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CLINICAL ANAMNESTIC AND PATHOMORPHOLOGICAL COMPARISON DIAGNOSTIC CRITERIA OF SPINE HERNIATION

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Abstract: 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.
Key words: 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 diseases of the locomotor system, which requires the development of new modern methods for the treatment of this disease. In the healthcare system of our republic, it is important to study the topographical, morphological, and histological structure of degenerative and dystrophic diseases of the spine, which leads to early and perfect diagnosis of patients [1, 2].

The spine is the basis of the movement support system, which is one of the important organs in human life. The vertebral disc in humans acts like a well-oiled pulley [9]. The vibrating core of the vertebral disc creates softness, eases the loads on the spine, and reduces the level of tension. The structural-functional type of degenerative diseases of the spine, which develop in professionals working with irregular loads, is a reason to consider it as an occupational disease. There are professions in which it is impossible to completely eliminate this disease. In the current era of information and computer technologies, the working conditions and activities of many professions lead to a decrease in the level of mobility [2, 7].

In people's way of life, such low mobility and heavy loads in work activities lead to an increase in spine diseases [7]. As a result, the disease is manifested by the protrusion of the spine and the development of a hernia. In these diseases of the spine, the fibrous ring of the lumbar disc is damaged, and the state of elasticity is disturbed, 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 structures and locations require the creation of a treatment algorithm [8]. For this, a complete analysis of the morphology, topography and histological structure of the vertebral disc is necessary. In the studied data, the topography of the lumbar disc of the spine shows the absence of a blood circulation system, which indicates that it is fed from the side tissues in a diffuse way. For this nutrition of the vertebral disc to be carried out continuously, only constant movements provide. As we mentioned above, there are people whose inactivity causes degenerative changes in the fibrotic ring, resulting in vertebral protrusion and subsequent herniation. In this case, a change in the structure of the vertebral disc after shocks and various loads, i.e., a violation of its elasticity, leads to the thinning of the fibrous ring and its rupture [5]. In patients, if the load begins to increase, the vertebral disc is deformed. In the process that occurs, the tissues of the vibrating nucleus are displaced, the inner surface of the fibroid is densely attached to it, and it is damaged.
As a result of the above loads, the disc becomes dehydrated and malnourished over time, that is, this process leads to the fact that the fibrous core tissue does not return to its place. Failure of the disc nucleus to return to its original position causes damage to the inner layer of fibrous tissue, which in turn causes disc protrusion. As a result of the deformation of the fibrous tissue, the bulging disc of the spine causes significant enlargement of the disc, compression of the nerve entanglement, reflex and muscle tonic syndromes of the organs of that area [4, 6].

In structural and functional diseases of the spine, neck, chest, and back, the fibrotic disc becomes thinner over time as a result of degenerative changes, and then ruptures, which causes disc herniation. Spinal hernia is characterized by the thinness of the side located towards the nerve roots of the spinal cord. The thinness of this surface leads to nerve damage and complications. Disc herniation is classified and diagnosed depending on the exit direction and its size [3, 5]. Diagnosis and treatment based on the pathomorphology and topography of the lumbar disc in the treatment of vertebral protrusion and herniation will play an important role in the improvement of people's lifestyle in the future.

Material and inspection methods:
The selection of the materials taken to study the topography and morphology of degenerative and dystrophic diseases of the spine, neck, chest, and lumbar regions at different ages is considered to determine the age-specific changes of structural and functional diseases of the spine and the emergence of various pathological changes as people age. The main purpose of our study of autopsy materials is to study the topography and microscopic structure of morphological processes of degenerative and dystrophic diseases of the spine. Any topography and morphology can be fully determined when the vertebral disc is removed with the vertebral bone. Topographic sections were prepared from these obtained materials and we used a light microscope for examination. The summaries of the obtained histological data were studied and analyzed (see Figs. 1-2).

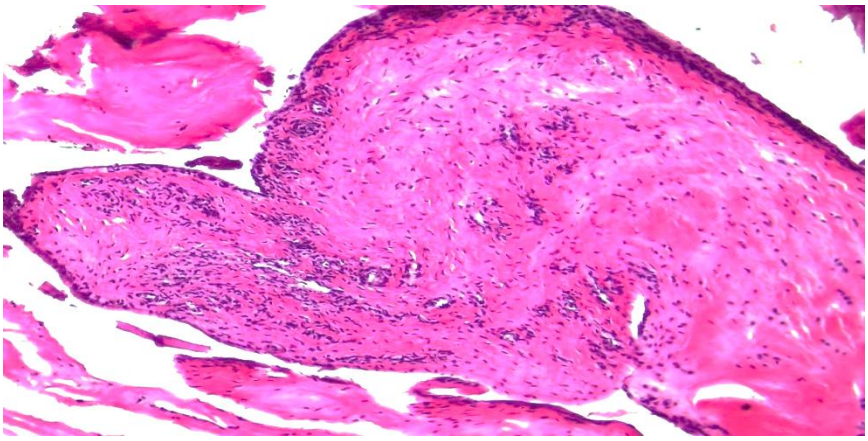

Figure 1. Hernia, the development of the inflammatory process in the ruptured area of the fibroid. Paint: G-E. X: 10x10.

