

LACTATION AND MACROSOMIA: THE INTERACTION BETWEEN EXCESS WEIGHT AND BREASTFEEDING

Zakirova Nodira Islamovna
Abdullaeva Nigora Erkinovna.

Department of Obstetrics and Gynaecology No. 1,
Samarkand State Medical University

<https://doi.org/10.5281/zenodo.17412999>

Relevance of the study. Macrosomia is known to be associated with a variety of perinatal and maternal complications and represents an important problem in modern obstetric practice[3,4]. The postpartum period, especially in breastfeeding women, is characterised by physiological hypoestrogenism caused by lactation[1,14]. Despite the obvious clinical significance of these changes, there are insufficient studies in the literature devoted to the combined effect of lactation and previous deliveries of macrosomic fetuses on the condition of the mother and foetus[2,5]. This makes it difficult to develop sound clinical recommendations for the management and rehabilitation of women in the postpartum period[15,16].

Lactation in women who have given birth to large babies can be particularly challenging, both physiologically and psychologically[4,6]. The birth of a large baby is often accompanied by more serious trauma and complications during delivery, which can negatively affect a woman's ability to breastfeed [7,13]. Physical fatigue, pain, and stress can reduce the levels of prolactin and oxytocin necessary for successful lactation [9,10]. In addition, women who have given birth to a large baby may experience difficulties with latching due to discomfort or limited mobility[11,12]. To establish successful lactation, it is important to provide such women with individualised support and information, as well as to encourage them to actively participate in the breastfeeding process, which will help overcome any difficulties that arise and ensure the health of both mother and baby.

Research objective: to study the characteristics of the formation and preservation of lactation function in women after giving birth to a macrosomic foetus.

Research material: The study was conducted on 70 women who gave birth at term: the main group consisted of 40 women who gave birth to macrosomic newborns (body weight \geq 4000 g); control group — 30 women who gave birth to children of normal weight (3000–3700 g).

A clinical and anamnestic assessment was performed, and the levels of prolactin, oxytocin, oestrogen and progesterone were studied in the early and late postpartum period.

Lactation function was assessed based on the timing of milk production, breast milk volume (control feeding method), as well as complaints and breast examination data.

Research results: We observed 70 women, who were divided into two groups according to the objectives of the study. Before the start of the study, all patients gave their informed voluntary consent to participate in the examination. The patients were aged between 20 and 36, with an average age of 26.5 ± 4.1 in the main group and 24.6 ± 6.1 in the control group.

There were 15 primiparas (37.5%) in the main group and 13 (43.3%) in the control group. There were 25 (62.5%) women in the main group and 17 (56.7%) women in the control group who had given birth before.

We confirmed that the tactics for managing labour in cases of macrosomia should be individualised. In 48 (68.6%) women, labour occurred through the natural birth canal, and in 22 (31.4%) cases, a caesarean section was performed.

There were more boys than girls in the study population, with an overall ratio of boys to girls of 3:1.

This study included 70 women who were divided into three groups: women who breastfed for less than 6 months; women who breastfed for 6 to 12 months; and women who breastfed for more than 12 months. Blood tests were performed for each group to measure prolactin and estradiol levels.

The results of this study showed that prolactin levels decrease significantly with increasing duration of lactation. In the group of women who breastfed for less than 6 months, the average prolactin level was 180 ng/ml. In women who breastfed for 6 to 12 months, this figure decreased to 140 ng/ml, and in the group with lactation lasting more than 12 months, the prolactin level was 100 ng/ml. As for oestradiol levels, they increased with the duration of lactation: in the first group, they were 60 pg/ml, in the second group, 90 pg/ml, and in the third group, 130 pg/ml.

Thus, the results confirmed the hypothesis that prolactin levels decrease with increasing duration of lactation, while oestradiol levels increase. This may be due to the restoration of the menstrual cycle and hormonal balance after the end of lactation.

Conclusion. Women who have given birth to macrosomic babies are more likely to experience difficulties in establishing and maintaining lactation. The main cause of hypogalactia is hormonal imbalance (decreased prolactin and oxytocin) against a background of metabolic disorders.

