МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»

М А Т Е Р І А Л И

104-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького персоналу
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ
06, 08, 13 лютого 2023 року

Конференція внесена до Реєстру заходів безперервного професійного розвитку, які проводитимуться у 2023 році №5500074

Чернівці – 2023

Povar M.A.

THE NATURE OF THE RELATIONSHIPS BETWEEN THE MORPHO-FUNCTIONAL STATE OF THE LIVER AND THE SPLEEN UNDER THE CONDITIONS OF ISCHEMIA-REPERFUSION INJURY OF THE BRAIN

Ya.D. Kirshenblat Department of Physiology
Bukovinian State Medical University

Introduction. According to literature sources, even short-term disturbances of blood supply to the brain lead to significant pathohistological changes in the liver and the spleen, which, in turn, cause a violation not only of their functioning, but also of the immune state of the body, as well as aggravate the course of the underlying disease. In the recent years, a sufficient number of scientific facts have been accumulated regarding the nature of the relationship between the morpho-functional state of the liver, the spleen and other internal organs and the brain under the conditions of ischemic-reperfusion injury.

The aim of the study. The purpose of the work is to analyze the literature data on the relationship between ischemic-reperfusion damage of the brain and the morpho-functional state of the liver and the spleen.

Material and methods. The analysis of scientific literary sources (48 articles) describing the relationship between the liver and the spleen in ischemia-reperfusion injury of the brain.

Results. Ischemia-reperfusion of the brain leads to the liver damage and dysfunction due to excessive accumulation of reactive oxygen species, energy deficit, and activation of apoptosis and inflammatory response. One of the ways of the liver's response to the brain ischemia-reperfusion is considered to be increased synthesis by the liver of enzymes involved in the metabolism of toxic glutamate, which, as is known, is formed in excessive amounts in the ischemic zone as a result of the activation of the glutamate cascade. However, not only ischemia-reperfusion injuries of the brain can affect the indicators of the morphofunctional state of the liver, but also ischemia-reperfusion of the liver can affect the activity of certain neuronal phenotypes in the brain of rats. The spleen belongs to the lymphoid organs with the largest pool of immunological cells, so it is clear that after ischemia-reperfusion of the brain, the last are directed to areas of inflammation in the damaged brain tissues. Activation of the spleen under these conditions occurs with the participation of the sympathetic nervous system. Other studies strongly demonstrate that the spleen initiates immune responses that exacerbate ischemic brain injury.

Conclusions. The analysis of the scientific facts available in the literature proves the presence of two-way relationships between ischemic-reperfusion injury of the brain and the morpho-functional state of the liver and the spleen.

Semenenko S.B.

STUDY OF THE INFLUENCE OF CHRONORHYTHMS ON THE PHYSIOLOGICAL FUCTIONS OF THE HUMAN BODY

Ya.D. Kirshenblat Department of Physiology
Bukovinian State Medical University

Introduction. In the recent years, many scientific works have been written about the role of sleep, the endogenous system of the circadian rhythms and its main regulator - melatonin in the development and progression of obesity. Currently, the number of people with obesity is increasing everywhere, which is dangerous not only in itself, but also as a risk factor for the development of metabolic syndrome.

The aim of this study is the important aspects of the problem of the circadian rhythms disorders and their relationship with obesity.

Material and methods. Literary sources of the foreign and domestic authors were used in the work, and their systematic analysis was carried out.

Results. Melatonin is the main hormone of the pineal gland, which is prone to diurnal periodicity with maximum synthesis in the dark time of day. The main function of this hormone is a modulating effect on the circadian organization of physiological processes and ensuring the