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FEATURES OF PREGNANCY MANAGEMENT AND BIRTH OUTCOMES IN WOMEN WITH FETAL MACROSOMIA WITH ACTIVE AND EXPECTANT TACTICS

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ABSTRACT

Currently, there is no generally accepted term for macrosomia, and therefore a child born weighing more than 4000 g, regardless of the gestational age, taking into account the child. The frequency of birth turns out to be a fetus, according to the literature, it ranges from 5-20%. Depending on the parity of childbirth, all women in labor (n=200) were divided into the following groups: group I included 78 women in labor, active management of labor was included, in group II - 122 women in labor with expectant management.

Key words: obstetrics, macrosomia, large fetus, obesity, pregnancy and macrosomia.

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ОСОБЕННОСТИ ВЕДЕНИЯ БЕРЕМЕННОСТИ И ИСХОД РОДОВ У ЖЕНЩИН С МАКРОСОМИЕЙ ПРИ АКТИВНОЙ И ВЫЖИДАТЕЛЬНОЙ ТАКТИКЕ

АННОТАЦИЯ

В настоящее время не существует общепринятого термина макросомии, в связи с чем ребенок, рожденный с массой более 4000 г, вне зависимости от срока беременности, считается крупным ребенком. Частота рождения крупным плодом, по данным литературы кжолеблется в пределах 5-20%. В зависимости от паритета родов все роженицы(n=200) были разделены на следующие группы: в I группу вошли 78 рожениц, которым была применена активная тактика ведения родов, во II группу- 122 роженицы с выжидательной тактикой.

Ключевые слова: акушерство, макросомия, крупный плод, ожирение, беременность и макросомия

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FAOLI VA KUTILGAN BOSHQARUV BO‘LGAN MAKROSOMIY AYOLLARDA HOMILALIYLIKNI BOSHQARISH XUSUSIYATLARI VA TUG‘ILISh NATIJASI

ANNOTATSIYA

Hozirgi vaqtda makrosomiya uchun umumiy qabul qilingan atama yo'q va shuning uchun bolani hisobga olgan holda homiladorlik yoshidan qat'i nazar, 4000 g dan ortiq vaznda tug'ilgan bola. Tug'ilish chastotasi homila bo'lib chiqadi, adabiyotga ko'ra, u 5-20% gacha. Tug'ilish paritetiga qarab, barcha tug'ruqdagi ayollar (n=200) quyidagi guruhlarga bo'lingan: I guruhga 78 nafar tug'ruqdagi ayollar, faol mehnatni boshqarish, II guruhga - 122 nafar tug'ruq davridagi ayollar.

Kalit so'zlar: akusherlik, makrosomiya, katta homila, semizlik, homiladorlik va makrosomiya.

Relevance: Currently, there is no generally accepted term for macrosomia, and therefore a child born weighing more than 4000 g, regardless of the gestational age, is considered a large child[6]. The frequency of birth with a large fetus, according to the literature, ranges from 5-20% [3]. Large children are more often born in multiparous, multiparous and age-related primiparous women [1] Literature data indicate that nutritional factors, excessive weight gain during pregnancy, pathology, etc. play a huge role in the development of fetal macrosomia.[2,5] Macrosomia is associated with adverse outcomes during pregnancy both for the mother and for child, as there is a generally accepted association between fetal macrosomia and long-term consequences for the newborn, including obesity, diabetes, heart disease, etc.

High rates of asphyxia, birth trauma during childbirth with a large fetus through the natural birth canal are of great medical and social importance, which, of course, determines the relevance of the topic and the purpose of the study.

Purpose of the study: to study the features of the course of pregnancy and outcomes in women with obesity and fetal macrosomia.

Material and research methods: Depending on the parity of childbirth, all women in labor (n=200) were divided into the following groups: group I included 78 women in labor who underwent active labor management, group II included 122 women in labor with expectant management. Inclusion criteria in group I were: women aged 18-45 years, with cephalic presentation of the fetus, gestational age 39.0 - 39.6 weeks, in which, due to the alleged fetal macrosomia and the unpreparedness of the soft birth canal for childbirth, the cervix was prepared to childbirth. The exclusion criteria were: a scar on the uterus, premature rupture of amniotic fluid, diabetes mellitus of any type, fetal malformations.

Group II (expectant management) - women aged 18-45 years, cephalic presentation of the fetus and 40.0 - 41.6 weeks of pregnancy, who developed spontaneous labor activity.

Fetal macrosomia was diagnosed in all patients using an ultrasound scanner and obstetric research methods.

The Bishop scale was used to assess the condition of the cervix in all patients.

To study the relationship between maternal obesity and fetal macrosomia, the examined women were divided into the following groups: control group (non-obese women, BMI 25.0-29.9 kg/m2), underweight women (<18.5 kg/m2), normal weight (18.5-24.9 kg/m2) and overweight (25.0-29.9 kg/m2). Comparisons were then made for each class separately for both mother and fetus.

