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Pregorexia: Eating Disorder in Pregnancy

Pregoreksiya: Gebelikte Yeme Bozukluğu

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ABSTRACT

Pregorexia, the eating disorder observed during pregnancy, is a condition that negatively affects the health of the mother and the baby. The frequency of thin body perception, which has entered our lives with popular culture, is increasing. Pregorexia negatively affects both the health of the mother and the development of the baby. Pregnancy is a complex physiological and spiritual period for the mother. First of all, clinicians should be careful about eating disorders during pregnancy. Pregnant women may be unnoticed in terms of eating disorders in the outpatient clinic. In the treatment duration, it is very important to inform the mother about the importance of nutrition during pregnancy. The mother should be informed about nutrition and psychiatric treatment support should be provided. It is important for clinicians to know about pregorexia, which is an important health problem for both mother and baby.
Keywords: Pregnancy, eating disorder, anorexia nervosa, pregorexia

ÖZ

Pregoreksiya, gebelikte gözlenen yeme bozukluğu annenin ve bebeğin sağlığını olumsuz etkileyen bir tablodur. Artan popüler kültürle birlikte hayatımıza giren ince beden algısı ile birlikte giderek sıklığı artmaktadır. Pregoreksiya hem annenin sağlığını hem de bebeğin gelişimini olumsuz etkilemektedir. Gebelik anne için karmaşık fizyolojik ve ruhsal bir süreçtir. Klinisyenler öncelikle gebelikte yeme bozukluğu açısından dikkatli olmalıdır. Gebeler poliklinikte yeme bozukluğu açısından gözden kaçabilmektedir. Tedavi sürecinde ise annenin gebelikte beslenmenin önemi konusunda bilgilendirilmesi çok önemlidir. Anneye hem beslenme konusunda bilgi verilmeli hem de ruhsal destek sağlanmalıdır. Anne ve bebek için her yönden sağlık sorunu teşkil edecek olan pregoreksiyanın klinisyenler tarafından bilinmesi önemlidir
Anahtar sözcükler: Gebelik, yeme bozukluğu, anoreksiya nervoza, pregoreksiya

Introduction

A healthy and balanced nutrition is a balanced and adequate intake of all the essential nutrients that a person needs. During pregnancy, the mother should have an adequate and balanced diet for the healthy development of both herself and the fetus, as well as maintain the weight balance and take all the nutrients she needs. The need for calories and nutrients increases in every stage of pregnancy, especially in the first trimester. Nutrition during pregnancy is important in order for the baby to have complete developmental stages and for the mother to have a healthy pregnancy process (Procter and Campbell 2014). In addition to the amount of calories taken during pregnancy, it is necessary to take adequate vitamins and minerals. Excess calories alone are not the main goal. It is observed that pregnant women present to clinics more frequently with excessive weight gain. This may lead to ignoring weight loss or malnutrition in pregnant women (Çelik and Samur 2018).

Although weight gain is more prominent during pregnancy, some of the pregnant women may also experience weight loss due to excessive fear of weight gain and resort to restrictive diets during pregnancy. Although weight loss is not observed very often during pregnancy, it should be considered by clinicians in terms of its possible consequences. Pregnancy is a process of change for the mother's body, both physiologically and psychologically. Especially recently, with the encouragement of popular culture, the restriction of weight gain in pregnant women has been increasing.

Pregorexia has only recently been described in the literature. Data to guide clinicians in terms of diagnosis and treatment during pregnancy are limited. In our research, the original articles and reviews were searched with the terms pregorexia, nutrition during pregnancy, eating disorder during pregnancy published in Google Scholar and PubMed from past to present. It is aimed to contribute to the literature on pregorexia, which is a new diagnosis, with classical review method.

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Pregorexia

According to DSM 5, eating disorders describe disorders associated with eating and eating behavior that consistently interfere with the consumption or absorption of food. However, there is no definition of pregorexia in DSM 5. For this reason, there is no definite information in the literature about how much of the eating disorders in DSM 5 cover the diagnosis of pregorexia. Pregorexia can be defined as the clinical findings of anorexia nervosa and bulimia nervosa being seen for the first time during pregnancy. It is a term that clinicians do not use much yet (Takimoto ve ark. 2011, Harasim-Piszczatowska ve Krajewska-Kułak 2017).