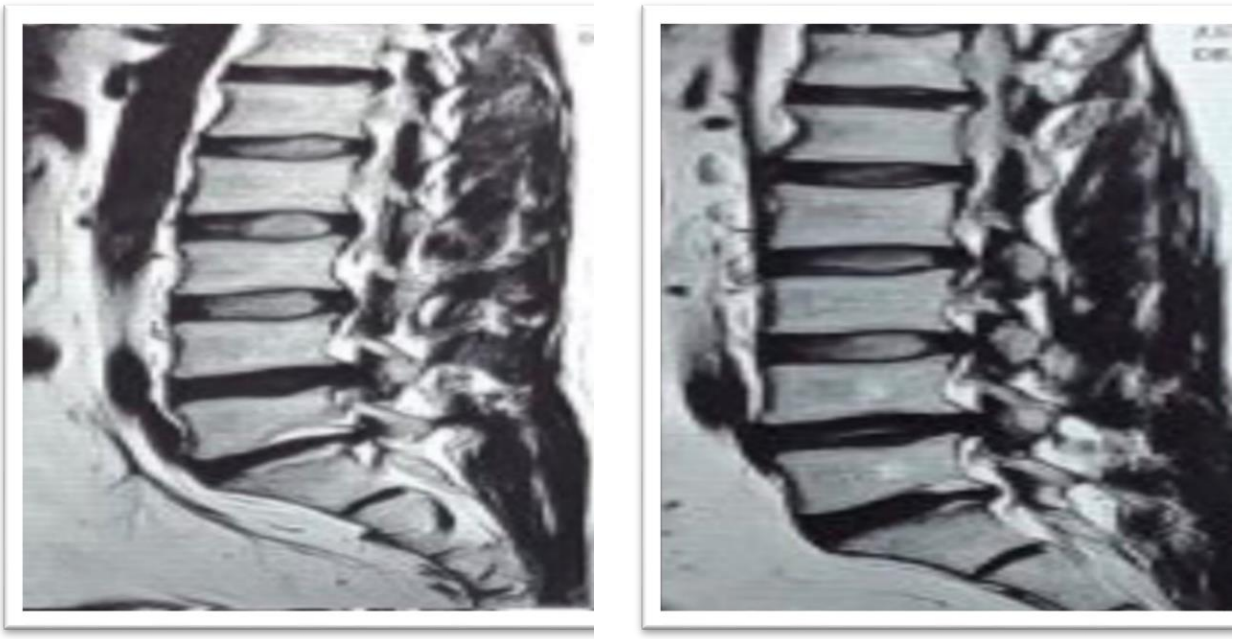

Fig. 2. The speed of impulses in T2 order is 120-140 m/sec, disc herniation in VL4-5 and VL5-VS1 is the next condition (a-discitis condition, b-disc herniation).

Another reason why we study age-related destructive and degenerative diseases of the spine, neck, chest, and back is consistent with the priorities of scientific research. As the age of patients increases, irregular loads in structural functional areas, processes causing hormonal changes and factors causing degenerative pathologies in tissues lead to a violation of the normal morphological state. In the case of structural-functional diseases of the spine, the continuous study of its morphology makes it necessary to carry out a scientific analysis of pathomorphological processes. Based on this researched information, it can be said that creating
the pathomorphological bases of the structural and functional areas of the spine serves as a scientific basis for restoring human health. Thus, our conclusion based on the clinical-anamnestic and pathomorphology of structural-functional diseases of the spine determines the treatment algorithm (see Fig. 3).

When we analyze the clinical and pathomorphological changes in the structural-functional type of degenerative-dystrophic diseases of the cervical, thoracic, and lumbar regions of the spine, we find that the bulging disc develops differently in all vertebrae, which requires the correct assessment of pathological processes. The results of the conducted scientific research showed that in studying the

disease levels of patients and making the correct diagnosis, it was determined that pathomorphological changes should be determined with an individual approach to age, lifestyle and work activity. Diseases of the spine occupy a high place among diseases of the musculoskeletal system, the main reasons for which indicate the relevance of the topic. The increase in the occurrence of structural-functional type of degenerative diseases of the spine is the increase in the functional life conditions of people in the next 10 years, that is, the decrease in the required level of movement.

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. Therefore, it is important for people's health to make a perfect diagnosis and treatment based on a modern approach.

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