International Journal of Medical Science and Clinical Research Studies

ISSN(print): 2767-8326, ISSN(online): 2767-8342

Volume 03 Issue 04 April 2023

Page No: 784-787

DOI: https://doi.org/10.47191/ijmscrs/v3-i4-39, Impact Factor: 6.597

Comparison of the Effects of Vaginal and Cesarean Delivery History on Anxiety Level in a Current Pregnancy-Case Control Study

Serkan Yücel Yılancı[1], İsa Kaplan[2], Hasan Yüksel[3]

[1]Medical Doctor, Aydın Gynecology and Children's Hospital, Aydın, Turkey, **ORCID ID:** 0000-0002-4647-6448

[2]Assistant professor, Uşak University, Department of Obstetrics and Gynecology, Uşak, Turkey, **ORCID ID:** 0000-0002-0861-319X

[3]Professor, Aydın Adnan Menderes University, Department of Obstetrics and Gynecology, Aydın, Turkey, **ORCID ID:** 0000-0003-3809-1377

ABSTRACT

Objective: This study aims to compare the effects of vaginal delivery (VD) and cesarean section (CS) on anxiety experienced in the subsequent pregnancy.

Methods: It was held in Aydın Adnan Menderes University Hospital between 01.06.2013-01.06.2014. Our study is a case-control study. 172 pregnant women were included in the study. The patients were divided into two groups CS and VD, according to the type of delivery that occurred in their previous pregnancy. The Beck Anxiety Inventory (BAI) was applied to each patient. The data of the research were evaluated in SPSS v.15 and Minitab v.13.0 package programs.

Results: A total of 172 patients were included in our study, including 86 pregnant women who gave birth with CS in their previous pregnancy and 86 pregnant women who had VD. The average age of pregnant women is 28.23. According to BAI results, 50 (29.1%) of 172 patients had mild anxiety, 40 (23.3%) had moderate anxiety, and 14 (8.1%) had severe anxiety. The number of those who did not show any symptoms is 68. According to BAI, the most common finding in patients was irritability (1.0412) and a sense of bad things will happen (1.0765). When examining whether there is a significant relationship between the previous delivery method and BAI scores, a statistically significant relationship was not found in the relationship study performed with the T-Test ($p>0.05$).

Conclusion: Giving birth with a VD or CS does not affect current pregnancy and birth anxiety.

KEYWORDS: Vaginal Birth, Cesarean Section, Anxiety, Type of delivery

ARTICLE DETAILS

Published On:
30 April 2023

Available on:
https://ijmscr.org/

İNTRODUCTİON

Although pregnancy and childbirth are normal physiological processes, it is a period in which some very important and irreversible changes are experienced in a woman's physical and mental state, behavior, and lifestyle (1). Since the motherhood period of womanhood begins as a result of these changes, all negative conditions must be eliminated or minimized for the transition to this period to be completed healthily. The smooth completion of the birth, which is the beginning of motherhood, is very important in terms of the psychological and physiological structure of the mother, her lifestyle, and her psychological and physiological readiness and willingness for subsequent pregnancies (1,2). It has been reported in the literature that many variables affect this process (3). The causes of anxiety in pregnant women should be known and precautions should be taken. Our study investigated whether the previous delivery method affected the current pregnancy and birth anxiety.

METHOD

Type of Research

Our research is a retrospective case-control study.

Place and Time of Research

The population of this research consists of 172 pregnant women who gave birth in the Gynecology and Obstetrics

Service of Aydın Adnan Menderes University Hospital between June 2013 and June 2014.

