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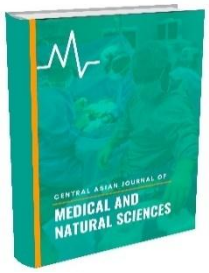

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Diagnosis and Treatment on The Basis of Clinical Morphological Characteristics of Spinal Protruction and Hernia

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ABSTRACT: The fact that protrusion and hernias of the spine play an important role in diseases of the musculoskeletal system today requires the development of new modern methods of treatment of this disease. In the health care system of the Republic it is necessary to study the topographic, morphological and histological structure of protrusions and hernias of the spine, which leads to an early and thorough diagnosis of patients..

KEYWORDS: spine, symphysis, spinal disc, fibrous ring, nucleus accumbens, spinal protrusion, hernia.

The urgency of the problem.

The spine is the basis of the locomot or system, which is one of the most important organs in human life. The spinal disc of the spine works like a lubricated zulf in a human being. The vibrating nucleus of the vertebral disc, on the other hand, creates softness and facilitates the loads on the spine, reducing stress levels. Spinal protrusion and hernia development in different occupations is an occupational disease. There are professionals who cannot 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 decline in mobility. In people's lifestyles, such low movements and heavy loads in cocktail activities lead to an increase in spinal diseases. This is manifested by the development of protrusion and hernia of the spine. The complexity of the vertebral disc and the diversity of its structure in locations require the development of a treatment algorithm. To do this, it is necessary to determine the histological structure of the vertebral column with a complete analysis of morphology and topography.

The study showed that there was no circulatory system in the topography of the vertebral disc, which fed from the lateral tissues in a diffuse manner. Such nourishment of the vertebral disc leads to strengthening only when there are movements to be normal. As we mentioned above, there are professionals whose inactive fibrosis leads to degenerative changes in the ring, resulting in a hernia after a protrusion of the spine.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. When a load that begins to exceed the observed norm in patients appears, the spinal disc becomes temporarily deformed. In the process that occurs, the tissue of the resilient nucleus moves out of place and returns to its place by touching the inner fibrous ring, which is a normal process.

Now the result of the above loads is that over time, the disc becomes dehydrated and its nutrition is disrupted, i.e., this resurgent nucleus tissue does not return to its place. Failure of the connective disc resilient core tissue to return to its original position results in damage to the inner layer of fibrous tissue, an exacerbation of these conditions leading to disc protrusion. The vertebral disc causes a significant enlargement of the disc as a result of deformation of the fibrous tissue, which in turn causes nerve reflex and muscular tonic syndromes of those organs.

The fibrous ring of the vertebral disc becomes thinner as a result of degenerative changes over time, followed by rupture, which causes disc herniation.When the spinal hernia is pronounced based on the topography and morphology of the spinal 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.

The disc herniation is classified and diagnosed according to the direction and size of the outlet. Diagnosis and treatment based on the pathomorphology and topography of the spinal disc in the treatment of protrusion and hernia of the spine will play an important role in improving the lifestyle of people in the future.

Materials and inspection methods:

Another reason we study age-related protrusion and hernia of the spine is in line with the priorities of scientific research. Increased disc load as patients age, the emergence of processes that cause hormonal changes and the formation of degenerative pathologies in the tissues leads to a violation of the normal morphological condition. As a result of these processes, various pathomorphological changes occur in the vertebral disc.

The constant study of the morphology of the protrusion and hernia of the spine requires a scientific analysis of pathomorphological processes. Based on these data, it can be said that the creation of pathomorphological bases of protrusions and hernias of the spine allows to restore human health. Thus, our conclusion based on the morphology of spinal protrusion and hernia determines the treatment algorithm.

Spinal protrusion is caused by various loads and metabolic disruption processes due to the disordered location of the fibrous tissue of the fibrous ring of the spinal disc. In patients between the ages of 30 and 50 who underwent histological examination of the vertebral disc, the disc structure was not the same, with the soft tissue resilient to the center of the vertebral layer facing the nucleus accumbens.