Controversy continues regarding pregorexia as a separate definition. It is possible to have an eating disorder during pregnancy as a continuation of pre-existing risky eating behaviors. However, in some clinical situations, it can be observed for the first time during pregnancy. Data on whether pregorexia is observed for the first time during pregnancy or whether it is a reflection of an ongoing eating disorder to pregnancy are limited. For this reason, it is difficult for clinicians to distinguish clinically from the baseline period. However, the common view is that pregnancy is a risky period for eating disorders and pregorexia is an eating disorder that occurs during pregnancy. The absence of diagnostic criteria and the incomplete classification of the symptoms of pregorexia make the diagnosis difficult. Although there is no diagnostic system used in the clinic, the diagnosis of pregorexia can be made by evaluating the risk factors and considering the DSM 5 diagnostic criteria of eating disorders. Eating disorders are more common in women of reproductive age. Therefore, the incidence may increase during pregnancy. (Bannatyne et al. 2018, Janas-Kozik et al. 2021).

Effects on Mother and Fetus

Pregnancy is a complex process both physiologically and psychologically. Symptoms of eating disorders may increase during pregnancy or may decrease in some cases. The mother's instinct to protect her baby may improve the symptoms of eating disorder. However, the findings in the literature suggest that patients with eating disorders in the past are at higher risk for pregorexia (Micali et al. 2007, Bannatyne et al. 2018). Eating disorder symptoms may increase due to increased concerns about changes in body image during pregnancy. For this reason, mothers may restrict their food intake due to visual concerns (Kaiser and Allen 2008). Anemia and hypertension have been reported in mothers who did not have adequate and balanced nutrition during pregnancy. In particular, iron deficiency anemia is observed more frequently and this leads to developmental delay in the infant. It has also been shown that maternal anemia is associated with mood disorders such as depression (Linna et al. 2013). The emergence of depressive disorder symptoms due to the mother's eating disorder also negatively affects the mother's caregiving process for her baby after birth. There may be difficulties in the newborn period, such as attachment problems in the mother and the baby, and the mother's difficulty in caring for the baby. However, it has been observed that mothers with pregorexia breastfeed their babies for a shorter period of time. Eating disorders do not only have physical effects during pregnancy, but also affect mood of the mother (Table 1). The mother's excessive concern with body image can also create difficulties in accepting the pregnancy process. Loss of self-confidence, depressive affect, negative feelings towards herself and her body can be seen in the mother (Watson et al. 2014). As a result of these processes, it has been observed that women with eating disorders experience more depression and anxiety during pregnancy and postpartum period (Nguyen et al. 2017). In addition, the mother's depression and anxiety before pregnancy increases the frequency of eating disorders. In addition to these situations observed during pregnancy, mothers may have more concerns about the baby in the postpartum period and may have difficulty in providing care (Watson et al. 2015).

Table 1. Effects of eating disorder in pregnancy on the mother
Increase in obstetric complications
Iron deficiency anemia
Hypertension
Increased risk of cesarean section
Increased risk of depressive disorder
Mother-infant attachment disorder

Considering the effects of pregorexia on the fetus, malnutrition of the mother may cause clinical pictures such as failure in placental development, premature rupture of membranes, and uterine infections. This can lead to complications such as premature birth, stillbirth, and sepsis. Studies have shown that mothers with eating disorders during pregnancy have more frequent cesarean sections, a decrease in the Apgar score of the baby, and more frequent birth complications. The fetus may be underweight, developmental problems may be observed, neural tube defects, microcephaly, and sudden death may be seen. Especially in the last 3 months of pregnancy, the frequency of sudden death increases in the babies of mothers with malnutrition (Keen et al. 2003). Babies

of these mothers may experience low birth weight and stillbirth. In addition, spontaneous preterm birth and microcephaly are among the observed conditions. (Tuncer et al. 2020). Among the eating disorders, the most dangerous behavior of the mother is taking substances such as laxatives, caffeine, and diuretics. This situation can lead to very serious manifestations. Complications such as electrolyte imbalance, growth retardation, and sudden death may develop in the fetus. In addition, mothers can exercise excessively for weight loss. Although there are studies reporting that exercise during pregnancy is healthy for the mother and the baby, there are data showing that excessive exercise will especially reduce fetal blood flow and cause fetal distress (Keen et al. 2003) (Table 2).

