ORTIQCHA VAZNI BOR AYOLLARDA HOMILADORLIK VA TUG'RUQNING KECHISHI VA ASORATLARI.

***Yunusova Aziza Rahmatullaevna*[1],**
***Qodirova Gulnora Ramazan qizi*[2] .**
Akusherlik va ginekologiya kafedrasi davolash fakulteti N1.
Samarqand davlat tibbiyot universiteti .
Uzbekistan.

Annotatsiya. Semirib ketish metabolizmning eng keng tarqalgan kasalliklaridan biridir. So'nggi yillarda uning chastotasi ko'payib bormoqda va iqtisodiy rivojlangan mamlakatlarda 20-50 foizga etadi. O'zbekistonda semirish va ortiqcha vazn ayollar aholisining 25,0-37,0 foizida kuzatiladi So'nggi yillarda o'tkazilgan ko'plab tadqiqotlar natijalari ortiqcha vaznli ayollarda homiladorlik jarayoni va tug'ish ancha murakkablashganini tasdiqlamoqda. Perinatal muammolarni(homiladorlik paytida gipertenziv kasalliklar, , makrosomiya) shuningdek jarrohlik yo'li bilan yakunlangan tug'ruqning asoratlarni oldini olish.

Kalit so'zlar: semizlik, xomiladorlik, tug'ruq.

Аннотация. Ожирение является одним из наиболее распространенных заболеваний обмена веществ. В последние годы его частота увеличивается и достигает 20-50 процентов в экономически развитых странах. Ожирение и избыточная масса тела встречаются у 25,0-37,0% женского населения Узбекистана. Результаты многих исследований, проведенных в последние годы, подтверждают, что процесс беременности и родов у женщин с избыточной массой тела протекает значительно сложнее. Профилактика перинатальных проблем (гипертоническая болезнь при беременности, макросомия), а также осложнений оперативного родоразрешения.

Ключевые слова: ожирение, беременность, роды.

Annotation. Obesity is one of the most common diseases of metabolism. In recent years, its frequency has been increasing and reaches 20-50 percent in economically developed countries. Obesity and overweight occur in 25.0-37.0% of the female population in Uzbekistan The results of many studies conducted in recent years confirm that the process of pregnancy and childbirth in overweight women is much more complicated. Have a normal body weight, but prevent perinatal problems (hypertensive diseases during pregnancy,, macrosomia, as well as complications born by surgery.

Keywords: obesity, pregnancy, childbirth.

Research materials and methods:

1. Disorders of lipid metabolism (total cholesterol, TG, HDL cholesterol, LDL cholesterol, VLDL cholesterol).

3. Disorder of purine metabolism (uric acid). III. Assessment of hormonal status on day 3-5, determination of hormones: total testosterone, SHBG (with calculation of free androgen index), prolactin, LH, FSH, excretion of free cortisol in daily urine.

Morphofunctional methods of ultrasound examination of the liver, adrenal glands, pelvic organs, mammary glands and calipermetry (subcutaneous fat thickness in the region of the anterior abdominal wall and shoulder triceps muscles).

Results. Pregnancy in obese women is associated with a number of maternal and perinatal risks. The degree and frequency of these risks increase with the severity of obesity. Weight loss in women planning pregnancy of reproductive age and reducing these risks are important tasks of internists and obstetricians-gynecologists.

Obesity is characterized by an excess amount of adipose tissue in the body. Body mass index (BMI) is directly related to the mass of adipose tissue and is currently used to define obesity, where BMI (before pregnancy) is -30 kg / m2 [1]. Adipose tissue is an active endocrine organ. With excess adipose tissue, leptin levels increase and adiponectin levels decrease, leading to insulin resistance (IR). Obesity is also often associated with hyperandrogenism. These and various other hormonal changes cause anovulation [2].

Whether obesity itself is a factor that increases the risk of adverse pregnancy outcomes or predisposes to the development of other pathological conditions that increase this risk is still not fully clear [3]. Negative pregnancy outcomes are often associated with impaired carbohydrate metabolism, which occurs in a significant proportion of obese women. At the same time, obese women with normal glucose tolerance are more likely to have a complicated pregnancy [4].

