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The Modality of the Regeneration of the Intervertebral Lumbar Disc in Osteochondrosis

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The repeated studies of the intervertebral disc degeneration pathogenesis shows that there is a high degree of the neovascularization in the terminal lamellas or the periphery of the herniated content. We studied 87 postoperative intervertebral discs obtained from the patients operated in the section of Vertebrology in Republican Clinical Hospital of Orthopedics and Traumatology in January 2008 - December 2009 and after the sampling of the corpse material (lumbar vertebral segments) of 28 cases with various somatic diseases, age and sex in the Municipal Clinical Hospital "Holy Trinity". The immunohistochemical staining of the lumbar spinal artery wall with CD34 and MCT shows that at different stages of the atherosclerosis development, in the atherosclerotic plaques the mast cells are found in their degranulation phase with the release of the proinflammatory enzymes that enhance the neovascularization process in the vascular wall. Histologically the moderate degenerative changes are better visualized: a high proliferation of fibroblasts, the tissue reorganization trend of the nucleus pulposus as well annulus fibrosus, mainly in the terminal blades where there is an abundance of capillaries with the neovascularization at this level. This explains the tendency to the disk tissue regeneration.