Table 2. Effects of eating disorder in pregnancy on the fetus
Premature birth
Low birth weight
Microcephaly
Low apgar score
Increased sudden infant death
Increased risk of stillbirth

Epidemiology

Eating disorders are generally more common in women, however, an increase in eating disorder symptoms can be observed during and after pregnancy. It has been reported that deterioration in eating attitude during pregnancy varies between 0.6% and 27.8%. There is no scale to evaluate eating behavior during pregnancy. In addition, there is no diagnostic classification with clear criteria yet. When all processes such as physiological changes during pregnancy, decrease and increase in appetite, nausea, and psychological changes are taken into account, the data on eating disorders during pregnancy may not be clear (Easter et al. 2013). The overall incidence has been reported as 5% (Tuncer et al. 2020). Although there are no diagnostic criteria for pregorexia, almost all symptoms during pregnancy are similar in all women. There is no structured scale used in the diagnosis of eating disorder during pregnancy yet. Eating disorder screening scales have been used in some studies. In this case, the data obtained do not fully reflect the correct data. In some studies, data were collected using self-report scales that screen for eating disorder symptoms in pregnant women. The rates of frequency obtained in these studies vary (Bye et al. 2020).

Etiology

Pregnancy is a risky period for the development of eating disorder. Both the mother's concerns about her baby and her negative affect about her body image can be a source of internal distress. Although there is an eating behavior disorder that develops with visual anxiety in the mother in the development of eating disorders, there is also a cognitive disorder. Eating disorders are more common especially in women and adolescents. Factors such as negative life events, stressful periods, childhood traumas can trigger eating disorder behavior (Çelik et al. 2018).

Eating disorder behaviors such as the mother's restrictive diet, excessive mental preoccupation with weight, feeding with small meals, and skipping meals can be observed. In addition, factors such as the mother's speech as if she is not pregnant, low awareness of her pregnancy, and previous eating disorder are predictors for pregorexia. Being under the age of 30, presence of previous sexual trauma, presence of psychostressors, accompanying disorders such as depression and anxiety, being the first pregnancy are risk factors for pregorexia. Especially the first pregnancy is a difficult process for the mother. Stressors such as the first step to motherhood, uncertainty, and the process of getting used to parenthood can lead to increased anxiety in the mother (Czech-Szczapa et al. 2015).

Eating disorders in pregnancy are on the rise with the images of thin mothers exaggeratedly emphasized in the media in the age of popular culture, mothers who do not gain weight, and encouraging news for mothers who return to their old weight or even lower weight immediately after giving birth. A history of eating disorders in the mother is a risk factor for the fetus and the mother (Tuncer et al. 2020). Absence of weight gain during pregnancy, symptoms of depression, prolonged hyperemesis gravidarum may be predictive for pregorexia (Hawkins and Gottlieb 2013). The inability to adapt to the structural, endocrinological and psychological changes during pregnancy can be considered as a risk for the development of eating disorders, even in women without eating disorder symptoms (Andersen and Ryan 2009).

From a psychodynamic point of view, although the underlying mechanisms are not clear, it is thought that there are causes similar to anorexia. Many reasons such as body image perception, being weak, childhood traumas, neglect may be the underlying reasons for this process. In addition, the constant imposition of the image of weak women by the media and the exaggerated perception of people are also effective in this process (Mathieu 2009). Many studies have been conducted on the etiology of eating disorders outside of pregnancy. However, there is limited information on the etiology of eating disorders that develop during pregnancy (Linna et al. 2013) (Table 3).

Table 3. Risk factors for the development of eating disorder in pregnancy
Being under 30 years old
First pregnancy
Having a previous history of eating disorders
History of sexual trauma
Presence of psychiatric illness
Decreased family support
Presence of previous psychiatric trauma
Unintended pregnancy

