ISSN 2521-1455 (Print)
ISSN 2523-4250 (Online)

DOI: 10.21802/artm.2024.1.29.278
UDC 618.5-089.888.61

FEATURES OF THE PHYSIOLOGY OF THE POSTPARTUM PERIOD AFTER CAESAREAN SECTION

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Abstract. The main principle of perinatal obstetrics is to ensure the health of the mother, fetus and newborn, which in some cases requires quick and gentle delivery. Therefore, during the last decades, cesarean section (CS) in obstetric practice has become a tool that allows you to preserve the health of both the mother and the child.

Despite its wide distribution, CS is classified as a category of complex operations with a high frequency of postoperative complications (3.3%-54.4%), which are associated with the intervention technique, obstetric and neonatal reasons. Potential structural and functional complications include: the risk of pulmonary, gastrointestinal and vascular complications; postoperative pain and discomfort; pelvic organ prolapse; posture change; pelvic floor dysfunction; weakness of the abdominal wall; diastasis of rectus abdominis muscles; umbilical hernia; general functional limitations.

Scientific progress in medicine, social and cultural changes have led to fundamental transformations in the attitude to CS among women and doctors. In fact, the consensus regarding indications for caesarean section has changed in many countries, now including psychosocial factors such as anxiety about childbirth or the mother's desire for caesarean section in the absence of any medical indication.

The postpartum period is a critical, but often overlooked, period in the lives of new parents. According to the WHO, the majority of maternal and newborn deaths occur during this period, so proper management and care of parents and newborns is vitally important.

The postpartum period is usually divided into three separate but continuous phases: acute phase (early postpartum period) - 24 hours immediately after childbirth; subacute phase (late postpartum period): can last 2-6 weeks after childbirth; late phase - can last from 6 weeks to 6 months after childbirth.

The postpartum period is characterized by a wide range of new states of women's life and increased sensitivity to external factors. The whole range of postnatal changes can be considered as an integrative combination of psychological, physiological and endocrine factors that affect the physical and mental activity of women, as well as determine their relationship with the child.

Therefore, a caesarean section should be performed according to indications with a mandatory justification.

The presence of a postoperative scar in women who underwent an abdominal delivery causes changes in the postpartum period in the form of a specific limitation of mobility during its formation. This aspect is all the more important from the point of view of the onset of future pregnancies, which requires the formation of a full-fledged elastic strong scar on the uterus and soft tissues.

The formation of a scar in the postpartum period, in connection with the need for care and feeding of the child, changes as a result of sleep and rest regimes, additionally increases the metabolic, physical, psycho-emotional load, which causes pressure on the adaptive capabilities of the regulatory systems of the woman's body against the background of reconstruction and recovery structural and hormonal components.

A woman's condition directly affects her ability to care for and raise a child, return to work and social activity, as well as the quality of life, both personally and within the framework of the environment. Therefore, certain recovery measures are necessary for their normalization as soon as possible.

Keywords: cesarean section, pregnancy, postpartum period, delivery, obstetric strategy, physical therapy, occupational therapy, multidisciplinary approach, rehabilitation.

Introduction. The main principle of perinatal obstetrics is to ensure the health of the mother, fetus and newborn, which in some cases requires quick and gentle delivery. Therefore, during the last decades, cesarean section (CS) in obstetric practice has become a tool that allows you to preserve the health of both the mother and the child [1, 2].

In European countries, caesarean section increased from 15% to 22% over the last 20 years [1, 6], and in Ukraine from 16% in 2009 to 24% in 2019 [3, 4].

ISSN 2521-1455 (Print)
ISSN 2523-4250 (Online)

Among the reasons for the increase in the frequency of CS, experts cite the fear of pain in women, the convenience of this approach for medical professionals (because CS can be planned, perinatal risks for the child can be reduced, more funds can be obtained from insurance payments), as well as women's low awareness of the consequences and late complications of CS for health [5, 6].

Despite its wide distribution, CS is classified as a category of complex operations with a high frequency of postoperative complications (3.3%-54.4%), which are associated with the intervention technique [1, 5], obstetric and neonatal reasons (polyposis, fetal macrosomia, obesity, late gestosis, varicose veins of the pelvic organs, symphysitis. Potential structural and functional complications include: the risk of pulmonary, gastrointestinal and vascular complications; postoperative pain and discomfort; pelvic organ prolapse; posture change; pelvic floor dysfunction (involuntary urination and defecation, organ prolapse, hypotonus, weak proprioception and dysfunctional atrophy); weakness of the abdominal wall; diastasis of rectus abdominis muscles; umbilical hernia; general functional limitations [7, 8].

