. Maqolada adabiyotlar va turli manbalarga asoslanib meditsina muzeylari faoliyati ilmiy-ma'rifiy muassasalar sifatida ko'rib chiqilib, ularning asosiy vazifasi – tibbiyotning tarixiy yo'lini ko'rsatish uchun artefaktlarni (asbob-uskunalar, farmatsevtika obyektlari) to'plash, saqlash va namoyish etishdan iborat ekanligi asoslab berilgan. Shuningdek, mazkur sohaga oid farmatsevtika merosining eng qadimgi faoliyat turi sifatidagi ahamiyati hamda uni muzeylashtirish zaruriyati alohida ta'kidlanadi.

Kalit so'zlar: tibbiyot muzeylari, muzey inqilobi, saqlash, ommaviylashtirish, ekspozitsiya, ko'rgazma, ashyo, farmasevtik meros, davriylik prinsipi, insoniylik g'oyalari.

Introduction. Medicine is the main field of human health protection, diagnosis, treatment and prevention of diseases. Throughout the history of mankind it has been subjected to various pathogenic influences - many diseases caused by both natural factors and unfavourable exogenous conditions. This led to the development of human treatment methods, resulting in the formation of the first medical knowledge. With the development of medical knowledge, it became necessary to study it systematically and apply it in practical medicine. As a result of historical development,

medical institutions protecting human health - hospitals and medical schools - were established.

Literature review. The museification of medical science within museums has long been regarded as a subject of ongoing debate in global scholarly discourse. Drawing upon the scientific works of A. Kadrov, V. Ananyev, K. Pashkov, M. Tutorskaia, N. Chizh, and Maud Abbott, this paper presents a comparative analysis of the establishment and evolution of medical museology across different countries. Furthermore, it underscores the enduring relevance of this

field, deemed essential for both studying and analyzing the development of medical science.

Medical museums are institutions that depict the history of human health, medical science and treatment methods. There you can see medical practices, instruments and scientific steps from ancient times to the present day. Even before the concept of medical museums existed, medical collections began to be assembled in ancient Egypt, Greece and Rome [9].

The medical knowledge of ancient Greece was largely based on the teachings of the Greek physician Hippocrates, who is still honoured today. In his time, various methods were used to treat and prevent disease. These included medication (pharmacotherapy) and various religious rituals. Doctors also had a deep understanding of the importance of a healthy diet, regular exercise, daily routines and fresh air. In the 4th century BC, Hippocratic writings such as *Corpus Hippocraticum*, *On Air, Water and Places*, *Epidemics*, *Prognostics*, *Diet in Serious Diseases* and *Aphorisms* were important sources of this knowledge [10]. Various medical instruments used during this work, such as Diokla's spoon, surgical scissors, probe spatulas, and scalpels were preserved.

Claudius Galen made a significant contribution to the development of ancient Roman medicine and medical writings. Many sources recognise him as the greatest scientist, anatomist and naturalist since Hippocrates, which gives him a special place in the study of the history of medicine [1]. Through his writings, the scientist left valuable information about the occurrence of diseases as a result of various external influences and their treatment. Claudius Galen's medical works *The Importance of the Parts of the Human Body*, *Anatomical Investigations*, and *Methods of Treatment* are among the major books written about medicine in the world.

As there were no pharmacies in ancient Rome, medicinal plants were dried at home. Later, pharmacotopists began to appear, who distributed these preparations among the population and prepared various potions and medicinal powders from them [1]. Later, the tradition of preparing and distributing these medicines at home began to emerge, and at the same time the first pharmacies began to appear. The concept of herbology - the effective use of medicinal plants - developed. A catalogue compiled by the ancient military physician Dioscorides has been preserved. It describes about 600 species of medicinal plants and almost 1000 types of preparations used in the treatment of patients. One of the sources that collected complete information on medicinal plants were the works of Pliny.

The formation of medicine in Ancient Egypt began 4,000 years ago BC [7]. In Egypt, along with other disciplines such as mathematics, astronomy and geography, medicine was also studied in depth. The study of medicine dates back to 2000 BC and ancient Egyptian medicine was divided into specialties and medical practices were performed. In particular, this area has seen the development of surgeons, general practitioners, surgical interventions and dentists [7].

