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NEUROENDOCRINE DETERMINANTS OF POSTPARTUM PSYCHOEMOTIONAL STATE AND THEIR IMPACT ON LACTATION EFFICIENCY: A COMPREHENSIVE REVIEW

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Abstract. The postpartum period is characterized by profound physiological and neuroendocrine transformations. This transitional phase involves a critical interplay between the establishment of lactation and the mother's psychoemotional state. In clinical practice, lactational insufficiency and perinatal mood disorders frequently co-occur. This article analyzes the psychoemotional changes occurring during lactation, their underlying neuroendocrine mechanisms, and their correlation with breastfeeding failure. Based on a comprehensive review of scientific literature, it is concluded that shared hormonal and neuroregulatory systems participate in the pathogenesis of both lactation and perinatal depression.

Keywords: lactation, perinatal period, psychoemotional state, neuroendocrine regulation, prolactin, oxytocin.

Аннотация. Послеродовой период характеризуется глубокими физиологическими и нейроэндокринными трансформациями. Этот переходный этап включает критическое взаимодействие между становлением лактации и психоэмоциональным состоянием матери. В клинической практике лактационная недостаточность и перинатальные расстройства настроения часто протекают сочетанно. В данной статье анализируются психоэмоциональные изменения, происходящие в период лактации, лежащие в их основе нейроэндокринные механизмы и их корреляция с неудачами при грудном вскармливании. На основании всестороннего обзора научной литературы делается вывод о том, что общие гормональные и нейрорегуляторные системы участвуют в патогенезе как лактации, так и перинатальной депрессии.

Ключевые слова: лактация, перинатальный период, психоэмоциональное состояние, нейроэндокринная регуляция, пролактин, окситоцин.

Аннотация. Тугруқдан кейинги давр чуқур физиологик ва нейроэндокрин трансформациялар билан характерланади. Ушбу ўтиш босқичи лактациянинг шаклланиши ва онанинг психоэмоционал ҳолати ўртасидаги муҳим ўзаро боғлиқликни ўз ичига олади. Клиник амалиётда лактация етишмовчилиги ва перинатал кайфият бузилишлари кўпинча бир вақтда кузатилади. Мақолада лактация даврида содир бўладиган психоэмоционал ўзгаришлар, уларнинг нейроэндокрин механизмлари ва кўкрак билан боқиш муваффақиятсизлиги билан боғлиқлиги таҳлил қилинади. Илмий адабиётларнинг ҳар томонлама шарҳи асосида шундай хулосага келиндики, умумий гормонал ва нейрорегулятор тизимлар ҳам лактация, ҳам перинатал депрессия патогенезида иштирок этади.

Калит сўзлар: лактация, перинатал давр, психоэмоционал ҳолат, нейроэндокрин регуляция, пролактин, окситоцин.

Introduction. Perinatal mood disorders affect approximately 10% of mothers and exert a significant negative impact on maternal and infant health. Inadequate lactation during the

postpartum period often manifests alongside these conditions. Currently, there is growing scientific evidence regarding the shared neuroendocrine foundations of lactational disorders and perinatal depression.

Although global health organizations recommend exclusive breastfeeding for the first six months of life, in practice, these rates remain low in many countries, including Uzbekistan. This situation necessitates integrated approaches aimed at supporting lactation and improving the mother's psychoemotional well-being.

Lactational Insufficiency and Psychoemotional State. One of the primary reasons for the cessation of breastfeeding is a decrease in lactation intensity. According to various studies, a significant portion of early breastfeeding termination cases are involuntary and occur against the woman's wishes. Lactational insufficiency may be associated with pain, improper latching, and anxiety regarding perceived low milk supply.

Depressive states, anxiety, and chronic stress in the mother negatively affect the lactation process. These conditions lead to reduced secretion of prolactin and oxytocin, as well as a suppressed milk-ejection reflex.

Neuroendocrine Mechanisms. A sharp decline in progesterone levels after childbirth is considered a key factor in initiating lactation. However, these hormonal shifts also impact the central nervous system, potentially triggering depressive states in certain women. Progesterone's metabolite, **allopregnanolone**, is a neurosteroid that dampens the stress response. When its levels drop postpartum, psychoemotional instability can arise.

Prolactin not only ensures milk synthesis but also plays a vital role in shaping maternal behavior. Insufficient prolactin secretion leads to both lactational failure and a weakened emotional response from the mother toward the infant.

Stress and the Autonomic Nervous System. The hypothalamic-pituitary-adrenal (HPA) axis plays a crucial role in the physiology of lactation. While cortisol is necessary for the synthesis of milk proteins, its deficiency or dysregulation adversely affects the lactation process. A diminished stress response during lactation is considered a physiological norm; however, in depressed mothers, this mechanism may be impaired.

The balance between the sympathetic and parasympathetic divisions of the autonomic nervous system also influences breastfeeding success. Decreased parasympathetic activity can lead to the cessation of lactation and the exacerbation of psychoemotional disorders.

Conclusion. Lactational insufficiency and perinatal depression are interrelated clinical conditions underpinned by shared neuroendocrine mechanisms. Hormonal shifts, impaired stress response systems, and autonomic nervous system imbalances play critical roles in the formation of these states. In-depth study of these mechanisms will enable the development of strategies for comprehensive medical and psychological support for mothers during the perinatal period.

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