The aim of the study. To conduct an analysis of literary and scientific sources to identify unresolved issues of cesarean section in obstetric practice to improve the functional capabilities of women and their quality of life in the context of postpartum physical and mental changes.

Research methods. Analysis of special and scientific-methodical literature.

Research results. Scientific progress in medicine, social and cultural changes have led to fundamental transformations in the attitude to CS among women and doctors. In fact, the consensus regarding indications for caesarean section has changed in many countries, now including psychosocial factors such as anxiety about childbirth or the mother's desire for caesarean section in the absence of any medical indication [9, 10].

The postpartum period is a critical, but often overlooked, period in the lives of new parents. According to the WHO, the majority of maternal and newborn deaths occur during this period, so proper management and care of parents and newborns is vitally important [11, 12, 13].

The postpartum period is usually divided into three separate but continuous phases [14]: acute phase (early postpartum period) - 24 hours immediately after childbirth; subacute phase (late postpartum period): can last 2-6 weeks after childbirth; late phase - can last from 6 weeks to 6 months after childbirth [15].

The duration of the late phase depends on the recovery of muscle tone and connective tissue in the postpartum period. Physiological changes that occur in the late phase are, as a rule, very gradual and barely noticeable: increased elasticity of ligaments, which can persist for 4-5 months after childbirth; risk of thromboembolism due to increased blood coagulation factors; length and separation of rectus abdominis muscles - diastasis; weakened pelvic floor muscles, including weakened perineal muscles, muscle abnormalities and weakness of the levator anus muscle; enuresis; prolapse of pelvic organs; pelvic floor neuropathy; fecal incontinence and flatulence; swelling of the extremities - hands, feet and ankles; excessive weight gain; lower back pain [16, 17].

The postpartum period is characterized by a wide range of new states of women's life and increased sensitivity to external factors. The whole range of postnatal changes can be considered as an integrative combination of psychological, physiological and endocrine factors [14, 16, 17] that affect the physical and mental activity of women, as well as determine their relationship with the child.

Pregnancy, childbirth and the postpartum period are difficult and responsible periods in the life of every woman. Relationships in the family, a warm emotional attitude towards the child, which contributes to harmonious growth and development, depend on the condition of the mother in labor, her physical and psychological readiness for motherhood.

Nowadays, the peculiarities of the physical and social-psychological state of women in the postpartum period are relatively little studied, only separate attempts are made to systematically assess the quality of their life as an integral indicator of the state of health [21, 22, 23, 25], and rehabilitation programs are represented mainly by prenatal training [7, 20].

A woman's lifestyle and, as a result, her physical, psycho-emotional and social state after childbirth undergo fundamental changes [14, 18]. There is an increase in the load against the background of physical exhaustion or weakening due to pregnancy.

This condition is aggravated by pregnancy pathology, extragenital pathology, insufficient social protection from the state. All this, especially if the delivery took place through the abdominal route, leads to a marked violation of the functioning of women.

Optimizing the quality of life, creating positive emotions in order to provide an optimal psychophysical environment for the emotional and personal development of a child and the functioning of a woman are important tasks for improving the effectiveness of existing postpartum care. Therefore, we believe that, given the importance of non-medicinal methods of influencing the body, physical therapy is important in the prevention and correction of a woman's psychophysiological condition, and is a powerful factor in improving the body's self-regulation processes at all its levels [17, 18, 19].

During the postpartum period, changes in all domains of the International Classification of Functioning - structure and function, activity, participation - can be detected in women. The physical and mental status of a woman directly affects her ability to care for and raise a child, return to work and social activity, as well as the quality of life, which is the degree of comfort of a person both within herself and within the environment, therefore, they require certain measures recovery for the fastest possible normalization [8, 24].

The postpartum period is the period that begins after the birth of the litter. The initial or acute period covers the first 6-12 hours after delivery. This is a time of rapid change with the potential for immediate crises such as postpartum hemorrhage, uterine inversion, amniotic fluid embolism, and eclampsia [13, 14, 15].

The second phase is the subacute late postpartum period, which lasts 2-6 weeks. During this phase, serious changes occur in the body in terms of hemodynamics, recovery of the genitourinary system, metabolism and emotional state. Nevertheless, changes are less rapid than in the

ISSN 2521-1455 (Print)
ISSN 2523-4250 (Online)

acute postpartum phase, and the patient is usually able to identify problems on her own. These can range from the common concern of perineal discomfort to perinatal cardiomyopathy or severe postpartum depression [13].