Ancient Egyptian culture has left a deep trace in the history of world culture. The most complete source of information on ancient Egyptian medicine is the Ebers papyrus (XVI century B.C.), found in Thebes in 1872. This source consists of 108 papyri joined together, is 20.5 metres long and is called 'The Book of Preparation of Medicines for All Organs of the Body' [4].

It contains about 900 inscriptions used to treat all organs of the human body, diseases of the ear, throat, nose, eyes and skin. The work also contains information about diseases caused by improper diet, various intestinal parasites and supernatural phenomena that were relevant at the time, such as the possession of demons in a sick body. The development of medicine in Central Asia in the Middle Ages

is associated with the names of such scholars as Abu Ali ibn Sino, Abu Sakhl Masikhi, and Abu Abdullakh Ilaki. Their rich heritage, such as "Canons of Medical Science", "Compendium of Medical Sciences", "100 Books on Medical Art", remains relevant even today [10].

We know from centuries of history that the peoples who inhabited the territory of our province had their own ideas about the methods of maintaining human health and treating various diseases. They applied them in practice, using knowledge and skills passed down from generation to generation, as well as the experience of scientists who were famous for their work in this field.

The activity of medical museums is directly related to the emergence of medical knowledge and museology. As is well known, the emergence of medical knowledge served as a basis for the creation of the first international museum association. According to K. A. Pashkov in the emergence in the 20th century of various branches of medicine, in particular pathological anatomy, bacteriology and experimental medicine, served as a basis for the creation of the first international association of medical museums [4].

The formation and functioning of the International Association of Medical Museums is inextricably linked to the stages of development identified in Europe and North America by the famous Dutch museologist Peter van Mersch, the author of hundreds of scientific works on museology and museum business. According to Van Mersch, the formation of the Association of Medical Museums took place in 1906, which coincides with the "Museum revolution" of the late 19th and early 20th centuries. It was during this period that the development of museums in certain areas began, and the first associations and periodicals devoted to museum work began to appear [2].

According to Canadian scientist and pathologist Maud Abbott, the author of the idea of organising an international museum association and uniting the activities of professional societies, a person who combined the educational process and museum activities, "A well-organised museum is an anatomical theatre for general pathology and a practical place for dissecting anatomy". A visit to a medical museum is as important to students as travelling to new countries is to students of geography [6].

As B.D. Petrov, an academician of the former USSR Academy of Medical Sciences, notes, at this time museum business began to develop, and special attention was paid to specialised museums, particularly medical museums. The main stage that determined the development of the museum business was the formation of volunteer teams that organised the museum, created its exposition, and collected basic items, in some cases even without any material encouragement [5]. Their efforts formed the museum's collection, which later grew from small collections into large ones. Museums did not have a plan for collecting exhibits, and the collection was assembled in a scientific way. That is, there was information about the poor functioning of the system, which did not pay attention to such issues as exhibits brought or acquired, their importance for the museum, which departments needed which exhibits [5].

M.Y. Yarovinsky, a specialist in the history of medicine, Doctor of Medical Sciences, Professor of the Department of History of Medicine and Cultural Studies of the Sechenov Moscow Medical Academy, also expressed his opinion on the need to establish interaction with the founders of museums in the process of exposition formation. I.M. Sechenov Moscow Medical Academy M.Y. Yarovinsky [3, 26]. The expositions of medical museums will demonstrate the prospects for the development of the medical industry at the city, district, regional and republican levels, including maternal and child health care and labour protection for

employees of production enterprises. In his opinion, the periodicity of the museum exposition will allow the visitor to see the development of medicine in different periods, regardless of whether he is a medical specialist or a person of another profession. It is known that the expositions of medical museums in different countries are similar on the one hand, but on the other hand there are also differences. In some museums, exposition objects are placed based on the periodicity of the development of the medical system, and in some museums - by departments in accordance with the activities of different branches of medicine.

