

SOME CLINICAL MORPHOPATOLOGICAL ASPECTS OF LUMBAR INTERVERTEBRAL FORMATIONS

Cociug Adrian

Academic adviser: Zota Ieremie, M.D., Ph.D., Professor, State Medical and Pharmaceutical University "Nicolae Testemitanu", Chisinau, Republic of Moldova

Introduction: Degenerative-dystrophic damages in human spinal column are quite frequent. In 90% of the cases they manifest themselves through disorders in peripheral nervous system with growth tendency at young people, capable to work.

According to the latest information from the National Center of Public Health Statistics in the USA, persons over 45 years old often limit their activities due to pain in the thorax and lumbar part of the vertebral column, and these people constitute about 26-32% of the population of the "second age".

Structural changes in the tissue in the lumbar area of the vertebral column as a rule become irreversible with time.

Materials and methods: We studied the structure of the intervertebral disc with pathology of the vertebral column in 123 patients, who underwent surgical intervention at the Vertebrology Section of Public Medical Sanitary Institution Traumatology and Orthopedy Hospital in 2009 and compared cadaver material (lumbar vertebral segments) from 7 cases with different somatic pathologies from the Hospital „Sfinta Treime”.

Results and discussions: The nucleus pulposus is primarily affected by a series of mechanisms with disintegration of collagen fibers, fragmentation, loss of liquid, thus forming multiple crevices at the level of fiber ring, which leads to decrease of their ability to absorb the shocks, and makes them less flexible, which decreases the disc resistance significantly. One of the etiopathogenetic factors is circulation disorders of the disc irrigated by the vertebral arteries. In case of senior people, atherosclerosis at advanced stage intensifies degenerative-dystrophic changes of intervertebral disc.

Conclusions: The results obtained during this study show that normally people at the age of 40-50 years old suffer from discogenic pain, mostly female (55%), most of them accusing of discal hernia at the level of lumbar area, segment L5.

Histologically 14 patients (16,6%) have incipient forms of degenerescence of intervertebral disc with aspects of myxoid degenerescence, centrally chondroblastic with chondrocytes, in cases of 70 patients (83,3%) in medium forms of degenerescence of intervertebral disc the following were detected: fibrosed tissue, with zones of interfibrilar edema; discal cartilaginous tissue with chondrocytes in chondroblast, papillary aspect and hemorrhagic zones, hyalinization zones. In case of 39 patients (30,5%), after 51 years old in advanced forms of intervertebral disc the following were discovered: hyalinized discal cartilage, intradiscal calcifications or ossification zones, lymphocitar infiltrate.

Key words: intervertebral disc, degenerative-dystrophic changes, proliferation of fibroblasts, collagen fibers, intervertebral segments.