Population and Sample of the Research

This study was carried out at the above-mentioned date and place. MedCalc v.10.1.6 package program was used to calculate the research sample. According to this calculation, the minimum sample size required in the study was determined as 86 vaginal delivery (VD) and 86 cesarean sections (CS), a total of 172 women, with 85% power (β=0.20) and 95% probability (α=0.05). 86 patients who gave birth with VD in the previous pregnancy and 86 patients who gave birth with CS in the previous pregnancy were included in the study. A total of 172 pregnant women were studied. Patients who received medical treatment for depression, anxiety, or any psychiatric disorder were excluded from the study. In addition, patients with twin and triplet pregnancies with higher stress levels during pregnancy were not included in the study. The study was conducted on patients with a singleton pregnancy and without a diagnosis of psychiatric disorder. Again, pregnant women with chronic diseases were not included in the study to give better results for the study. The study was designed on healthy progressing pregnancies and healthy pregnant women.

Data collecting

The Beck Anxiety Inventory (BAI), a 21-item Likert-type scale scored between 0 and 3, with a maximum score of 63 and a cut-off score of 17, was applied to pregnant women to investigate anxiety. For Beck Anxiety Inventory; 0-7 points: Minimal anxiety, 8-15 points: Mild anxiety, 16-25 points: Moderate anxiety, and 26-63 points: Severe anxiety.

Statistical Analysis

SPSS v.15 for Windows and Minitab v.13.0 computer programs were used to evaluate the data. One-way Analysis of Variance (One-way ANOVA) and Independent Samples T-Test was applied to test the difference between groups.

RESULTS

The total number of pregnant women included in the study was 172, including 86 (50%) pregnant women with VD and 86 (50%) who gave birth with CS. The ages of pregnant women vary between 19 and 39, and the general average age is 28.23. When BAI was applied to pregnant, 37 (21.5%) of them were at 37-38 weeks of pregnancy. At week, 99 of them (57.6%) were 38-39. At week 25 (14.5%) 39-40. at week and 11 at 40-41. was in the week. When the pregnant were classified according to their education levels, 31 (18%) pregnant women were primary school graduates (literates were included in this class for the regular distribution and relationship research to yield results). It is seen that 15.1% have a university or higher education level. According to BAI results, 50 (29.1%) of 172 pregnant women had mild anxiety, 40 (23.3%) had moderate anxiety, 14 (8.1%) had severe anxiety, while the number of those who did not show any symptoms was 68 (39.5%) (Table 1).

According to BAI, the most common findings in patients are irritability (1.0412) and a feeling that bad things will happen (1.0765). Although these two variables have higher scores than the other variables, they are within the limits of mild anxiety (Table 2).

Two groups were evaluated together to determine whether the previous delivery method affected the current pregnancy and birth anxiety. In examining whether there is a significant relationship between the BAI scores of both groups, no statistically significant relationship was found in the relationship studies performed with the T-Test ($p>0.05$). No significant correlation was found between CS or VD at the previous delivery and BAI scores during the current pregnancy and delivery ($p>0.05$) (Table 3).

DISCUSSION

It is thought that the anxiety experienced during pregnancy may be effective in the selection of the next delivery method. To understand this, the effects of anxiety in pregnant women undergoing VD and CS should be measured and compared, and the effect of this variable on the choice of delivery method in the next pregnancy should be known. This study was done to understand this. When the literature is examined, it has been found that anxiety increases during pregnancy periods in different studies (3,4).

Our study was completely based on pregnant women, and the pre-pregnancy anxiety status of the patients is unknown. In our study, according to the results of BAI, 50 (29.1%) of 172 pregnant women had mild anxiety, 40 (23.3%) had moderate anxiety, 14 (8.1%) had severe anxiety, while number of those who did not show any symptoms was 68 (%). 39.5). According to BAI, the most common findings in patients are irritability (1.0412) and a feeling that bad things will happen (1.0765). Shahla M. Hosseini et al., in their study in 2009, examined whether there is a relationship between the anxiety of the woman and the birth outcomes in each trimester of pregnancy. They found that the anxiety experienced in the first and second trimesters did not have a significant effect on pregnancy outcomes, but the anxiety experienced in the third trimester shortened the pregnancy period, but this shortness was not due to the lack of intrauterine development, but only because the birth occurred before the expected time (5).

