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



## МАТЕРІАЛИ

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Матеріали 100 — ї підсумкової наукової конференції професорськовикладацького персоналу вищого державного навчального закладу України «Буковинський державний медичний університет», присвяченої 75-річчю БДМУ (м. Чернівці, 11, 13, 18 лютого 2019 р.) — Чернівці: Медуніверситет, 2019. — 544 с. іл.

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У збірнику представлені матеріали 100 -ї підсумкової наукової конференції професорсько-викладацького персоналу вищого державного навчального закладу України «Буковинський державний медичний університет», присвяченої 75-річчю БДМУ (м.Чернівці, 11, 13, 18 лютого 2019 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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підвищення ефективності програми ЗІВ. Багато авторів рекомендують послідовне використання лапароскопії та ЗІВ, що припускає початкове застосування ендохірургії, а при її безуспішності впродовж 1-2 років після операції – проведення ЗІВ. Однак інші фахівці ставлять під сумнів доцільність хірургічного напряму в лікуванні трубного безпліддя та рекомендують при будь-яких варіантах ураження маткових труб відразу застосовувати ЗІВ.

## Yuryeva L.M. ASSESSMENT OF EFFECTIVE PRE-INDUCTION PREPARATION OF THE UTERINE CERVIX APPLYING FOLEY CATHETER

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During recent years the rate of labour induction has increased in the whole world. In developed countries one out of four neonates is born in time after induction of labour. One of the leading indications for pre-induction and induction of labour is prolonged pregnancy. Pre-induction and induction of labour is aimed to prevent prolonged pregnancy, as well as unfavourable intra- and postnatal complications. A progressive growth of the risk of possible complications increases since the 41<sup>st</sup> week of gestation, in case of prolongation of pregnancy the possibility of complications from the mother's and fetus side 15,-2 times increases.

Favourable outcome of labour is mostly determined by the readiness of a woman's organism for labour and initial condition of the uterine cervix. Therefore, timely and adequate preparation of pregnant women with prolonged pregnancy for labour, that is, achieving the effect of "mature" uterine cervix enables to expect uterine contractions without stimulation and decrease considerably the frequency of possible complications.

Today there are a number of mechanical methods to prepare the uterine cervix for labour including MEMBRAINSWEEP (digital detachment of the fetal membranes), balloon devices (double balloon, Foley catheter), laminaria, and hygroscopic dilators. In every particular case mechanical methods are chosen individually depending on obstetrical and clinical situations.

Advantages of balloon devices use are their efficacy comparable with pharmacological methods; low risk of uterine hyperstimulation; low risk of fetal distress syndrome; lack of side effects; lack of evidential base concerning a high risk of development of infectious complications (chorioamnionitis, endometritis, neonatal infection). In comparison with other mechanical methods it is the most economic. In the WHO recommendation letter (February 2018) balloon catheters are recommended to be used to induce labour including patients with uterine scar.

Therefore, the objective of the study was to assess the efficacy of pre-induction preparation of the uterine cervix by means of Foley catheter in women with prolonged pregnancy.

The retrospective analysis of 52 case records of pregnant women and women in childbirth and labour case histories was made on the basis of the Municipal Clinical Maternity Home  $N_{2}$  during the period 2014-2016.

The criteria to assess the efficacy of the method were maturation of the uterine cervix, beginning of uterine contractions without stimulation, the need of additional methods of induction, frequency of labour through the natural maternal passages, intranatal complications, frequency of surgical childbirth (cesarean section, vacuum extraction).

Prolonged pregnancy was the indication to perform pre-induction preparation in 100% of the examined women. In 65,4% of cases pre-induction was performed in the term of pregnancy up to 41 weeks, in 34,6% - after 41 week. The initial assessment of the uterine cervix readiness according to Burnett scale was 4,7±0,9 points: in particular, «immature» uterine cervix was diagnosed in 78,8% of pregnant women, «insufficiently mature» - in 21,2%. After application of Foley catheter in 71% of women the uterine cervix reached the optimal degree of maturation of 8 points and more, in 3,9% the effect of pre-induction was absent. Spontaneous onset of uterine contractions during 12 hours after application of the catheter was determined in 38,5% cases. 57,8% of pregnant women underwent induction of labour activity by means of amniotomy, in 38,5% labour was stimulated by



Oxytocin. In 69,2% labour was through the natural maternal passages; in 25,8 % – by means of cesarean section, in 7,6%- vacuum-extraction of the fetus.