The third phase is the delayed postpartum period, which can last up to 6 months [14]. Changes during this phase are extremely gradual, and pathology is rare. This is the time to restore the tone of muscles and connective tissue to the pre-pregnancy state. Although the changes during this phase are minor, it should be remembered that a woman's body does not fully recover to its original physiological state as it was before pregnancy until about 6 months after giving birth.

Conclusions.

1. Therefore, a caesarean section should be performed according to indications with a mandatory justification.
2. The presence of a postoperative scar in women who underwent an abdominal delivery causes changes in the postpartum period in the form of a specific limitation of mobility during its formation. This aspect is all the more important from the point of view of the onset of future pregnancies, which requires the formation of a full-fledged elastic strong scar on the uterus and soft tissues.
3. The formation of a scar in the postpartum period, in connection with the need for care and feeding of the child, changes as a result of sleep and rest regimes, additionally increases the metabolic, physical, psycho-emotional load, which causes pressure on the adaptive capabilities of the regulatory systems of the woman's body against the background of reconstruction and recovery structural and hormonal components.
4. A woman's condition directly affects her ability to care for and raise a child, return to work and social activity, as well as the quality of life, both personally and within the framework of the environment. Therefore, certain recovery measures are necessary for their normalization as soon as possible.

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УДК 618.5-089.888.61

ОСОБЛИВОСТІ ФІЗІОЛОГІЇ ПІСЛЯПОЛОГОВОГО ПЕРІОДУ ПІСЛЯ КЕСАРСЬКОГО РОЗТИНУ

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Резюме. Основний принцип перинатального акушерства полягає в забезпеченні здоров'я породіллі, плода та новонародженого, що в низці випадків вимагає швидкого та щадного пологорозрішення. Тож упродовж останніх десятиліть кесарів розтин (КР) в акушерській практиці став інструментом, котрий дозволяє зберегти здоров'я і матері, й дитині.

Незважаючи на значуще поширення, КР відносять до розряду складних операцій із високим відсотком післяопераційних ускладнень (3,3% - 54,4%), які пов'язані з технікою втручання, акушерськими та неонаталогічними причинами.

Власне, науковий прогрес у медицині, соціальні та культурні зміни привели до фундаментальних трансформацій у ставленні до КР серед жінок і лікарів. Фактично, консенсус щодо показань до кесаревого розтину змінився в багатьох країнах, особливо тепер, коли беруть до уваги психосоціальні фактори.

Післяпологовий період – це критичний, але часто ігнорований період у житті нових батьків. Так, саме він (післяпологовий період) характеризується широким спектром нових станів жіночого життя та підвищеною чутливістю до зовнішніх факторів. Увесь спектр постнатальних змін можна розглядати як інтегративну комбінацію психологічних, фізіологічних і ендокринних факторів, що впливають на фізичну та психічну діяльність жінок, а також визначають їхні стосунки з дитиною.

Висновки. Проведення кесарського розтину повинно бути за показами з обов'язковим обґрунтуванням.

Наявність післяопераційного рубця в жінок, які перебули абдомінальне пологорозрішення, вносить у післяпологовий період зміни на кшталт специфічного обмеження мобільності на час його формування. Цей аспект постає важливим із позицій настання майбутніх вагітностей, що вимагає утворення повноцінного еластичного міцного рубця на матці та м'яких тканинах.

Формування рубця в післяпологовому періоді у зв'язку з потребою в догляді та годуванні дитини, змін унаслідок цього режимів сну та відпочинку додатково підвищують метаболічне, фізичне, психоемоційне навантаження, що спричиняє тиск на адаптаційні можливості регуляторних систем організму жінки.

Стан жінки безпосередньо впливає на її можливості стосовно догляду та виховання дитини, повернення до роботи й соціальної активності, а також на якість життя як особистості, так і в межах соціуму. Тому необхідні певні заходи відновлення для якнайшвидшої нормалізації вищепереліченого.

Ключові слова: кесарів розтин, вагітність, післяпологовий період, пологи, акушерська стратегія, фізіотерапія, ерготерапія, мультидисциплінарний підхід, реабілітація.

Стаття надійшла в редакцію 12.01.2024 р.
Стаття прийнята до друку 26.02.2024 р.