An accounting card was developed, including data: mother's history, parity of childbirth, methods of delivery, complications of previous births and the postpartum period, weight of the newborn, anthropometric data, assessment of the state and perinatal outcome of the newborn, etc. Statistical data processing was carried out using Microsoft Excel.

Results of the study and their discussion: Most of the women were overweight and of varying degrees of obesity. Features of the distribution of pregnant women by body weight are presented in Table 1.

Table 1

Distribution of the degree of obesity by groups

Degree of obesity	Total n=200	Group I n=78	Group II n=122
Underweight	-	-	-
Normal weight	30(15%)	12(15,38%)	18 (14,75%)
Overweight	88 (44%)	45 (57,7%)	43 (35,2%)
I degree of obesity	50 (25%)	14 (17,95%)	36 (29,5%)
II degree of obesity	18 (9%)	13 (16,67%)	5 (4%)
III degree of obesity	14 (7%)	9 (11,5%)	5 (4%)

Immature cervix was diagnosed at 39.0-39.6 weeks of pregnancy in 62/78 (79.5%) patients of the 1st group, at 40.0-41.6 weeks of pregnancy - in 100/122 (82%) patients 2nd group. An insufficiently mature cervix was diagnosed at 39.0-39.6 weeks of pregnancy in 16/78 (20.5%) patients of the 1st group, at 40.0-41.6 weeks of pregnancy - in 22/122 (18%) patients of the 2nd group (Table 2).

Table 2

Evaluation of the degree of maturity of the cervix for childbirth according to the Bishop scale

The state of maturity of the birth canal according to the Bishop scale	Group I (n=78)	Group II (n=122)
Immature cervix	62(79,5%)	100(82%)

ature cervix	16(20,5%)	22(18%)

With fetal macrosomia, there is a high frequency of birth injuries to the fetus and mother, which is due to the significant size of the fetal head, and therefore the birth proceeded with some difficulties. The presence of complications of pregnancy and childbirth in women with obesity and macrosomia was an indication for abdominal delivery. Obstetric injuries of the soft tissues of the birth canal during childbirth with a large fetus significantly exceeded during childbirth with normal weight fetuses. The frequency of injuries during childbirth with a large fetus significantly exceeded that of small ones: perineal ruptures occur in 1.7-4.9%, cervical ruptures - 0.7-4.7% of cases. The volume of blood loss during childbirth with fetal macrosomia is 325.47 ‡ 148.69 ml, with an average fetal weight - 227.47 ‡ 165.63 ml.

In the postpartum period with macrosomia, subinvolution of the uterus was observed in 10.6% of puerperas, postpartum endometritis - 1.2%, postpartum ulcer, hematometer was diagnosed in 16.0% of cases, however, the need for instrumental revision of the uterine cavity was observed in 12.9% of puerperas.

The study of the frequency of somatic diseases and complications of pregnancy showed that among the complications of pregnancy, premature rupture of amniotic fluid and a long anhydrous period (more than 12) were more common with active tactics compared with expectant management. After 41 weeks of pregnancy in women with obesity and macrosomia, oligohydramnios was more often diagnosed, and the frequency of chronic fetal hypoxia, which was reflected in meconium staining of amniotic fluid, increased.[4]

With active and expectant tactics, pre-induction of labor was performed in women in the presence of unpreparedness of the soft birth canal for childbirth.

The average weight and height of newborns with active and expectant management of labor are presented in Table 3.

Table 3

Mean body weight and height of newborns

Index	Group I (n=78)	Group II (n=122)
Average body weight, g	4266,0	4099,0
Average height, cm	55,4	53,9

Male newborns with macrosomia were 25% more common than female ones. The ratio between male and female fetuses was 62% and 38%, respectively. The presence of a male fetus increases the risk of macrosomia by 3-3.5 times.

Comparative analysis of methods of delivery in primiparas with active tactics showed the frequency of complications in childbirth (disproportion of the head to the mother's pelvis, acute fetal hypoxia, unsatisfactory progress of childbirth), which served as an indication for caesarean section. Premature discharge of amniotic fluid and the duration of the anhydrous period require the appointment of antibiotic prophylaxis.

Expectant management in macrosomia at 41.0-41.6 weeks reduces the frequency of caesarean section without contributing to an increase in the frequency of thankless maternal and perinatal complications.

The results of this study support our hypothesis that pregnancies with macrosomia have more adverse maternal and fetal outcomes if the mother is obese. Birth weight ≥ 4000 g occurs in 12% of all births and 18% of pregnancies in obese women. Pregnancy in obese women resulting in a macrosomal fetus is more likely to be complicated by gestational diabetes, gestational hypertension than pregnancy in non-obese women. Such mothers are more likely to undergo caesarean section. Although the most striking reason for operative delivery was maternal indications.

Conclusions: Obesity leads to an increase in adverse pregnancy outcomes in women with macrosomia: delivery by caesarean section (especially for maternal indications) and the need for neonatal resuscitation. Obese women should be made aware early in pregnancy of possible macrosomia (18% in our study) and that these mothers and children are more likely to require intervention. Women with obesity are recommended a healthy lifestyle, a nutritious diet with appropriate calories.

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