Serious changes in the museum sphere also affect medical museums. E. Mamaeva emphasises that, as in all spheres, global changes also show their effective results in the museum sphere [11]. That is, there is a continuous increase in the number of museums and the growth of interest in them, expansion of the geography of museums, and changes in the forms and types of activities. Among the various branches of medicine, pharmacy is the oldest form of human activity, even more ancient than art and culture, since it can be considered that it has always served man.

At present, the geography of pharmaceutical heritage and numerical indicators of museified pharmaceutical heritage, as well as the contribution of pharmacy to the history of world civilisation and the development of human society have every right to include historical and cultural pharmaceutical heritage as one of its types in the phenomenon of universal heritage.

In this regard, according to museologist M. Kuzybaeva, all museums in the Russian Federation, medical museums are considered to be scientific and cultural-educational institutions that are engaged in collecting, preserving and popularising the historical and medical heritage among the population. Along with the study of museum exhibits, the entire system of scientific knowledge and practical activities of medicine is studied in the context of humanistic ideas of promoting human health, prolonging life, prevention (prophylaxis) and treatment of various diseases [30].

Medical museums represent a critical institutional nexus between the historical evolution of medical science and contemporary cultural heritage preservation. The foundations of medicine trace back to ancient civilizations – Egypt, Greece, Rome, and Central Asia – where systematic medical knowledge emerged through pioneers like Hippocrates, Galen, and Ibn Sina. Their contributions, documented in seminal works such as the “Hippocratic Corpus”, Galen’s “On the Usefulness of the Parts of the Human Body”, and Ibn Sina’s “Canon of Medicine”, established early frameworks for diagnostics, pharmacology, surgery, and preventive care. Artifacts like surgical instruments, pharmacopeias (e.g., Dioscorides plant catalog), and texts (e.g., the Ebers Papyrus) underscore the sophistication of ancient medical practices and the enduring legacy of herbal medicine.

The formalization of medical museums arose from the need to preserve this heritage, catalyzed by advances in specialized fields like pathology and bacteriology. The establishment of the International Association of Medical Museums (IAMM) in 1906 marked a pivotal institutional milestone, aligning with broader museological shifts termed the “Museum revolution”. Visionaries like Maud Abbott emphasized the museum’s dual role as a scientific resource (an “anatomical theatre”) and an educational instrument, vital for training medical professionals and contextualizing medicine’s evolution. Early collections often relied on volunteer efforts, evolving from unsystematic assemblages into scientifically curated repositories.

Today, medical museums adapt dynamically to global changes, expanding their geographic reach, embracing digital innovation, and enhancing public accessibility. As articulated by museologists like M. Kuzybaeva, they remain scientific and cultural institutions dedicated to contextualizing medicine’s past, present, and future[2]. Their enduring relevance lies in bridging historical wisdom with modern practice, ensuring that the collective memory of medicine’s triumphs and challenges continues to inform and inspire both the medical community and society at large.

Research methodology. The article presents a historical-descriptive study based exclusively on secondary sources. Its goal is to reconstruct the evolution of medical museums from antiquity to the present day through the lens of their cultural and educational mission. The article utilized a comparative analysis of medical museology practices in different countries all around the world. Furthermore. Special attention in the article` composition is given to the analyses of historical texts, using the works and heritage of the great scholars. The main part of the article devoted to the synthesizing scholarly literature.

Analysis and results. Medical museums represent a unique socio-cultural institution fulfilling the critically important function of preserving, interpreting, and transmitting the historical experience of medicine. They serve as the materialized “memory” of the field, visibly connecting the achievements of ancient civilizations (documented in artifacts, texts, and instrumentation) with modern scientific paradigms and practices.

Conclusion. We know that medical museums stand as indispensable custodians of humanity’s enduring struggle to understand, treat and preserve health. From their embryonic origins in the collections of ancient Egyptian physicians, Greco-Roman surgical innovators and medieval Islamic scholars to their formal institutionalization during 20th century. Their main mission was to collect, preserve and contextualize exhibits – particularly pharmaceutical heritage as medicine’s oldest practiced art – enables the visualization of medicine’s historical continuation.

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