It is believed that various mechanisms of regulation of metabolic, vascular and anti-inflammatory mechanisms of metabolic substances are used in pathogenesis. This assumption confirms that the occurrence of some complications increases with progression [1,2,6].

Epigenetic changes in response to increased levels of glucose, lipids, and proinflammatory cytokines affecting the fetus in utero, temporary or permanent changes in metabolic programming, and this manifests as an increased risk of various diseases during life [7].

The prevalence of obesity among women of reproductive age varies widely depending on the criterion used, the year of study, and the characteristics of the study population, but there is a clear increase in the proportion of these women in line with the increase in the prevalence of obesity in the general population [8]. According to the NHANES (National Health and Nutrition Examination Survey) conducted in 2011-2012, the percentage of obese people between the ages of 20 and 39 was 31% (BMI -30 kg/m2) ; the highest prevalence is among African American women (56.6%) [9]. For comparison: in 1980 (before BMI was routinely used), only 7% of women before their first delivery had a body weight of more than 95 kg [10].

Effects on birth. Obesity is often associated with polycystic ovary syndrome (TPTS) characterized by anovulation. IR is one of the main pathogenetic mechanisms in TPTS. Reactive hyperinsulinemia is thought to disrupt normal folliculogenesis. Restoration of ovulation observed in weight loss and treatment

with metformin in women with PCOS supports this concept [11, 12]. However, even in the absence of PCOS, obese women have a birth problem. Pregnancy time increases in proportion to weight gain [13]. Negative factors associated with obesity disrupt ovarian function and reduce the quality of oocytes, which can also have a sensitive negative effect on the receptor apparatus of the endometrium. Several observational studies have shown that weight loss leads to beneficial hormonal changes and improved fertility in obese women [14, 15]. Large randomized tests are needed to confirm these initial results. Efficacy of infertility treatment using reproductive assistance technologies (YBT). Obese women have a higher risk of failure during art treatment for infertility than women with normal body weight. In a number of studies, the decrease in the effectiveness of infertility treatment was due to the low number and quality of oocytes obtained, as well as the low quality of the embryos [16, 17]. Other studies have shown that obese women with comparable rates of clinical pregnancy and live birth require more gonadotropin doses to stimulate ovulation than women with normal body weight [18, 19]. In regular examination and meta-analysis of 33 studies, extracorporeal fertilization (IVF) / ICSI (from English ICSI - intracytoplasmic sperm injection, lit. sperm to cytoplasm The introduction contained 48,000 treatment cycles of spermatozoa). A small but statistically significant decrease in the incidence of clinical pregnancy (RR = 0.90) and live birth (RR = 0.84) and a significant increase in the risk of early pregnancy was observed compared with women with BMI <25 kg / m2 with BMI 2525 kg / m2 loss (RR = 1.31) [20]. According to the regular review of the results of treatment cycles in women using donor eggs (YBT), the clinical pregnancy rate in obese recipients did not differ from those of women with body weight (RR 0.97, 95% CI 0.83-1.16) [21]. This suggests that a decrease in obesity-related birth (at least in part) is associated with a decrease in oocyte quality. However, studies are mainly retrospective, differ in patient selection criteria, and there are no data on important additional factors (e.g., infertility, smoking, subcutaneous fat distribution, or joint endocrinopathies) that may adversely affect childbirth. ... Improves pregnancy outcomes in obese women who are involved in pre-conception weight loss, eco-fertility treatment [22, 23]. There are no random tests to assess the effect of weight loss on early pregnancy loss, but follow-up studies have shown that pregnancy outcomes have improved after weight loss programs [27]. Disorders of carbohydrate metabolism. Because obesity undoubtedly contributes to an increase in the incidence of type 2 diabetes mellitus (DM), disorders of carbohydrate metabolism often aggravate the incidence of pregnancy in obese women [28]. In addition, the results of various studies clearly show the prevalence of diabetes mellitus (GDM) in obese women compared with the general population of a similar age (6-12% and 2-4%, respectively) [29]. The frequency of GDM increases by 0.92% for every 1 kg / m2 compared to the ideal body weight [1, 30]. Carbohydrate metabolism may return to normal after birth; In obese women, the duration of diabetes in the postpartum period is 2 times higher than in women with normal body weight [30]. Screening for GDM is usually performed at 22-24 weeks. pregnancy, however, if there are risk factors for

