

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
ВИЩИЙ ДЕРЖАВНИЙ НАВЧАЛЬНИЙ ЗАКЛАД УКРАЇНИ
«БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



МАТЕРІАЛИ

101 – ї

підсумкової наукової конференції

професорсько-викладацького персоналу

Вищого державного навчального закладу України

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У збірнику представлені матеріали 101 – ї підсумкової наукової конференції професорсько-викладацького персоналу вищого державного навчального закладу України «Буковинський державний медичний університет» (м. Чернівці, 10, 12, 17 лютого 2020 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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solutions (the double-layer vesicles). The J-type associates are expected in the configuring dimethylformamide solution, inner-zeolite channels and in the Langmuir-Blodgett films.

Kushnir O.Yu.

GLUCOSE TOLERANCE PROFILES IN RATS WITH ALLOXAN DIABETES

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Alloxan has been used as a diabetogenic agent to induce diabetes. It selectively induces pancreatic β -cell death.

The objective was to determine the influence of alloxan monohydrate on glucose level in the blood plasma of rats.

The research was performed in compliance with the Requirements of work using experimental animals (1977) and the Council of Europe Convention on the Protection of Vertebrate Animals used in experiments and other scientific purposes (18 March 1986). The experiments were carried out on 30 sexually mature male albino rats with the body mass – (0,18 – 0,20) kg. Alloxan diabetes was simulated via injecting the rats with a 5% solution of alloxan monohydrate intraperitoneally in the dose of 170 mg/kg of body weight. After a 12-h fast, a 75-g OGTT (oral glucose tolerance test) was performed with 0, 30, 60, and 120 min sampling for plasma glucose levels measurements. The rats were sacrificed on the 7th day of the experiments in accordance with the ethical treatment of animals. Statistical analysis of results was conducted by Student's test. Sufficient level considered probability differences $p \leq 0,05$.

In accordance with results rats were classified into three groups according to the glucose tolerance status as having normal glucose tolerance (NGT) when fasting plasma glucose (FPG) was <7.0 mmol/L (100 mg/dL) and 2-h post-load <7.8 mmol/L (140 mg/dL) – this group included rats without alloxan injection; impaired glucose tolerance (IGT) when FPG was <5.6 mmol/L (100 mg/dL) and 2-h post-load was 7.8–11.0 mmol/L (140–199 mg/dL) and diabetes when FPG was >7.0 mmol/L (126 mg/dL) and/or 2-h plasma glucose >11.1 mmol/L (200 mg/dL) [In accordance to the American Diabetes Association (ADA) criteria]. In group of IGT 2-h post-load plasma glucose level was 28% higher in comparison to the respective index of the control. Rats with diabetes demonstrated FPG higher on 112% as well as 2-h post-load plasma glucose level which was increased on 97% than control indices respectively.

These results demonstrated that alloxan monohydrate has an action with formation of different glucose tolerance profiles in rats with alloxan diabetes.

Lenga E.L.

EFFECTS OF MELATONIN ON THE CONTENT OF REDUCED GLUTATHION IN THE BLOOD UNDER TOXIC HEPATITIS

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Every year oxidative load on the body of contemporary humans is constantly increasing. In the fight to maintain oxidant / antioxidant balance, a prominent place belongs to the glutathione system, which is active in all organs and tissues. However, under conditions of intensification of peroxidation processes, in order to enhance and maintain the activity of this system, it is advisable to use drugs with antioxidant properties. One of these is the epiphyseal hormone melatonin.

The objective of the study was to determine the effect of melatonin on the content of reduced glutathione reduced in the blood of rats under toxic tetrachloromethane hepatitis.

The experiments were performed on nonlinear adult male rats weighing 180 ± 10 g. Animals were kept under artificial lighting with periods of 12 h of light: 12 h of darkness (12C: 12T), which corresponds to the normal function of the epiphysis. After a five-day stay under appropriate lighting conditions, the rats were divided into groups: I - control; II - animals with toxic hepatitis