

## INFLUENCE OF SALTS OF HEAVY METALS ON THE STRUCTURE OF EPIPHYSEAL CARTILAGE

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Among the known unfavorable influences on the skeletal bone, there is reaction on epiphyseal cartilage of bones under the influence of salts of heavy metals in the organism.

To study the morphological changes of epiphyseal cartilage of skeletal bones using salts of heavy metals (chrome, zinc and lead).

**MATERIAL AND RESEARCH METHODS.** Researches are executed on 24 male-white rats of different age, which were in the stationary terms of vanadium. Depending on influence of exogenous factors animals were separated on two series: 6 control and experimental - 18 rats. Series 1 - intact rats (6 animals) which were in the ordinary terms of vanadium and were separated on three age-dependent categories (for 6 in each). Series 2 - experimental - animals (18 rats) in which the features of morphological changes were studied under the influence of salt of heavy metals. Animals were separated on three categories for 6 animals. Duration of experiment 1 month. Histological research of proximal epiphyseal cartilage of thigh-bones reviews the state of cartilaginous tissue.

**RESULTS OF PERSONAL RESEARCHES.** There are different degree violations in the structure of epiphyseal cartilage of animals which received salts of heavy metals. General width was 8, 58% less than the control at the beginning of supervision. During a month there is strengthening of negative changes in the structure of cartilage and in 30 days the figures of mitosis's are absent in the area of proliferated cells, majority of them have the blasted shell and dystrophy changes in the nucleus. The form of cages were mainly oblate, around them are plenty of connecting matter. Chondrocytes do not form columns, and their wreckages meet on all area of the cartilage. The area of destruction in experimental animals is extended by 11,30% in comparison with the control and presented by the conglomerate of tumbledown cages with considerable content of connecting tissue.

**CONCLUSION.** In the epiphyseal cartilage on a background, the use of salts of heavy metals arise deep and steady structural changes.