diabetes (severe obesity, GDM or birth weight children, glucosuria, PCOS, the first relatives with diabetes, etc.), oral glucose tolerance test in the first trimester of pregnancy must be transferred [3]. Pregnancy hypertension.

Maternal weight and BMI are an independent risk factor for the development of preeclampsia and gestational hypertension [28, 36-38]. According to a systematic review of 13 cohort studies covering almost 1.4 million women, the risk of preeclampsia has been shown to increase 2 times for every 5-7 kg / m2 with an higher than ideal BMI [36]. This trend has been maintained even after women with persistent hypertension and diabetes have been excluded from the analysis or after adapting to other diseases. Cohort studies have shown that the risk of preeclampsia has decreased after weight loss [12].

Induction and spontaneous labor (PR). Obesity increases the risk of spontaneous and medically indicated PR, primarily hypertension, preeclampsia, and carbohydrate metabolism disorders. The pathogenesis of PR must involve vascular and pro-inflammatory factors. A systematic review showed that the relative risk of PR in overweight and obesity was 1.30, 95% CI 1.23–1.37 (compared to women with normal body weight) and increased with increasing BMI [39].

Delaying pregnancy. Recently, more and more information has appeared on the association between obesity and long-term pregnancy [29, 41-43]. In 4 large population-based cohort studies, a 1.2-1.7-fold increased risk of long-term pregnancy was shown in obese women [29, 30, 41, 43]. It is assumed that hormonal disturbances in obesity can slow down the induction of labor.

Congenital fetal anomalies. Maternal obesity slightly increases the absolute risk of fetal malformations, and this risk increases proportionally to the degree of obesity [45–47].

The pathogenesis of these disorders is not completely clear, but it is assumed to be related to metabolic and hormonal disorders, primarily hyperinsulinemia.

A systematic review and meta-analysis of observational studies showed that obese mothers had an increased risk of developing neural tube defects (RR1.87, 95% CI 1.62–2.15), spina bifida (RR) 2.24, 95% CI 1.86-2.69), cardiovascular abnormalities (RR 1.30, 95% CI 1.12-1.51), septal defects (OR 1.20, 95% CI 1 , 09-1.31), cleft lip and palate (OR 1.20, 95% CI 1.03-1.40), anorectal atresia (OR 1.48, 95% CI 1.12-1.97), hydrocephalus (OR 1.68, 95% CI 1.19-2.36) and limb abnormalities (OR 1.34; 95% CI 1.03-1.73) .

These data have a number of limitations, that is, prenatal ultrasound diagnosis of intrauterine abnormalities in obese women is significantly more difficult, which leads to later diagnosis and a decrease in abortion for medical reasons [50]. Several studies did not exclude from the analysis women with diabetes before pregnancy, which is an additional risk factor for congenital anomalies and may have influenced the findings [51]. Obesity criteria and diagnostic methods varied across studies.

Induction and spontaneous labor (PR). Obesity increases the risk of spontaneous and medically indicated PR, primarily hypertension, preeclampsia,

and carbohydrate metabolism disorders. The pathogenesis of PR must involve vascular and pro-inflammatory factors. A systematic review showed that the relative risk of PR in overweight and obesity was 1.30, 95% CI 1.23–1.37 (compared to women with normal body weight) and increased with increasing BMI [39].

Delaying pregnancy. Recently, more and more information has appeared on the association between obesity and long-term pregnancy [29, 41-43]. In 4 large population-based cohort studies, a 1.2-1.7-fold increased risk of long-term pregnancy was shown in obese women [29, 30, 41, 43]. It is assumed that hormonal disturbances in obesity can slow down the induction of labor.

