

Review

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Ethical aspects of the anatomical museum in the development of a future doctor

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Abstract. The article reveals the tasks of the anatomical museum, which is not only one of the most important conditions for teaching students, but also a moral educational institution. In the process of training medical university students at the Department of Anatomy, its museum is of great importance, as it performs a social function of transferring the accumulated knowledge, experience, material and spiritual wealth to subsequent generations. The formation of the personality of a doctor follows certain directions, including the expansion of professional horizons, the professionalization of mental processes, the formation of a sense of duty and an increase in the level of claims within the chosen profession.

Keywords: education, students, human anatomy, anatomical museum

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Обзор

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Этические аспекты анатомического музея в развитии будущего врача

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Аннотация. В статье раскрываются задачи анатомического музея, являющегося не только важнейшим условием обучения студентов, но и морально воспитывающим учреждением. В процессе обучения студентов медицинского университета на кафедре анатомии большая роль принадлежит ее музею, выполняющему социальную функцию в передаче накопленных знаний, опыта, материального и духовного богатства последующим поколениям. Формирование личности врача следует определенным направлениям, включающим расширение профессионального кругозора, профессионализацию психических процессов, формирование чувства долга и повышение уровня притязаний в рамках выбранной профессии.

Ключевые слова: обучение, студенты, анатомия человека, анатомический музей

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The Anatomical Museum provides «adequate conditions for teaching and educating students». Back in 1908, V.P. Vorobyov wrote, "The name of educational anatomical museum (Studiensaal) means a special collection of specifically made anatomical preparations, as well as drawings and models provided for permanent use of students" [1]. Since the idea of organizing first educational anatomical museums appeared, anatomists have regarded them not only as a significant condition for student education, but also as "morally educating institutions" [1]. In Russia, the anatomical museum was first organized in 1890 by the German anatomist, Professor August Rauber at the Yuryev (Tartus) anatomical theater. A. Rauber is widely known as

the author of a multi-volume textbook on human anatomy, which has had several dozen editions.

The fact that the anatomical museum has an effective practical use for independent work of students is strongly emphasized in many publications of both domestic and foreign anatomists. A. Rauber claims, that "The absence of an educational museum cannot be compensated for". In 1913 V. Vorobyov made several conclusions about the specific role of the educational anatomical museum in normal human anatomy studies. These ideas are relevant to this day:

- the educational museum enables a student to understand the volumetric relationships of the forms that make up a given organ or part of it, before preparation, which

facilitates work and determines a meaningful attitude to the preparation;

- during preparation in difficult cases, the museum serves as a support for those working on preparations;
- when preparing for tests and exams, the museum provides an opportunity for students to get acquainted with parts that have not been dissected and which, when illustrated in atlases with planar drawings, often remain not quite clear;
- "The museum serves senior students as a means to revise and refresh forgotten facts in the memory" [1, 2, 3, 4].

The Educational Museum of the Department of Human Anatomy of Volgograd State Medical University is located in a specially arranged room on the 5th floor of the morphological building and occupies 84 m. Next to the museum, in a hall with a special glazed niche. There is a craniological collection, numbering about 100 skulls and illustrating the variant anatomy of the skull. The museum has 44 showcases that meet museum standards. Showcases are glazed on all sides and have from 3 to 5 shelves made of thick glass or metal, depending on the size of the containers with drugs located on them. Illumination of preparations meets hygienic standards. The museum fund consists of more than 1000 «dry» and «wet» preparations, a significant part of which was made by students in accordance with the requirements for the implementation of educational and research work. The shape and dimensions of containers are determined by the size and quantity of wet preparations placed in them. "Dry" preparations are mounted on stands made of metal, wood, or plexiglass. Paper labels with printed numbers are usually used for marking anatomical formations. Next to the preparations there are labels with the names of the structures indicated by numbers in Russian, Latin and, in part of the preparations, in English. Some "wet" preparations are marked with colored materials, and the names of their anatomical formations are printed on sketches (diagrams) made from these preparations. The museum also contains personal belongings, books, a portrait, a desk and an armchair of the first head of the department of human anatomy of the Stalingrad Medical Institute, Honored Scientist of the Russian Federation, Professor S. N. Kasatkin [5].

