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EXPERIMENTAL DIABETES MELLITUS INFLUENCE ON BREASTBONE AND COSTAL COMPLEX AND ITS RESULT

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Abstract:

The purpose of the work was to study the dynamics of morphological and structural changes in the toe- nail cortex of the rats offspring with diabetes mellitus with alloxane.

Keywords: Cartilage, Alloxane, Experimental Diabetes Mellitus, Chondrocyte, Toad Rib Cortex.

RELEVANCE.

Diabetes mellitus is a series of social problems, accompanied by profound changes in the human body. In the long-term course of the disease, there are violations of peripheral microcirculation and innervation in patients [1]. The morphofunctional active point in formation of the chest is considered to be the buttock. Changes in the shape and functional structure of the chest affect the functional state of the organs of the thoracic cavity. Morphofunctional properties of breastbone-rib Complex lack of data on Ava prevention of injuries and deformities in a particular area Ava leads to serious deficiencies and errors in treatment. Carrying out scientific research in this field is not only scientific, but also practical.

All of the above will allow us to draw conclusions about the problems developed by US and the relevance of the buttock joint, because of its deformities and the prevalence of injuries and their morphofunctional basis.

The purpose of the work was to study the dynamics of morphological and structural changes in the toe- nail cortex of the rats offspring with diabetes mellitus with alloxane.

RESEARCH MATERIALS AND METHODS.

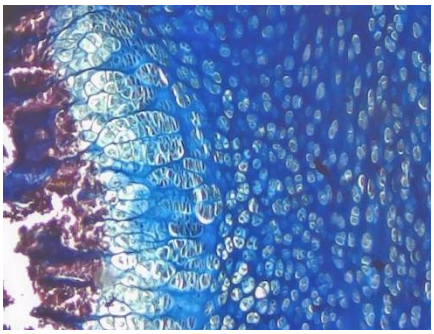
The study was conducted in 13 white lab rats weighing 800-1 30 g. Animals were kept in accordance with the standard ration (with food and water supply) in the conditions of vivarium. For the study, the animals were divided into 2 groups. The control group formed 10 rats, and the male rats were injected into them in a 3:1 ratio of 0.5 ml 0.9% sodium chloride solution once. The research group consisted of 20 rats and the male rats were 3: 1 ratio. On the fifth day of menstruation, experimental diabetes with the help of the alloxane model in rats was called.

The research materials were components of a 7-14-21-20-45-Day chest x-ray of young rats born to mothers with experimental diabetes called. In order to make a histological analysis in the study, it was necessary to obtain the toenail attachment of rats in the experimental group.

Decapitation of animals was carried out according to the rules of ethics with the help of a guillotine knife under general etheric anesthesia. For histological examination the incision was made from the buttock joint. Finished microprocessors Carl Zeiss Microscopy was seen on the GmbH microscope and Axio Lab.A1 (Germany)photo taken in the camera.

THE RESULT.

The fact is that the growing zone in all bones plays an important role in formation and growth of bones, and therefore the condition of the cartilaginous cartilage structures has been studied



Experiment.30-th day of observation.
Method of painting-Masson.
Folded in 200 times.

In the initial observation period, when Morphological Study of the focal attachment of rib cartilage to the heel for histological examination of the complex to the heel of the rats, the control animal in this period corresponds to the observation period of the normative formation of the rib cartilage from the heel side, bone formation. Control in the dynamics of growth in the early postnatal stages of ontogenesis, and the results of morphological

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studies of the ovaries in the offspring of experimental rats have shown that maternal alloxane diabetes during pregnancy and breastfeeding in the mother with diabetes leads to a change in the development of the ovaries. On the 21st day of the experiment, the main negative effect of diabetes mellitus is manifested in synchondrosis of cartilage tissues and places of attachment of the ribs in the 4-zone of bone growth.

Until 30-th day, in all four growth zones, the transitor tissue has the same architectonics. The tubule on both sides (proximal and distal) is distinguished by the same mechanism of bone formation from the growth zones of the bones. Trace chondrocytes from the main research group are not observed, in the early periods (7-14 days) they are located chaotically, individually, in pairs, in the later periods (14-30 days) small trace groups consisting of 3-4 cells of different sizes are observed. The Shape of these chondrocytes is elliptical or cylindrical, in some places round-shaped cells are determined.

Thus, in the rats children called for diabetes showed the elements that differ in isolation from the children of rats in the control group. It is possible to clarify that they have a low weight, good development of subcutaneous fat clechat. It was also found out that the period of focal activity was much longer from the birth of animals developed in the fetus in experimental diabetes conditions.

CONCLUSIONS:

The significant change in mineral metabolism and bone markers in the developed generation as a result of adverse effects of experimental diabetes in the pregnancy period was found to be more pronounced in the late (30-45 days) periods of observation.

The most significant changes in the rat's offspring in conditions of diabetes of the mother's organism occur in the tissue of growth zones cartilage, because it was significantly thinner, and, the number of cells was decreased.

The data obtained indicate that during pregnancy there was a delay in development processes of all structural formations of the toenail growth zones of the offspring of rats with diabetes mellitus of the mother's organism.

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