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ARAŞTIRMA MAKALESİ

Evaluation of acute stress disorder after pregnancy loss

Gebelik Kaybı Sonrası Akut Stres Bozukluğunun Değerlendirilmesi

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ABSTRACT

Aim: Our study aimed to assess and prevent acute stress disorder in women with pregnancy loss.

Materials And Methods: Pregnant women presenting to the Department of Obstetrics and Gynecology at level 2 centers between March 2019 and March 2021 were included in the study. Women with pregnancy loss of fewer than 21 weeks were assigned to the "pregnancy loss group" and women with healthy pregnancies were assigned to the "control group." After the questionnaire, patients were asked to complete the post-traumatic stress disorder (PTSD) scale. in the study, 91 (35%) were in the pregnancy loss group and 156 (65%) were in the control group. Statistically, p <0.05 was considered significant.

Results: The mean age of the patients with pregnancy loss was 27.52±5.60 years, whereas the pregnant women in the control group were 26.43±5.44 years old. The mean age of the two groups was similar (p=0.656). The PTSD score of the participants was 33.10±9.3 (min=15, max=49). The mean PTSD score of the cases who suffered pregnancy loss was 36.23±9.49 and 31.12±7.34 in the control group. The PTSD score of the group with pregnancy loss was significantly higher than that of the control group (p=0.003).

Conclusion: symptoms of acute stress disorder were found to be more common in women who experienced pregnancy loss. Couples who have suffered pregnancy loss should receive social and psychological support. Psychological support and counseling are very important for the couple's psyche. In this way, the woman's disorder can be prevented from developing into post-traumatic stress disorder.

Keywords: Acute Stress; Pregnancy Loss; Miscarriage

ÖZ

Amaç: Çalışmamızın amacı gebelik kaybı olan kadınlarda akut stres bozukluğunu değerlendirmek ve önlemektir.

Gereç ve Yöntem: Mart 2019-Mart 2021 tarihleri arasında 2. basamak merkezlerde Kadın Hastalıkları ve Doğum Kliniğine başvuran gebeler çalışmaya dahil edildi. 21 haftadan daha az gebelik kaybı olan kadınlar “gebelik kaybı grubu”na, sağlıklı gebelikleri olan kadınlar ise “kontrol grubu”na ayrıldı. Anketin ardından hastalardan travma sonrası stres bozukluğu (TSSB) ölçeğini doldurmaları istendi. Çalışmada gebelik kaybı grubunda 91 (%35), kontrol grubunda 156 (%65) hasta yer aldı. İstatistiksel olarak, p <0,05 anlamlı kabul edildi.

Bulgular: Gebelik kaybı olan hastaların ortalama yaşı 27.52±5.60 iken kontrol grubundaki gebelerin yaşı 26.43±5.44 idi. İki grubun yaş ortalaması benzerdi (p=0.656). Katılımcıların TSSB puanı 33.10±9.3'tür (min=15, max=49). Gebelik kaybı yaşayan olguların ortalama TSSB puanı 36.23±9.49 ve kontrol grubunda 31.12±7.34 idi. Gebelik kaybı olan grubun TSSB puanı kontrol grubuna göre anlamlı olarak yüksekti (p=0.003).

Sonuç: Gebelik kaybı yaşayan kadınlarda akut stres bozukluğu belirtilerinin daha sık olduğu saptanmıştır. Gebelik kaybı yaşayan çiftler sosyal ve psikolojik destek almalıdır. Psikolojik destek ve danışmanlık çiftlerin psikolojisi için çok önemlidir. Bu şekilde kadındaki rahatsızlığın travma sonrası stres bozukluğuna dönüşmesi engellenebilir.

Anahtar Kelimeler: Akut Stres; Gebelik Kaybı; Düşük

Introduction

During pregnancy, women experience psychological, social, and physical changes, and pregnant women try to adapt to this process. Termination of a pregnancy before 20 weeks gestation is called miscarriage and is the most common cause of pregnancy loss(1). Termination of a pregnancy before 20 weeks gestation is called a miscarriage and is the most common cause of pregnancy loss(2). The rate of pregnancy loss is 14-29% in women aged 25-30 years and 75% in women aged 45-48 years. Pregnancies that end in the first 12 weeks account for 10-20% of all pregnancies(1-3). Psychiatric disorders occur in 45%-50% of women after spontaneous abortion(1, 4). While the incidence of major depression in the general population is 3-10%, this rate has been found to increase to 12-50% in women who have had an abortion(5). It has been found that 25-40% of women suffer from anxiety disorders after early abortion and 35% develop post-traumatic stress disorder (PTSD)(6). The aim of this study was to assess and prevent acute stress disorder (ASD) after abortion in women.