Traditionally, the study of any science begins with its history. We believe that history is the morality of any science, during the study of which students are morally educated. A specific feature of our teaching of anatomy at the medical faculty of the university is its clinical focus, which is carried out in various forms of work – at lectures, practical classes, with independent classroom and out-of-audience work of students. The principle of historicism is of moral and educational importance

in the study of anatomy: anatomical facts are considered in aspects of the history of this science. Therefore, paying tribute to scientists who often «mined» anatomical facts for us at risk to health and even life, students get acquainted with their names. Thus, when considering museum drugs with a pulmonary circulation, students learn that Spanish doctor and theologian Miguel Servet who "discovered" it, was burned at the stake together with his works as a heretic [5, 6].

Contextual focus in teaching human anatomy. The official name of our subject «human anatomy» does not contain the term "clinical", since the use of this term in relation to the subject of normal human anatomy is still being discussed. At the same time, the clinical orientation of teaching normal human anatomy is the implementation of one of the methodological principles of studying the subject. The clinical orientation of teaching fundamental medical discipline – human anatomy – at our department is carried out in various forms of work – at lectures, practical classes, with independent classroom and out-of-audience work of students.

The principle of clinical significance is taken into account in each topic in the lecture course. During the presentation of the lecture course, situational tasks are set. In practical sessions, clinical situations are commented on using maximum clarity (demonstration of Lisfranc, Chopard joints, Le Fort fractures, access for intra-arterial administration of drugs, cerebrospinal puncture, dental anesthesia, hernia sites, etc.).

Many years of experience in teaching allowed us to make theoretical generalizations and practical recommendations for studying the structure of the human body from the point of view of the clinical significance of facts, which formed the basis for the creation of a series of textbooks, as well as monographs.

The Museum of the Department of Human Anatomy of Volgograd State Medical University holds review classes with students of 1–2 courses and excursions for students of schools and medical colleges. There is constant scrupulous work to restore the existing exhibits and create and search for the new ones. Dozens of new unique drugs have been purchased. Students themselves significantly contribute to the museum fund during their research work, which is held in accordance with the requirements for performing educational and research tasks. Thus, the museum of the Department of Anatomy provides the opportunity for training of future doctors and biologists.

The anatomy methodology, based on the philosophical principles of development and universal connection, has not only educational, methodological and scientific, but also moral and educational significance. So, for example,

the understanding of the connection of all living things on Earth (and "everything existing is immersed in a higher being"), and the phylogenesis of organs and systems ("a whole world history rests under each gravestone"), allows us to postulate a moral position not only in relation to themselves like that, but also to the entire organic (and maybe not only) world: "...you rip off the grass, and the whole universe shudders".

Thus, the functioning of the museum of the Department of Human Anatomy is necessary not only for obtaining medical knowledge and gaining experience in working with biological objects (implementation of the principle of diversity, the principle of taking into account the influence of environmental factors), but also for introducing spiritual values (implementation of the principle of historicism) created by previous generations of prominent domestic and foreign anatomists-scientists, which will undoubtedly instill love for the future profession.

The order of work in the museum and methodological approaches in the study of macro preparations are described in the textbook [2, 3]. It uses the methods that are simple and acceptable for students to master and at the same time widely used in anatomy. When describing the methods of making drugs, special attention is paid to the systems most studied at the current stage of the development of anatomical science and clinical medicine (lymphatic system, organs of the immune system).

Along with the traditional methods of preparing the preparations, original methods are presented, dealing primarily with lymphology and immunology [6].

Thus, we consider the museum of the anatomy department, which meets all the necessary requirements for the organization of museum work, as a condition for both: obtaining the necessary medical knowledge and the formation of the personality of a future doctor. In the process of systematic studies in the museum (independent and with active consultations of teachers), our students not only acquire medical knowledge (implementation of the principle of clinical orientation in anatomy) and experience in working with biological objects (implementation of the principle of diversity, the principle of considering the influence of environmental factors, etc.), but also join the spiritual values created by previous generations of outstanding anatomists, compatriots and foreign scientists (implementation of the principle of historicism), which constitutes the essential conditions for labor, moral, patriotic, international, environmental and aesthetic education and contributes to the formation of appropriate personal qualities necessary for the future doctor.

Additional info

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Вклад авторов. Все авторы подтверждают соответствие своего авторства международным критериям ICMJE (все авторы внесли существенный вклад в разработку концепции, проведение исследования и подготовку статьи, прочли и одобрили финальную версию перед публикацией).

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