Since our study only aimed to investigate the effect of the previous delivery method on the current pregnancy, the patients were not followed up for a long time in terms of obstetric complications. Rowlands IJ. et al., in their study conducted in 2012, found that the type of birth did not affect the psychological and physical structure of the woman. For this reason, they recommend CS, especially for pregnant women who have health problems that prevent vaginal delivery or who have a negative experience of VD in previous delivery (6).

In our study, it was found that the previous delivery method did not have any effect on current pregnancy and birth anxiety. We think that the bad experiences in the previous birth affect anxiety and delivery style, especially during VD. We think that there is no increase in anxiety levels in patients who have delivered in their usual course. We believe that the level of anxiety in pregnant women is due to different social and medical reasons. In a study by Pang et al. in 2007, they examined the effects of the first mode of delivery on the choice of the next mode of delivery. As a result of the study, they found that 24% of the women who applied to the hospital with a VD preference changed their minds (7).

In our study, two different groups were included and the patients were categorized according to the previous delivery type. In a study conducted in England in 2012, it was found that instrumental births (including forceps and vacuum-assisted and episiotomy birth) increased depression, mothers were not satisfied with the birth at all, and they could not control their urine and stool in the long term (6). Anxiety experienced during pregnancy is likely to be related to complications during delivery rather than to the previous delivery. A study conducted in Nigeria in 2004 stated that social/religious concerns were very effective in not choosing CS, and therefore anxiety symptoms during pregnancy were quite high (40%) (8).

Although there are researchers who found the anxiety level to be lower during pregnancy using different criteria and tools, the results of this study were higher than the previous ones when the averages of general anxiety state and psychological anxiety disorder were examined (9,10). In addition, since mild anxiety is accepted as a necessity of life and a physiological condition that is needed, according to the results of this study, when the number of those who have no symptoms of anxiety and the number of those with mild anxiety are taken together, it turns out that 118 (68.6%) of them are healthy. In this case, this study suggests that 31% of pregnant women have an anxiety problem to the extent that a psychiatrist is needed. According to our study, the previous delivery type is not important for anxiety experienced in the current pregnancy.

CONCLUSION

As a result, it has been observed that the previous type of delivery VD or CS does not affect the anxiety experienced during the current pregnancy and delivery.

LİMİTATİONS OF THE STUDY

In our study, only the effect of the previous delivery method on anxiety in current pregnancy and birth was investigated. Anxiety in pregnancy is a broad subject due to multifactorial causes. It is also likely that better results will be obtained in larger populations. Our study is study examines only the relationship between the mode of delivery and anxiety in a small group. A larger population and prospective studies are needed.

ACKNOWLEDGMENT

This study was not presented as a paper/poster in any congress or symposium.

This study was created by rearranging the author Serkan Yücel Yılancı's Thesis for Specialization in Medicine, titled "Comparison of the effects of vaginal and cesarean delivery on the level of anxiety in the next pregnancy".

ETHİCAL DECLARATİON

Ethical approval was obtained from the Ethics Committee of Aydın Adnan Menderes University Faculty of Medicine, with the letter dated 2014 and numbered 2014/1271, and the Declaration of Helsinki criteria were taken into consideration.