Material And Methods

Pregnant women presenting to the Department of Gynecology and Obstetrics at level 2 centers between March 2019 and March 2021 were included in this study. Patients with pregnancy loss (< 21 weeks) after enrollment in the study formed the "pregnancy loss group" and those with a healthy pregnancy formed the "control group." Those who volunteered to participate in the study were informed before the study, and those who gave consent were enrolled in the study. The questionnaire prepared by the researchers was administered to the participants during face-to-face interviews. The first part of the questionnaire asked for the participants' sociodemographic data, and the second part asked for their obstetric history. Patients were also asked to complete the post-traumatic stress disorder (PTSD) scale. Of the 247 patients who completed the questionnaire, 91 (35%) were included in the pregnancy loss group and 156 (65%) in the control group. Women who had experienced pregnancy loss were included in study 2-28 days after pregnancy loss. In the post-traumatic stress disorder (PTSD) scale, symptoms in the questions are graded between 1 and 5 depending on the severity. The literature states that the 50-point PTSD score is the cut-off value for ASD. Statistical analysis was performed using the SPSS 25.0 program. For data analysis, mean, frequency, and standard deviation were calculated, and to show the difference between the two groups, parametric

values were evaluated with Student's t-test and nonparametric values with Mann Whitney U-test. Statistically, $p < 0.05$ was considered significant. Ethics committee approval was obtained for this study in accordance with the Declaration of Helsinki.

Results

The mean age of participants was 26.82±5.26 (min=17, max=48). The mean age of patients who lost their pregnancy was 27.52±5.60 years, and that of patients whose pregnancies continued was 26.43±5.44 years. The mean age of the two groups was similar (p=0.754). The economic income level (p=0.359), occupation (p=0.224), place of residence (p=0.367), and education level (p=0.591) of the "pregnancy loss group" and the "control group" had similar characteristics. The sociodemographic data of the groups can be found in the table.(Table 1).

Table 1. Sociodemographic data of the participants

	Variables	Total n (%)	Group experiencing pregnancy loss n (%)	Control Group n (%)	p
Income	<5000	157 (61.1)	62 (68.2)	97 (62.2)	0.359
	5000-10000	43 (17,4)	14 (15.4)	28 (17.8)	
	10000-15000	17 (7)	6 (6.5)	10 (6.5)	
	>15000	30 (14)	9 (9.9)	21 (13.5)	
Education level	Primary	148 (59.9)	57 (62.6)	93 (59.6)	0.09
	secondary	59 (23.8)	19 (20.8)	33 (21.1)	
	High school	40 (16.3)	15 (16.6)	30 (19.3)	
Residential area	Rural	149 (60.3)	58 (63.7)	94 (60.2)	0.325
	Urban	98 (39.7)	33 (36.3)	62 (39.8)	

It was found that 15 of the participants (6%) had gestational hypertension, 9 (3.6%) had gestational diabetes mellitus, and 223 (91.4%) had no disease. It was found that 10 (10.9%) of the patients in the pregnancy loss group had gestational hypertension, 3 (3.2%) had gestational diabetes mellitus, and 78 (85.9%) had no disease. In the control group, 7 (4.4%) had gestational hypertension, 5 (3.2%) had gestational diabetes mellitus, and 144 (92.4%) had no diagnosed disease. The disease history of the two groups was similar (p=0.05).

It was found that women in the pregnancy loss group experienced an average of 9.24±4.78 weeks of pregnancy, while the average week of pregnancy in the control group was 9.11±5.18. The mean age at marriage among women was 21.14±4.20 years (min=16, max=35). The mean age at marriage was 19.48±3.20 years in the pregnancy loss group and 20.11±3.42 years in the control group. The mean age at marriage of the two groups was similar (p=0.325). The mean total number of pregnancies in the cases was found to be 2.53±1.42. The mean number of pregnancies in the pregnancy loss group was 3.69±2.35, while in the control group it was 2.78±1.90. The mean total number of pregnancies was significantly higher in the pregnancy loss group than in the control group (p=0.003).

The mean PTSD score of the participants was 33.10±9.3 (min=15,max=49). The mean PTSD score of the cases in the pregnancy loss group was 36.23±9.49 and 31.12±7.34 in the control group. It was found that the PTSD score of the group that suffered pregnancy loss was significantly higher than that of the control group (p=0.002). It was found that 77 (84.6%) of the 91 cases who had suffered pregnancy loss had a score below the scale cut-off score (< 50) and 14 (15.4%) had a score above the scale cut-off score (≥50). It was found that all members of the control group (n=156) scored below the scale cut-off value. It was found that the cases who had pregnancy loss were significantly above the cut-off value compared to the control group cases (p=0001).