Treatment

Although weight gain is observed more frequently than weight loss during pregnancy, this situation, which is dangerous for fetus and mother, should be well known and evaluated by clinicians. Fear of gaining weight, low body mass index, malnutrition, and psychological problems in the pre-pregnancy period are risky in terms of pregorexia during pregnancy. Clinicians should be careful in this regard, identify risk factors and intervene before pregnancy. The presence of prolonged hyperemesis gravidarum, lack of expected weight gain despite increasing pregnancy duration, maternal eating disorder behaviors, recurrent vomiting, weight gain, and excessive mental preoccupation should be warnings for clinicians (Hawkins and Gottlieb 2013). Eating patterns and nutritional behaviors should definitely be questioned in pregnant women with warning symptoms. Sometimes pregnant women cannot express their complaints due to anxiety. Or, with excessive anxiety, she herself may not be aware of the eating disorder. In such a case, eating disorder symptoms should be evaluated without waiting for the pregnant woman to express herself. Treatment of pregorexia requires a multidisciplinary approach. The treatment team should include an obstetrician, psychiatrist, psychologists, internists, dietitian, midwife and nurse. The whole team should work in cooperation and support the pregnant woman in this process. During the treatment process, the importance of healthy nutrition for the mother and her baby should be explained first. Education about nutrition should emphasize the importance of mother's nutrition for the development of the baby. With a good education and information, it is often possible to turn the mother's attention to the healthy development process rather than weight. The mother should be educated in detail about the necessary nutrients, the variety and amount of nutrients and their functions (Rasmussen et al. 2010). In this process, the mother's psychiatric condition and her concerns about the baby should be followed. Depressive symptoms of the mother should be screened, if possible, treatment should be arranged for additional diagnoses. Together with the nutrition education of the mother, efforts should be made to ensure that she has a good pregnancy mentally. Instead of focusing on weight gain, the mother should be supported for optimal weight gain and a healthy pregnancy process. The mother should be informed about the negative consequences of factors such as diuretics, weight loss drugs, and excessive exercise for the pregnancy and the baby. The body mass index of the mother should be measured and recorded before birth and if possible before pregnancy, and the healthy weight gain of the mother should be followed up with a dietitian in this process. Factors such as the perception of eating for two, changing appetite, and psychological stress in mothers may make it difficult to identify an eating disorder. Underlying symptoms can be hidden. In addition, fear of stigma and the mother's reservations may cause her to hide her symptoms. For this reason, health professionals should be careful about eating disorders and should cooperate with the mother. They should have sufficient knowledge about eating disorders during pregnancy such as pregorexia. The most important stage of the treatment is therapeutic cooperation, as the occasional increase and decrease in the symptoms of the pregnant woman and the attempt of the pregnant woman to hide it will complicate the diagnosis process (Franko and Walton 1993).

The most important issue for the development of the baby is the mother's adequate and balanced nutrition. The mother's diet should be regulated to ensure that she receives all the necessary nutrients and optimal insulin levels. The nutrition program should be spread throughout the day. It should be arranged as a meal every 3-4 hours. During this period, the average calorie needs of the mother varies between 2200-2900 kcal. The mother's weight, height, metabolism, age affect this value, these values are average values (Kaiser and Allen 2008). 50-

60% of the nutrients should be from carbohydrates, and the diet should contain food groups containing essential amino acids such as eggs, meat and fish in an adequate and balanced manner. In this process, the daily protein requirement is 0.3 g/kg. In order to meet the protein need, it is necessary to provide the majority of animal proteins. A diet containing essential fatty acids should be provided. The optimal weight to be gained during pregnancy is between 12.5-18.0 Kg. It is expected that mothers will show ideal weight changes during pregnancy. In addition, the average daily calorie intake requirement of the mother increases by 360 kcal in the second trimester and 475 kcal in the third trimester. Weight loss due to nausea and vomiting can be seen in the early stages of pregnancy. In the first trimester of pregnancy, the weight should increase about 2 kg (BMI <18.5) in women with normal body weight, about 1.6 kg (BMI 18.5-24.9) in women with normal body weight, and about 1 kg in women with overweight (BMI 25.0-29.9). Mothers with a weight gain below this increase should be careful in terms of eating disorders. The most important step for the development of the baby is a healthy diet of the mother. Özellikle kahvaltı ve öğle öğünleri önemlidir. Anne bu süreçte profesyonel beslenme desteği almalıdır (Mandera ve ark. 2019).

Table 4. Recommendations to clinicians in the treatment of eating disorders during pregnancy
From the period after the pregnancy decision is made, education should be given on nutrition, food supplement and diet regulation
Treatment of psychiatric diseases before pregnancy should be arranged
Education should be given on the nutrition system necessary for the development of mother and baby
Care should be taken in terms of the development of depression and anxiety during pregnancy
The mother's weight should be monitored
Education should be given to the mother about nutritional needs and calorie intake
Breastfeeding should be supported
Baby's development and birth weight should be monitored
The mother's weight should be followed up after the birth, and she should be monitored for eating disorders.

Conclusion

Pregorexia is still underrecognized by clinicians. The absence of diagnostic classification and measurement tools complicates the diagnosis and follow-up process. Although the definition of pregorexia is a definition that enters our lives later than other eating disorders, there are pregnant women with eating disorders in clinics. Considering the risks for both mother and fetus, it is important to be careful in terms of treatment, follow-up and risk factors and to provide a multidisciplinary approach. Information on pregorexia is limited in the literature. There is a need for new information and research, especially in this area. Studies with larger series should be conducted on the etiology and epidemiology of pregorexia, especially the symptoms of eating disorders during pregnancy should be defined and scales should be developed in this area.

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