Congenital fetal anomalies. Maternal obesity slightly increases the absolute risk of fetal malformations, and this risk increases proportionally to the degree of obesity [45–47].

The pathogenesis of these disorders is not completely clear, but it is assumed to be related to metabolic and hormonal disorders, primarily hyperinsulinemia.

A systematic review and meta-analysis of observational studies showed that obese mothers had an increased risk of developing neural tube defects (RR1.87, 95% CI 1.62–2.15), spina bifida (RR) 2.24, 95% CI 1.86-2.69), cardiovascular abnormalities (RR 1.30, 95% CI 1.12-1.51), septal defects (OR 1.20, 95% CI 1 , 09-1.31), cleft lip and palate (OR 1.20, 95% CI 1.03-1.40), anorectal atresia (OR 1.48, 95% CI 1.12-1.97), hydrocephalus (OR 1.68, 95% CI 1.19-2.36) and limb abnormalities (OR 1.34; 95% CI 1.03-1.73) .

These data have a number of limitations, that is, prenatal ultrasound diagnosis of intrauterine abnormalities in obese women is significantly more difficult, which leads to later diagnosis and a decrease in abortion for medical reasons [50]. Several studies did not exclude from the analysis women with diabetes before pregnancy, which is an additional risk factor for congenital anomalies and may have influenced the findings [51]. Obesity criteria and diagnostic methods varied across studies.

Certainly, obese women are more likely to suffer from diabetes and hypertension than women of normal body weight, which may be one of the explanations for perinatal mortality.

However, this risk remains even if violations are well controlled. The potential mechanisms of formation of these events include the metabolic consequences of obesity (hyperlipidemia with decreased production of prostacyclin), decreased fetal mobility, and a period of temporary hypoxia.

Macrosomia. Both a woman's obesity before pregnancy and excess weight gain during pregnancy affect the formation of macrosomia (that is, the size of the fetus for the period of pregnancy (weight > 4 kg and length at birth > 54 cm)).

Many studies have shown a linear relationship between pre-pregnancy maternal BMI and newborn weight [3, 51, 53]; Thus, obese mothers have a higher incidence of macrosomia [1, 2, 10, 29, 41]. These relationships are independent of the incidence of GDM in obese women [4, 51, 53].

Macrosomia has 2 possible complications: shoulder dystocia and a tendency to later develop obesity. According to data from prospective cohort studies, normalizing body weight in obese women reduces the risk of having a large fetus [58, 59].

Autism and other mental development disorders in children. A population-based study found an association between maternal IR and the incidence of autism and other intellectual developmental disorders in children [54]. This observation requires further confirmation.

In addition to its negative effects on reproductive function, obesity can lead to cardiovascular and cerebrovascular diseases, type 2 diabetes, sleep apnea syndrome, osteoarthritis, and certain types of cancer. Therefore, the questionnaire may contain other studies. The tactics of preparing obese women before conception should include the following.

• compensation / elimination of endocrine diseases (if any);

• increased sensitivity to insulin (with identified disturbances of carbohydrate metabolism);

• Losing weight;

• support of the luteal phase with progesterone preparations.

To optimize reproductive function and improve pregnancy outcomes in obese women, weight loss should be achieved during pregnancy planning

The first recommendation for obesity is a change in diet, an active lifestyle, and a change in behavioral responses.

No diet has shown a significant benefit in nutritional performance, so the key is to reduce the amount of food consumed and increase physical activity [62]. If within 3 months. 5% of body weight loss is not achieved against the background of lifestyle changes, drug therapy is started [1-3].

Summary. Obesity in women of reproductive age is associated with a number of common somatic and reproductive problems, which leads to a decrease in fertility. Adipose tissue is the site of peripheral synthesis of many hormones, and also takes an active part in the work of the vascular system and the formation of immunity, so its excess content is accompanied by metabolic, hormonal, vascular and inflammatory diseases.