The data obtained may be useful for developing recommendations for maintaining women's health in the postpartum period. It should be noted that further research is needed to gain a deeper understanding of the mechanisms by which hormones affect the lactation function of new mothers for the long-term health consequences for women.

Early correction of risk factors (optimisation of delivery, weight control, stimulation of lactation, psycho-emotional support) contributes to the restoration of full lactation.

Thus, lactation, as an important physiological process, plays a key role in providing newborns with all the necessary nutrients and antibodies, which, in turn, contributes to their healthy growth and development. An individual approach to monitoring women after giving birth to a large baby is necessary, with the involvement of an obstetrician-gynaecologist and a breastfeeding consultant.

Adabiyotlar, References, Литературы:

1. Abou-Zahr C, Wardlaw T, Stanton C, et al. Maternal mortality. World Health Stat Q 1996; 49: 77-87.
2. Zakirova F. Analysis of the treatment methods for endometriosis. Research journal of trauma and disability studies. 2022; 1(10): 39-45
3. Zakirova N. Zakirova F. Abdullayeva N. Features of pregnancy management and birth outcomes in women with fetal macrosomiya with active and expectant tactics. Journal of reproductive health and uro- nephrology research. 2022; 3(4):77-79.

4. Zakirova F. Abdullaeva N. Telmanova J. The consequences of polyhydramnios for mo
5. Zakirova Nodira Islamovna, Zakirova Fotima Islamovna, Abdullaeva Nigora Erkinovna, Risk factors for maternal mortality, Journal of reproductive health and uro-nephrology research 2023, vol 4, issue 3, pp 86-89
6. Thakar R., Sultan A.H./ Pelvic floor trauma after childbirth: pathophysiology and clinical implications. // Curr Opin Obstet Gynecol, 2019; 31(6): 486–492.
7. Yuldasheva I. Farangiz, Samiyeva U. Gulnoza, Zakirova I. Nodira. Treatment of vaginal dysbiotic disorders in pregnant women before childbirth // Journal of Biomedicine and Practice. 2023, vol. 8, issue 1, pp. 17-22.
8. Аязбеков А. К. и др. Макросомия плода: акушерские и перинатальные исходы // Вестник казахского национального медицинского университета. – 2022. – №. 1. – С. 37-42.
9. Герасимова Т.И., Вязникова Е.Н. «Макросомия плода: клинко-диагностические аспекты и исходы родов». // Журнал акушерства и женских болезней, 2021; №6: 40–46.
10. Закирова Н.И. // Материнская смертность в регионе с высокой рождаемостью// Акушерство и гинекология. С. 21-24. 1998
11. Закирова Н.И., Закирова Ф.И., Абдуллаева Н.Э.// Макросомия плода: современное состояние проблемы/ Современные подходы к стандартизации оказания медицинской помощи в акушерско-гинекологической практике/23.02.2022/ С. 144-146
12. Закирова Н.И., Закирова Ф.И., Абдуллаева Н.Э.// Women's health and modern contraceptive technology after childbirth// Вестник фундаментальной и клинической медицины— 2022, — №3 (3) —Р 82-83.
13. Закирова Ф. Закирова Н. Абдуллаева Н. Особенности ведения беременности, исход родов у женщин с ожирением и макросомией. Современная медицина: традиции и инновации. 2022; 1: 142-144.
14. Закирова Н.И., Закирова Ф.И., Абдуллаева Н.Э.// Акушерские и перинатальные аспекты крупного плода// Достижения фундаментальной, прикладной медицины и фармации. 2023. С.232-233
15. Мухаммедова , Ф., & Негмаджанов Б., . (2025). ЮВЕНИЛЬНАЯ БЕРЕМЕННОСТЬ И ПРЕЖДЕВРЕМЕННЫЕ РОДЫ: АКУШЕРСКИЕ И НЕОНАТАЛЬНЫЕ АСПЕКТЫ. Евразийский журнал медицинских и естественных наук, 5(4), 15–20.
16. Юлдашева Ф. Закирова Н. Самиева Г. Особенности дисбиоза влагалищно микробиоты при гинекологических заболеваниях. Проблемы биологии и медицины. 2022; 3(136): 7-12.