

CHANGE OF CARTILAGE TISSUE AT ARTHROPATHY IN DOGS

V. Klymchuk

National University of Life and Environmental Sciences of Ukraine
16, Polkovnika Potehina str., Kyiv, 03041, Ukraine

The article shows down the results of histological researches of the femoral bone's cartilage surface parts. The method of manufacture of histopreparations is described. In article also describes the microscopic changes of cartilage tissue, which was observe. It is noted that in the articular cartilage of the femur, destruction of the surface layers of the articular cartilage, disordered location of chondrocytes, destruction and lysis of the part of chondrocytes, as well as reduction of the content of glycoproteins in the intercellular substance were ebserved at knee osteoarthritis in dogs.

In connection with irrational selection work, the number of pedigree dogs with a number of genetically determined anomalies of the bone and joint system has significantly increased. Most of these congenital pathologies lead to an unstable joint condition, which creates conditions for the development of osteoarthritis (OA). OA may occur due to other causes, for example, after an injury, with age-related involution of articular cartilage, etc. Current research is the study of changes in articular cartilage and bone tissue in the dogs' treatment for articular pathology.

Aim of work: Conduct histological examination of dogs' bone tissue with articular pathology, selected directly under articular cartilage.

For histological studies, pieces of the femoral bones of the dogs were taken directly by the chin knee joint. The selected material was fixed in a goat's liquid, and then the samples were decalcified [2]. After decalcification, the samples for residues removal of the decalcifying mixture were washed with running water and poured into paraffin [3]. Cutting thicknesses 7-15 microns were obtained by using a single-sided microtome using commercial disposable knives. The resulting sections were painted with hematoxylin of Karachi and eosin [1]. Histopreparations were studied by the microscope MCX 100LED produced by Micros (Austria) at an increase from 50x to 1000x and were photographed using a Canon EOS 550D camera.

Osteoarthritis of the knee joint in dogs is characterized by expressive microscopic changes in the cartilaginous tissue that covers the articular surface of the femur.

In the articular cartilage of the femur, the destruction of the surface layers of the articular cartilage, the disordered location of chondrocytes, the destruction and lysis of the part of chondrocytes, as well as the reduction of the content of glycoproteins in the intercellular substance are observed.

Keywords: HYSTOLOGY, JOINT, OSTEOARTHROSIS, CARTILAGE TISSUE, PATHOLOGY, DOGS.