In the pregnancy loss group, it was found that all 14 patients whose PTSD scores were above the cut-off value had three or more previous miscarriages or stillbirths. Of the other cases in the pregnancy loss group, 19 (24.6%) had no history of miscarriage or stillbirth, 18 (23.4%) had one, 24 (31.2%) had two, and 16 (20.8%) had three or more. He reported having a history of multiple miscarriages or stillbirths. There was a significant association between a previous miscarriage or stillbirth and a score above the PTSD cut-off value (p=0.001).

Cases in the pregnancy loss group that were above or below the PTSD cut-off had similar values: educational level (p=0.513), place of residence (p=0.601), income level (p=0.177), medical history (0.119), and occupational characteristics (p=0.257).

Discussion

In our study, participants were assumed to be diagnosed with ASD based on the scores they received for PTSD. In the study by Kersting et al, 50 points or more for PTSD was accepted as the cutoff for ASD(7). Previous studies have shown that 57-83% of cases with ASD later develop PTSD and that ASD is a risk factor for PTSD(6). In our study, it was found that the average PTSD score of women who had experienced pregnancy loss was significantly higher than that of healthy controls. In addition, our study found that 12% of women met criteria for ASB 2-28 days after pregnancy loss. In a similar study by Slade et al, 1370 women were studied after pregnancy loss, and they reported that the rate of meeting PTSD criteria was 25% after one month and 4% after four months(8). However, they attributed the decrease in PTSD rate to the fact that there were patients who could not complete the study and stated that the PTSD rate should be between 4-10%(8). Another study found that the rate of ASB was 10% one week after pregnancy loss and 1% one month later(9). Another study found that 15% of women met criteria for ASB at week 3 after early pregnancy loss. Our study contains similar findings to other studies(10). The introduction of psychological and social support mechanisms for those who have experienced pregnancy loss is important for the health of these individuals(11).

In our study, the age, educational level, place of residence, and socioeconomic status of the participants were similar in both groups. It was found that there was no significant difference between the mean PTSD scores in the patient group by age, education level, place of residence, and socioeconomic status. In reviewing the literature, many studies have shown that there is no association between age, marital status, social class, and psychiatric morbidity after pregnancy loss. Our study is consistent with other studies.

In our study, it was found that 14 patients who met the criteria for ASD and scored above the cut-off on the PTSD scale had three or more previous miscarriages. A significant association was found between the miscarriage or stillbirth in the participants' history and the mean score they achieved on the PTSD scale. Examining data from two population-based cross-sectional studies, Szepietowska et al. found that pregnancy loss and risk for psychiatric

disorders increased in their study(12). In addition, earlier pregnancy loss has been shown to negatively affect mood and psychological well-being, particularly in young women(13). In addition, they reported that depressive symptoms and depressive disorders were more common in women with a history of pregnancy loss(14). Considering this situation, these women need to seek psychiatric help after pregnancy loss and during their new pregnancies, both for their health and that of their baby(14).

In our study, the mean pregnancy loss was found to occur at 9.24±4.78 weeks, and the mean PTSD score was significantly higher than that of healthy controls. Many studies of perinatal loss suggest that maternal attachment to the fetus is related to the duration of pregnancy, and it has been shown that there is an association between experiencing more grief after pregnancy loss and the duration of pregnancy. However, there are conflicting results in studies of pregnancy loss. Some studies show a positive association between gestational age and more intense and prolonged depressive symptoms, while some studies report more depression with early pregnancy loss (< 16 weeks)(15). On the other hand, no association was found between the duration of pregnancy and psychiatric morbidity after pregnancy loss.

There are numerous limitations to this study. First, the results are based on a small sample and self-report scales. Second, the PTSD scale was used because there is no scale for assessing ASD in Turkey. Third, only acute stress symptoms were investigated and other common psychopathologies were not examined in the study.

Conclusion

In our study, symptoms of acute stress disorder were found to increase after pregnancy loss. Families affected by pregnancy loss need to receive social and psychological support, which is very important for family well-being. Effective implementation of support mechanisms in cases of increased acute stress, such as pregnancy loss, will prevent individuals from developing post-traumatic stress disorder.

Conflict of interest: No conflict of interest
Support Resources: No support resources
Ethical Declaration: Local ethics committee approval was obtained
Authorship Contributions
Concept: MB, KS, MS, Design: MB,NKB, EG,HK Supervising: MB, MS, Financing and equipment: KS, NKB,EG,HK, Data collection and entry: MB, KS,NKB,MS Analysis and interpretation: MS, EG,HK Literature search: MB,MS Writing: MB,KS,MS Critical review: KS, EG,HK

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