Compared to women with normal body weight, the frequency of spontaneous pregnancy and the effectiveness of infertility treatment with various methods (stimulation of ovulation, ART) are reduced in obese women. After pregnancy, obese women have an increased risk of congenital fetal abnormalities, macrosomia, stillbirth, gestational hypertension, gestational diabetes, preterm birth, and a number of other complications. Weight loss has a positive effect on menstrual function, increases the likelihood of pregnancy and the birth of a healthy child, and reduces the risk of negative pregnancy outcomes.

Adabiyotlar

1. Морбид семизлик / под ред. И.И. Дедова. М.: МИА, 2014. 605 с.

2. Ковалева Ю.В. Роль ожирения в развитии нарушений менструальной и репродуктивной функции // Российский вестник акушера-гинеколога. 2014. Т. 14. № 2. С. 43–51.
3. American College of Obstetricians and Gynecologists. ACOG Committee opinion no. 549: obesity in pregnancy // Obstet Gynecol. 2013. Vol. 121. P. 213.
4. Owens L.A., O'Sullivan E.P., Kirwan B. et al. ATLANTIC DIP: the impact of obesity on pregnancy outcome in glucose-tolerant women // Diabetes Care. 2010. Vol. 33. P. 577.
5. Ramsay J.E., Ferrell W.R., Crawford L. et al. Maternal obesity is associated with dysregulation of metabolic, vascular, and inflammatory pathways // J Clin Endocrinol Metab. 2002. Vol. 87. P. 4231.
6. Marshall N.E., Guild C., Cheng Y.W. et al. Maternal superobesity and perinatal outcomes // Am J Obstet Gynecol. 2012. Vol. 206. P. 417.
7. Reynolds R.M., Allan K.M., Raja E.A. et al. Maternal obesity during pregnancy and premature mortality from cardiovascular event in adult offspring: follow-up of 1 323 275 person years // BMJ. 2013. Vol. 347. P. 4539.
8. Flegal K.M., Carroll M.D., Kit B.K., Ogden C.L. Prevalence of obesity and trends in the distribution of body mass index among US adults, 1999-2010 // JAMA. 2012. Vol. 307. P. 491.
9. Ogden C.L., Carroll M.D., Kit B.K., Flegal K.M. Prevalence of obesity among adults: United States, 2011-2012 // NCHS Data Brief. 2013. Vol. 1.
10. Lu G.C., Rouse D.J., DuBard M. et al. The effect of the increasing prevalence of maternal obesity on perinatal morbidity // Am J Obstet Gynecol. 2001. Vol. 185. P. 845.
11. Glueck C.J., Wang P., Goldenberg N., Sieve-Smith L. Pregnancy outcomes among women with polycystic ovary syndrome treated with metformin // Hum Reprod. 2002. Vol. 17. P. 2858.
12. Thatcher S.S., Jackson E.M. Pregnancy outcome in infertile patients with polycystic ovary syndrome who were treated with metformin // Fertil Steril. 2006. Vol. 85. P. 1002.
13. van der Steeg J.W., Steures P., Eijkemans M.J. et al. Obesity affects spontaneous pregnancy chances in subfertile, ovulatory women // Hum Reprod. 2008. Vol. 23. P. 324.
14. Yunusova A., Zakirova F. THE EFFECTIVENESS OF OZONE THERAPY IN THE TREATMENT OF CHRONIC ENDOMETRITIS //Молодой исследователь: вызовы и перспективы. – 2020. – С. 443-445.
15. Kamarova I., Yunusova A., Abdisayitova C. MODERN ASPECTS OF REHABILITATION OF WOMEN WITH POSTNATAL PERINEAL INJURIES //Science and innovation. – 2022. – Т. 1. – №. D8. – С. 641-646.
16. Nuriddinovna K. I., Nuriddinovna K. M. MODERN ASPECTS OF REHABILITATION OF WOMEN WITH POSTNATAL PERINEAL

INJURIES //American Journal of Interdisciplinary Research and Development. – 2022. – T. 9. – C. 261-265.