Application of Foley catheter is an effective method of pre-induction preparation of the uterine cervix for labour. High frequency of surgical labour (25,8%) is indicative of the necessity to revise the issues concerning the beginning of pre-induction and application of combined methods to prepare the uterine cervix for labour.

## Yasnikovska S.M. MODERN ASPECTS TO ASSESS THE CONDITION OF MOTHER-PLACENTA-FETUS FUNCTIONAL SYSTEM

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Variety of disorders in the conditions of the mother-placenta-fetus functional system (MPFFS), frequency, character and severity of complications for mother and fetus, prevailing disorders of placental functions depend on the term of gestation, power, duration and character of harmful factors effect, the stage of development of the fetus and placenta, the degree of manifestation of MPFFS compensatory-adaptive possibilities.

The objective of our study was to make a systemic analysis of modern literary data concerning assessment of the condition of the mother-placenta-fetus functional system.

Disorders in MPFFS are found by means of examination of hemodynamic processes occurring in it (Doppler examination of the blood flow rate curves in the uterine arteries, spiral arteries, umbilical artery, median cerebral artery, fetal aorta).

To prevent unreasonable aggressive obstetrical tactics, especially in cases of preterm pregnancy, the diagnostic test with  $\beta$ -adrenergic agonist is made for the patients with diagnosed centralization of the fetal circulation (decreased index of the vascular resistance in the uterine artery system against the ground of their increase in the uterine artery, spiral artery and/or umbilical artery and fetal artery) according to L.B. Markin's recommendations. On the basis of the analysis of the results of a combined use of USD and cardiotachography methods of examination the scale of assessment of MPFFS was elaborated. The suggested algorithm of pregnancy management under conditions of homeostasis disorders in the MPFFS is of a special attention. Clear keeping to it excludes the possibility of miscarriage in case of progressing of fetal-placental dysfunction.

A satisfactory condition of the MPFFS (21-26 points) assumes the assessment of MPFFS condition 10 days later and initiation of therapy depending on the availability and character of another obstetrical pathology and comorbid diseases. A compensated conditions of the MPFFS (15-20 points) - hospitalization, assessment of MPFFS condition every 5 days and dynamic observation in case of isolated disorder of the uterine-placental circulation (without critical signs) at the term of pregnancy up to 34 weeks. A comprehensive therapy of MPFFS condition disorders is administered in case of isolated disorders of the fetal-placental circulation (irrespective the term of pregnancy), and in case of isolated decrease of the uterine-placental circulation or combined decrease of the uterine-placental circulation and fetal-placental circulation after 34 weeks of pregnancy. In case of term pregnancy a woman is prepared for labour. Sub-compensated condition of the MPFFS (9-14 points) requires hospitalization and assessment of MPFFS condition in a day, intensified therapy of MPFFS disorders and prolongation of pregnancy. When the signs of fetal circulation centralization are available diagnostic test with Salbutamol is made. In case a positive result is obtained MPFFS condition is assessed every day; the therapy is intensified and pregnancy prolonged; preparation for labour is initiated irrespective of the term of pregnancy. In case the result is negative preterm labour is possible (in the nearest 24-48 hours) considering the term of gestation, dynamics of fetus condition, readiness of a woman's organism for labour, degree of severity of another obstetrical pathology. Decompensated condition of the MPFFS (less than 9 points) requires hospitalization; compulsory diagnostic test with Salbutamol. In case the test is positive, the signs of critical disorders of the fetal-placental circulation are lacking, the term of pregnancy before 34 weeks,