REFERENCES

I. Robertson E, Grace S, Wallington T, Stewart DE. Antenatal risk factors for postpartum depression: a synthesis of recent literature. Gen Hosp Psychiatry.2004;26(4):289-295. https://doi.org/10.1016/j.genhosppsych.2004.02.006
II. Meijer JL, Bockting CL, Beijers C, et al. PRegnancy Outcomes after a Maternity Intervention for Stressful EmotionS (PROMISES): study protocol for a randomised controlled trial. Trials. 2011;12:157. Published 2011 Jun 20. https://doi.org/10.1186/1745-6215-12-157
III. Rini CK, Dunkel-Schetter C, Wadhwa PD, Sandman CA. Psychological adaptation and birth outcomes: the role of personal resources, stress, and sociocultural context in pregnancy. Health Psychol. 1999;18(4):333-345. https://doi.org/10.1037//0278-6133.18.4.333
IV. Sandman CA, Wadhwa PD, Chicz-DeMet A, Dunkel-Schetter C, Porto M. Maternal stress, HPA activity, and fetal/infant outcome. Ann N Y Acad Sci.1997;814:266-275. https://doi.org/10.1111/j.1749-6632.1997.tb46162.x
V. Hosseini SM, Biglan MW, Larkby C, Brooks MM, Gorin MB, Day NL. Trait anxiety in pregnant women predicts offspring birth outcomes. Paediatr Perinat Epidemiol. 2009;23(6):557-566. https://doi.org/10.1111/j.1365-3016.2009.01065.x
VI. Rowlands IJ, Redshaw M. Mode of birth and women's psychological and physical wellbeing in the postnatal period. BMC Pregnancy Childbirth. 2012;12:138. Published 2012 Nov 28. https://doi.org/10.1186/1471-2393-12-138
VII. Pang MW, Leung TN, Lau TK, Hang Chung TK. Impact of first childbirth on changes in women's

preference for mode of delivery: follow-up of a longitudinal observational study. Birth. 2008;35(2):121-128. https://doi.org/10.1111/j.1523-536X.2008.00225.x

VIII. Ukpong DI, Owolabi AT. Psychiatric morbidity associated with caesarean section: a study from Wesley Guild Hospital, Ilesa, Nigeria. J Obstet Gynaecol.2004;24(8):891-894. https://doi.org/10.1080/01443610400018726

IX. Heron J, O'Connor TG, Evans J, Golding J, Glover V; ALSPAC Study Team. The course of anxiety and depression through pregnancy and the postpartum in a community sample. J Affect Disord.2004;80(1):65-73. https://doi.org/10.1016/j.jad.2003.08.004

X. Eberhard-Gran M, Tambs K, Opjordsmoen S, Skrondal A, Eskild A. A comparison of anxiety and depressive symptomatology in postpartum and non-postpartum mothers. Soc Psychiatry Psychiatr Epidemiol. 2003;38(10):551-556. https://doi.org/10.1007/s00127-003-0679-3

TABLES

Table 1. Beck anxiety interpretation table of inventory results

Classification		Number of patients (n)	(%) Percent
Anxiety severity	Light	50	29.1
	Middle	40	23.3
	Severe	14	8.1
	No symptoms	68	39.5
	Total	172	100

Table 2. Statistical data of Beck anxiety inventory (BAI) variables

	BAI mean ± sd (median)
Numbness or tingling	0.6176± 0.79995
Feeling hot	0.9824± 0.98193
Wobbliness in legs	0.7471± 0.90405
Unable to relax	0.6059± 0.85171
Fear of worst happening	**1.0765± 1.19666 *****
Dizzy or lightheaded	0.5765± 0.79758
Heart pounding/racing	0.5294± 0.85087
Unsteady	0.3059± 0.68843
Terrified or afraid	0.4353± 0.81331
Nervous	**1.0412± 0.98122 *****
Feeling of choking	0.6235± 0.96662
Hands trembling	0.2941± 0.61198
Shaky / unsteady	0.3235± 0.60180
Fear of losing control	0.3235± 0.71834
Difficulty in breathing	0.5824± 0.82615
Fear of dying	0.5529± 0.89715
Scared	0.5882± 0.81108
Indigestion	0.8176± 0.94006
Faint / lightheaded	0.2000± 0.48161
Face flushed	0.3294± 0.55231
Hot/cold sweats	0.8294± 0.87047

Table 3. Birth type and beck anxiety inventory scores relationship

Type of birth	Number (n)	BAI Mean ± sd (median)	T-test value	p
Vaginal delivery	86	13.4651± 0.99337	**1.799**	**0.074**
Cesarean delivery	86	11.0581± 0.89677		
BAI: Beck anxiety inventory				