In the middle layer of the disc, the tissue consists of elastic spindle fibers, while at the periphery, the spindle tissue consists of round thin strips of much denser fiber. A normal vertebral disc fibrosis ring reduces the size of the tattoo loads and maintains the normal position of the disc. The inner and outer layers of intervertebral disc fibrous tissue are composed of sparse collagen fibers. Between some collagen tufts a tumor and an intermediate substance were identified, which serve to increase the elasticity of the disc and nourish the disc.

We have already mentioned that not all surfaces of the spinal disc are located in the same way, the same layer is located on the back of the body of the vertebrae, ie in front of the transverse tumor. The thinness of the surface on the posterior longitudinal side of this disc indicates that the fibrous layer is twice as thin as the load stress. In protrusion of the spine, damage to this area of the spinal disc is observed.

Now, if we analyze the mechanism of formation of this process, the loads directed to the spine are mainly applied to the two surfaces of the posterior part of the human spine, i.e. the bony tumor of the bone. As a result of these loads, as mentioned above, the fibrous ring on the posterior surface of the vertebral body causes swelling due to tension, which results in protrusion of the disc. When analyzing patients with spinal protrusion between the ages of 50 and 65 years, it was observed that the elasticity

of the spinal disc nucleus deteriorated with age. At the same time, it is directly proportional to the lifestyle changes in the elderly with diseases of the spine, that is, the prevalence of endocrine diseases at the same age and inactivity. When the reasons for the low incidence of spinal protrusion in old age were studied, the results of histological examination clearly showed that the fibrous layers of the spinal disc are not fully supplied with blood vessels, which only develops through diffuse nutrition. The fact that this process requires movement for nutrition, namely the inactivity of older people leads to impaired disc function, loss of amortization.

When we examined morphological changes in patients with spinal hernia between the ages of 30 and 50 years, it was found that disc damage was mainly due to strong loads, in which the elasticity of the spinal disc was maintained. Dehydration of the vertebral disc is rarely observed in patients of this age in metabolism, because people aged 30-50 years live only with movement and vigorous loads. Histological examination of the spinal disc of these patients revealed the presence of fibrous chondroid substance in the form of islets of different sizes in the interlocking areas of bone and connective tissue. The fact that relatively large chondrocytes occupy the connective tissue around these islets helps to restore the disc configuration of the disc.

Over time, the absorption of some of the islets causes the islands to shrink and become calcified, which is a sign of aging disc herniation. When studying the contingent of patients aged 50 to 65 years, the filling of the islets in the connective tissue with calcified substance leads to a loss of elasticity of the fibrous ring, which occurs in patients of the same age. In the upper joint surface layers of the spine, it was found that the dense connective tissue that connects the bone to the bone is thin, which leads to deformation of the joint surfaces as a result of various loads with age.

CONCLUSION.

When we analyze the clinical and pathomorphological changes in the protrusion and hernia of the spine, the fact that the spinal disc develops differently in all vertebrae, which requires an accurate assessment of pathological processes. The findings of the study showed that pathomorphological changes in the study of disease levels and accurate diagnosis of patients should be identified with 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 causes of which we have already mentioned in the topicality of the topic. The increase in protrusion and hernia of the spine is due to the fact that the functional living conditions of people have increased over the last 10 years, i.e., the required level of mobility has decreased and the elderly have reduced mobility. All this leads to the development of disc disease, ie nutrition, and the development of diseases. Congenital disc protrusion and hernia is a disease of people living in modern conditions and requires the development of modern treatment methods and an individual approach.

The treatment of spinal protrusion and hernia must be based on the clinical morphological findings of the spinal disc, which requires an individual approach to each patient and the diagnosis and treatment based on it.We found that the clinical morphological changes of the vertebral disc we studied were different at different stages of the spine, and that their pathomorphology was abnormal as a result of these stresses.

And at the same time we found that aging leads to irreversible pathological changes of the disc. Thus, the clinical morphological changes of disc herniation and herniation should be properly assessed. Through this, our perfect diagnosis and treatment in modern ways play an important role in human health.

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