МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

М А Т Е Р І А Л И

106-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
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Матеріали підсумкової 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) – Чернівці: Медуніверситет, 2025. – 450 с. іл.

У збірнику представлені матеріали 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) зі стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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Materials and methods. 14 women, whose pregnancies were complicated with IUGR, were included in study group. The presence of IUGR was confirmed by ultrasound fetometry in the 3rd pregnancy trimester, 30-36 weeks of gestation (estimated body weight of the fetus was below 10th percentile for current pregnancy term). The control group consisted of 13 women who had uncomplicated pregnancies. All patients delivered their children vaginally in pregnancy term over 37 weeks. The cases of severe fetal distress which required a caesarian section, obstetrical forceps or vacuum extraction of the fetus, were excluded from the study.

The umbilical blood was taken immediately after birth of a baby from the placental side of clamped and cut umbilical cord. The concentrations of melatonin were assayed using ELISA kit manufactured by IBL (Germany), the results were estimated using Mann-Whitney U-test.

Results. It's been established that the mean concentration of melatonin in umbilical blood is significantly lowered in case of IUGR (7,50 pg/ml, 95% confidence interval for mean 3,0818 – 13,4042 pg/ml) comparing to normal pregnancies (14,60 pg/ml, 95% confidence interval for mean 9,58 – 23,79 pg/ml, P=0,00101). No significant difference in daytime of delivery was found between the groups.

Conclusions. The concentration of melatonin in umbilical blood at labor is significantly lowered in case of IUGR, comparing to normal pregnancies. This fact, as we consider, is caused by altered production of melatonin by placenta. Therefore, the protective action of melatonin for the fetus at labor is decreased in case of IUGR.

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HEMODYNAMIC INDICATORS IN WOMEN WITH THREATENED ABORTION

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Introduction. Miscarriage accounts for 20-25% of all pregnancies, and there is no tendency to decrease the level of this problem. The pathogenesis of early pregnancy loss includes the activation of the hemostasis system and is usually realized due to the pathology of the vascular endothelium, the development of placental infarctions. Detection of such changes of women with a history of spontaneous abortion can serve as predictors of a possible threat of spontaneous abortion and help in the implementation of preventive measures aimed at preserving the desired pregnancy.

The aim of the study. The aim was to assess changes in hemodynamic indicators in women with threatened abortion against the background of endothelial dysfunction.

Materials and methods. We examined 2 groups of women. The first (main) group consisted of 60 women with miscarriage who were undergoing inpatient treatment in the gynecological department of the Chernivtsi Regional Perinatal Center in the period from 2021-2022. The control group included 30 patients with uncomplicated pregnancies in the period of 6-12 weeks of gestation. We established a reliable increase in the concentration of endothelin-1 by 3-5 times and a decrease in the level of nitric oxide by 1.7-2 times and E-selectin by 1.3-1.6 in women of the main group.

Results. We found that women with a threat of miscarriage have a tendency to decrease the number of platelets. Analysis of the platelet aggregation activity of patients with a threat of early termination of pregnancy revealed a small but significant increase in platelet aggregation, in fibrinogen and in prothrombin index compared to the indicator during a physiological pregnancy (Table).

Table

Data of hemostasiological studies in women of the examined groups (M±m)

Indicator	I group, n=60	II group (the control), n=30
Number of platelets, g/l	239,5±16,5	286,3±22,2
Fibrinogen, g/l	4,63±0,66	2,98±0,51
Prothrombin index, %	108,1±3,3	90,4±8,3
Platelet aggregation, %	40,2±0,3	39,5±0,4

In the representatives of group I, platelet diameter, perimeter and, accordingly, all derived indicators - perimeter, area and volume - were characterized by similar changes. of the studied cells significantly exceeded the corresponding values in the control group. Identified disorders in the hemostasis system indicated an increase in blood coagulation potential.

In women with a threat of abortion at the gestation period of 8-12 weeks, the percentage of "resting" platelets was (56,0±6,4)%; (27,0±5,7) % of cells are represented by echinocytes with short processes (type II); (11,0±4.0 % belong to type III, and degeneratively changed cells made up (6,0±3,1)%. That is, there is a tendency to increase the number of type IV platelets in group I. There was no statistically significant difference between the percentage of morphological types of platelets in the studied groups.

Conclusions. The development of endothelial dysfunction, changes in the morphometric parameters of circulating platelets and coagulogram indicators cause a pathological decrease in peripheral vascular resistance in the uterine, spiral and radial arteries, which together significantly worsens the prognosis for early pregnancy.

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THE IMPACT OF STRESS ON REPRODUCTIVE HEALTH AND FERTILITY

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Introduction. Stress has been universally recognized as an integral part of life. It's a state of mental or emotional strain resulting from exceptionally high stakes, demanding circumstances, or challenging events. Regardless of its origin, stress can have profound impacts on various aspects of your health, including reproductive health. Experts observe that Russia's war against Ukraine led to a significant decline in the demographic situation and caused a severe impact on the reproductive health of women.

The aim of the study. To assess and predict the impact of war-related stress on women's reproductive health.

Material and methods. Female reproductive health was assessed through menstrual cycle regularity and hormone levels (including follicle-stimulating hormone (FSH), luteinizing hormone (LH), estrogen, and progesterone), measured through blood samples collected on the third day of the menstrual cycle. A significant negative correlation was found between both subjective and objective stress measures and regularity of menstrual cycles Women with higher stress levels, as indicated by higher scores and flattened diurnal cortisol slope, reported more irregular menstrual cycles. Further, stress measures were significantly associated with hormone levels. Higher stress levels were correlated with higher FSH and LH levels and lower estrogen and progesterone levels ($p < 0.05$ for all correlations).

Results. There is an increase in the frequency of diseases of the female reproductive system, namely: menstrual cycle disorders, abnormal uterine bleeding, premature menopause, hyperandrogenism, severe climacteric disorders. Due to severe negative stressor consequences caused by the war in Ukraine, the number of younger women with premature ovarian failure syndrome has increased, as well as the number of perimenopausal women with severe manifestations of menopause.

Taking into account the difficult social and domestic conditions of some Ukrainian women and the impossibility of seeing a doctor, it is important to prescribe initial therapy for stress-induced consequences of reproductive disorders. The drugs of choice in treatment are modern estrogen-progestagen preparations, the effectiveness and safety of which has been proven by numerous scientific studies. Patients who complain of manifestations of concomitant pathology should be referred to the relevant specialists.

Conclusions. In conclusion, this study aims to expand the current understanding of the relationship between stress and reproductive health, including fertility. Furthermore, it may provide insights that can help healthcare professionals develop better strategies to manage stress and improve reproductive health outcomes for their patients. The impact of war-related stress on the