



## THE IMPORTANCE OF THE PATHOMORPHOLOGICAL STRUCTURE IN THE TREATMENT OF STRUCTURAL - FUNCTIONAL TYPES DISEASES OF THE SPINE

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<p><b>Received:</b> February 1<sup>st</sup> 2022 <b>Accepted:</b> March 1<sup>st</sup> 2022 <b>Published:</b> April 14<sup>th</sup> 2022</p>	<p>In this study, which was devoted to the study of the pathomorphology of protrusion and hernia injuries belonging to the structural and functional types of degenerative diseases of the spine, the articular surface of the spine was obtained from the symphysis, spinal disc, fibrous ring and nucleus accumbens. Our topographic and morphological study of the above departments of the spine leads to the choice of an effective method of treatment of protrusion and hernia of the spine. In this case, the microscopic structure of the topographic and morphological state of the symphysis and spinal disc was studied. Spinal synchondrosis is densely covered with discs attached to the surfaces of the upper and lower joints. The inner surface of the connecting disk is much thicker, and the fibrous surface, consisting of dense collagen fibers, is surrounded by a layer that is twice as thick as the thick part. Topographic variability of connective tissue in various parts of the connective tissue has been identified, which has been proven in its histological structure. It was found that the fibrous layers in the dense surface layer of the disk consist of collagen fibers in the circular direction, the next inner layer in the radial direction, and the surface side of the vibrating core in the irregular direction.</p>

**Keywords:** Spine, Symphysis, Cartilage Disc, Fibrous Ring, Cartilage, Protrusion, Hernia.

### THE URGENCY OF THE PROBLEM.

The structural and functional type of degenerative and dystrophic diseases of the spine now occupy an important place among the diseases of the musculoskeletal system, which requires the development of new modern methods of treatment of this disease. It is important to study the topographic, morphological, histological structure of degenerative and dystrophic diseases of the spine in the health care system of the Republic, which leads to early and complete diagnosis of patients [1, 2].

The spine is the basis of the musculoskeletal system, which is one of the most important organs in human life activities. The lumbar disc of the spine works like a lubricated zulf in a human being [9]. The vibrating core of the vertebral disc, on the other hand, creates softness, easing the loads on the spine and reducing stress levels. The fact that the structural and functional type of spinal degenerative diseases develop in professionals working with irregular loads, leads to the fact that it is considered an occupational disease. There are professionals who do not have the ability to

completely eradicate this disease. In today's age of information and computer technology, the working conditions and activities of many professionals are leading to a decrease in mobility [2, 7]. In people's lifestyles, such low mobility and heavy workloads in labor activities lead to an increase in spinal cord diseases [7]. As a result, the disease is manifested by the development of protrusion and hernia of the spine. In these diseases of the spine, the fibrous ring of the spinal disc is damaged and the state of elasticity is disrupted, leading to the development of protrusion and hernia. The complexity of the structural-functional type of degenerative diseases of the spine and the diversity of its structure and location require the development of a treatment algorithm [8]. This will require a thorough analysis of the morphology, topography, and histological structure of the vertebral disc. In the studied data, there is no circulatory system in the topography of the vertebral column, which indicates that it is fed from the lateral tissues in a diffuse manner. Such feeding of the vertebral disc provides only constant movements so that it can take



place continuously. As we noted above, there are occupations in which inactivity leads to degenerative changes in the fibrous ring, resulting in protrusion of the spine, followed by hernia. In this case, the change in the structure of the spinal disc after shocks and various loads, ie a violation of its elasticity, leads to rupture of the fibrous ring after thinning [5]. In patients, the spinal disc becomes deformed if the load begins to increase. In the process that occurs, the tissue of the resilient nucleus shifts, disrupting the inner surface of the fibrous ring and damaging it. As a result of the above loads, the disc becomes dehydrated and malnourished over time, i.e., this process results in the resuscitation of the resilient core tissue. Failure of the connective tissue of the fibrous disc to return to its original position leads to damage to the inner layer of fibrous tissue, an exacerbation of which causes disc protrusion. Spinal cord disc causes significant enlargement of the disc as a result of deformation of fibrous tissue, nerve entrapment, leading to reflex and muscle tonic syndromes of the same area organs [4, 6]. In structural and functional diseases of the neck, chest, lumbar spine, the fibrous ring of the spinal disc becomes thinner over time as a result of degenerative changes, and then manifests itself with rupture, which leads to disc herniation. When the spinal hernia is pronounced based on the topography and morphology of the lumbar disc, it is distinguished by the thinness of the side facing the spinal nerve roots. The thinness of this surface leads to nerve damage and complications. Disc herniation is classified and diagnosed according to the direction of discharge and the size of the hernia [3, 5]. Diagnosis and treatment based on the pathomorphology and topography of the disc in the treatment of protrusion and hernia of the spine will play an important role in improving the quality of life of people in the future.

#### **MATERIALS AND INSPECTION METHODS:**

To study the topography and morphology of degenerative and dystrophic diseases of the spine, neck, chest, lumbar region, we used material from people who died from various diseases aged 30 to 65 years in the autopsy department of the Republican Center of Pathological Anatomy of the UZB. The selection of the obtained materials at different ages is to determine the age-specific changes in the structural and functional diseases of the spine and the occurrence of various pathological changes as people age. The main purpose of our study of autopsy materials is to study the microscopic structure of morphological processes with the topography of degenerative and dystrophic diseases of the spine.

Any topography and morphology can be fully determined when a disc with the spinal cord is removed. Topographic sections were prepared from these obtained materials and we used a light microscope for examination. The findings of the histological data were examined and analyzed. Another reason for our age-related study of destructive av degenerative diseases of the spine, neck, chest, and lumbar region is in line with the priorities of scientific research. With increasing age of patients leads to an increase in irregular loads in the structural functional areas, the emergence of processes that cause hormonal changes and disruption of the normal morphological condition as a result of factors that cause degenerative pathologies in tissues. The constant study of the morphology of the type of structural and functional diseases of the spine requires a scientific analysis of pathomorphological processes. Based on these studies, it can be said that the creation of the pathomorphological basis of the structural and functional areas of the spine serves as a scientific basis for the restoration of human health. Thus, our conclusion based on the pathomorphology of structural and functional diseases of the spine determines the treatment algorithm.

#### **CONCLUSION.**

When analyzing the clinical and pathomorphological changes in the structural-functional type of degenerative-dystrophic diseases of the spine, neck, chest, lumbar region, the spinal disc develops differently in all vertebrae, which requires a correct assessment of pathological processes. The results of the research showed that the study of patients' disease levels and the correct diagnosis of pathomorphological changes should be determined by an individual approach to age, lifestyle and activity.

Diseases of the spine occupy a high place among the diseases of the musculoskeletal system, the main reasons for which indicate the urgency of the topic. The increase in the incidence of structural-functional type of degenerative diseases of the spine is due to the fact that the functional living conditions of people increase in the next 10 years, that is, the required level of mobility decreases.

Thus, it became clear that it is necessary to correctly assess the clinical pathomorphological changes in the structural-functional type of degenerative-dystrophic diseases of the spine. Through this, perfect diagnosis and treatment based on a modern approach are important for human health.



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