

for the SD/RCS rats were $0.73 \pm 0.1 \text{ mm}^3$ and $0.58 \pm 0.3 \text{ mm}^3$ respectively ($n = 6$). These first results let us conclude that the dynamic cortical reorganization in rats may not be the main factor promoting recovery of function after facial nerve injury and repair.

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Changes of biomechanical indexes in bones of rats under the influence of morphine hydrochloride

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36 white rats – female of reproductive age weighing 120-130 g were examined in order to investigate the influence of drugs on bone system. The animals were made intraperitoneal injections of 30 mgm/kg of morphine hydrochloride solution a day. The duration of the experiment was 30 days. When the period of the experiment was over the animals were decapitated, the shoulder bone was extracted and with the help of the loading machine the breaking point, bending moment and resistance moment were determined. - As a result of the experiment it was revealed that the firmness characteristics of the bone tissues lessened by 5,56 – 18,03 % in comparison with test group of rats. - Simultaneously the balance of the main macroelements of bones – calcium and phosphorus – was determined in the experimental group. Given insignificant lowering of the breaking point and bending moment, there was sharp lessening of resistance moment during, the whole experiment. It is connected with the diminution of mineral saturation of bones, decrease and with the changes in quality composition. - Thus lessening of firmness characteristics of bones under the influence of morphine hydrochloride was the result of toxic influence of the drug on the whole organism as well as the skeleton bones.

The regularities of chemical composition's changes in the different bones of rats' skeleton because the effect of gravity overloads

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The research of chemical compositions' properties in different types' bones (flat, spongy, tubular) under the conditions of transverse gravity overloads effects to the immature Wistar's rats was an object of investigations. - The procedures of overloads: a value – 9g, duration – 10 minutes, the multiplicity - every day during 10 and 30 days. The percentage of the water, organic and nonorganic substances were analyzed in the hip bone, humerus, tibia, III lumbar (L_3), IV (Th_4) and XI (Th_{11}) thoracic, VI cervical (C_6) vertebrae. - The increasing of nonorganic substances in Th_{11} by 6,5% ($p < 0,05$), Th_4 by 5,03%, C_6 by 3,07%, in humerus by 42% ($p < 0,05$) was detected after 10 days of experiment. The level of organic substances was reduced in comparison with the control data in L_3 by 6,66%, in Th_{11} by 3,29%, in C_6 by 7,40% ($p < 0,05$). In Th_4 and humerus the increasing of the organic substances was detected by 3,58% and 6,03% correspondingly. The changing of the water content had the tendency to drop in comparison with the control data, the greatest deflections were detected in the Th_4 (6,08%) and humerus (6,05%) ($p < 0,05$). - The similar changes were found after 30 days of experiment. The maximal mineralization in Th_4