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БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»

М А Т Е Р І А Л И

105-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького персоналу
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ
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Матеріали підсумкової 105-ї науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) – Чернівці: Медуніверситет, 2024. – 477 с. іл.

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У збірнику представлені матеріали 105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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that due to the improvement of protocols of early diagnosis and resuscitation, timely detection of hemodynamic and respiratory dysfunctions; the success was achieved in the 21st century.

The pathophysiology of the course of sepsis focuses on the manifestation of disturbances in the system of cardiomyocytes and hemodynamics. In particular, the most typical changes are characterized by alternating hypertension in the antihypertensive type of blood circulation. Despite the inotropic and voluntary support of mechanisms for stabilizing hemodynamics, the course of sepsis is characterized by dysfunction of the microcirculatory channel. The violations of microcirculatory blood flow are considered a key link in the pathogenesis of sepsis-induced organ failure – insolvency. However, the problem of microcirculatory channel organization in dopamine-dependent sepsis-induced hypotension (SIH) has not been adequately reflected.

The aim of the study. One of the methods of studying the state of microcirculation is to evaluate the micro vascular channel of the sublingual area. The purpose of the research is to investigate the response of the microcirculatory channel to the action of the reosorbilact at dopamine-dependent compensation for sepsis-induced hypotension.

Material and methods. 28 patients with sepsis-induced hypotension were studied, who received reosorbilact in a complex treatment; 25 patients were under control research (with systemic inflammatory response syndrome, according to ICD-10: SIRS, ICD-10: R-65.2). Microcirculation was evaluated by sublingual mucosal biomicroscopy.

Results. Methodology of objectification of microcirculation studies assumes the stability of hemodynamic in the interval of observation. The implementation of the research project took place after the creation of a hemodynamic plateau, for example, with SAT (up to 70 mmHg), with adequate volume of liquid support. The changes in microcirculation, in the use of reosorbilact between patients with systemic inflammatory response syndrome (II gr.) and compensated sepsis-induced hypotension (IV gr.) are characterized by: according to the De Backer index, the difference between II and IV gr. was 6.4% ($P < 0.05$); the difference in the total density of vessels was 6.6% ($P < 0.05$); density of perfused vessels in patients with IV gr., unlike in patients with II gr., after the introduction of the reosorbilact, was changed by 15.0% ($P < 0.05$); by the proportion of perfused vessels, the difference between II and IV gr. amounted to 16.4% ($P < 0.05$); the index of micro vascular blood flow after the introduction of reosorbilact in patients with CCS and patients with SIG was varied by 18.2% ($P < 0.05$); The index of heterogeneity of blood flow varied by 42% ($P < 0.05$).

Conclusions. The microcirculation of violation were detected in the patients with purulent-septic complications in the study of the microcirculatory bed of the sublingual region, which characterized by strain of the vascular bed in terms of blood flow heterogeneity index, density and functions of the placed blood vessels, blood supply quality under the condition of dopamine-compensated sepsis-induced hypotension. The reosorbilactimproves the functional capacity of the microcirculatory bed in patients with sepsis-induced hypotension, however, the degree of compensation for generalized microcirculatory parameters only reaches 83% ($P < 0.05$) from the level of indicators in patients with systemic inflammatory response syndrome.

Malaiko S.S.

INTRAABDOMINAL HYPERTENSION AS A RISK FACTOR OF ACUTE KIDNEY DAMAGE IN GERIATRIC PATIENTS AFTER EMERGENCY ABDOMINAL SURGERY

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Introduction. Many studies have shown an association between intra-abdominal hypertension and acute kidney injury (AKI) in the general patient population. But geriatric patients are a special cohort of patients for whom the critical values of intra-abdominal pressure (IAP) and intra-abdominal perfusion pressure (IAPP) may differ and are currently not defined.

The aim of the study. To evaluate the connection between intra-abdominal pressure (IBP) and intra-abdominal perfusion pressure and the occurrence of acute kidney injury in geriatric patients after urgent abdominal surgery.

Materials and methods. In a prospective single-center study, 40 patients older than 60 years who underwent surgery for peritonitis and were transferred to the intensive care unit were included. Daily in the postoperative period, the presence and stage of AKI was determined according to KDIGO criteria, intra-abdominal pressure and intra-abdominal perfusion pressure were measured. IAP was measured through bladder pressure. IAP was defined as the difference between mean arterial pressure and IAP in mmHg.

Results. Among the examined patients, 26 developed AKI (frequency 65%). The median IAP values in patients with AKI and without AKI were 14 (10; 20) cmH2O and 10 (6; 13) cmH2O respectively (p=0.005). IAPP in patients with AKI, respectively, was significantly lower 64 (54; 80.7) than in patients without AKI 82.2 (65.8; 112.1; p=0.005). According to the results of the logistic regression analysis, a relationship between high IAP values and the development of acute kidney injury was revealed: the odds ratio (OR) was 2.33 with the value of the criterion x2=10.17 (p=0.00143). The odds ratio between the reduction of IAPP and the development of AKI was 5.39 with the value of the criterion x2=5.81 (p=0.015).

ROC analysis showed that IAP>13 cmH2O is the threshold level for the development of AKI with a sensitivity of 52.2% and a specificity of 80.8%, with an area under the AUC curve of 0.7 (p<0.002). IAPP < 81.1 mmHg is critical for the development of AKI, with a sensitivity of 75% and a specificity of 65.2%, with an area under the AUC curve of 0.696 (p<0.005).

Conclusions. High values of IAP and reduction of IAPP are associated with the occurrence of acute kidney injury in geriatric patients after urgent abdominal surgery. IAP is a less sensitive but more specific marker of the development of AKI than IAPP.

Petrynych V.V.

THE INFLUENCE OF THE RATE OF ACETYLATION ON THE STATE OF THE BEHAVIORAL RESPONSES OF RATS IN CONDITIONS OF LEAD INTOXICATION

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Introduction. There is speculation that the marker predisposition to action of the unfavorable factors of the environment, including the salts of heavy metals, is the type of acetylation. However, the role of individual genetic predisposition as the reasons for the sensitivity of the organism to the effects of toxic chemicals, including heavy metals, today was studied not enough.

The aim of the study: to study the changes of behavioral reactions in rats with different types of acetylation in the conditions of acute intoxication of lead acetate.

Material and methods. Experimental studies were conducted on white conventional autbred sexually mature male rats, which were divided into two groups: with «quick» and «slow» type of acetylation by the test with amidopiryn. Subacute intoxication was modeled by means of intraperitoneal injection of lead acetate to experimental animals at doses of 2,5 mg/kg (1/100 DL50) and 15,5 mg/kg (1/16 DL50) for 28 days. Isotonic solution of sodium chloride (intraperitoneally) was injected to control groups of animals instead of lead acetate. In the dynamics of intoxication were studied behavioral reactions in rats: horizontal and vertical motor activity, mink reflex, emotional reactivity and integrated behavioral activity.

Result. It is established that the introduction of rats lead acetate in the dose of 2,5 mg/kg (1/100 DL 50) accompanied by inhibition of indicators of behavioral reactions with 14 days of the experiment, the «slow» and «quick» acetylation to achieve maximum to the end of the experiment. Increasing the dose of the toxicant to 1/16 DL 50 causes early behavioral changes: with 7 days of the experiment, the «fast» acetylation. More expressive changes in indicators of behavioral reactions of the toxicity of lead acetate in doses 1/100 DL 50 and 1/16 DL 50 to the end of the experiment observed in the «quick» acetylation.

Conclusions. The «quick» type of acetylation is a susceptibility marker to lead acetate toxic action under conditions of subacute experiment on mature rats.