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The Effect Of Episiotomy On Sexual Functions In Primiparous Women: A Cross-Sectional Survey Study

Research Article

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Abstract

Objective: The aim of the study was to investigate and compare sexual dysfunction in the postpartum 6-10 weeks in primiparous pregnant women who underwent mediolateral episiotomy and those who did not undergo episiotomy during normal delivery.

Materials And Methods: This retrospective cross-sectional questionnaire study was conducted in Ankara City Hospital between September 2019 and May 2021. Sexually active and healthy pregnant women who were between the ages of 18-35, pregnant between 37-42 weeks, those with singleton pregnancies, low-risk pregnancies, birth weight within normal limits according to the gestational week were included in the study. Nulliparous women who had the same characteristics were also included in the control group. FSFI (Female Sexual Function Index) questionnaire was applied to all patients for sexual function evaluation. SPSS 11.5 program was used in the analysis of the data.

Results: In the control group 11.5% of the patients had sexual dysfunction, this rate was found to be 26.2% in the group without episiotomy and 37.7% in the group with episiotomy.

Conclusion: Women who gave birth with episiotomy had a higher rate of sexual dysfunction in the postpartum 6-10 weeks than women who gave birth without episiotomy.

Keywords: Episiotomy; Sexual Dysfunction; Female Sexual Function Index.

Introduction

Episiotomy was widely applied in the world until the first half of the 19th century and its use gradually increased. In the following years, it was applied in almost 63% of all births and almost all nulliparous babies [1]. In this period, it was considered that repair of episiotomy was easy and application of episiotomy had a reducing effect on pelvic floor lacerations and prevented pelvic organ prolapse, sexual dysfunction, and urinary/fecal incontinence in the long term. It was believed that episiotomy protected the fetus from pathologies e.g. asphyxia, cranial trauma, cerebral hemorrhage, and mental retardation. However, there were increasing reports that episiotomy did not provide these benefits in the second half of the 20th century.

The routine use of episiotomy is no longer recommended because of the lack of objective evidence-based data showing the benefits of routine use [2]. In a meta-analysis involving 12 studies comparing the use of restrictive episiotomy with routine use in women expecting spontaneous vaginal delivery, restrictive episiotomy resulted in up to a 30 % reduction in women who experienced severe perineal or vaginal trauma. In this meta-analysis, no significant differences were reported between the groups in terms of postpartum 3rd day perineal pain, prolonged (six months or more) dyspareunia, genital prolapse, or urinary incontinence [2].

Sexual problems are reported by about 40 % of women worldwide, and about 12 % of these women (one in eight women) actually have a sexual problem [3-7]. Female sexual dysfunction takes different forms e.g. lack of sexual desire, impaired arousal, inability to reach orgasm or pain in sexual activity. Sexual dysfunction may be a problem from the beginning of the sexual activity or may be acquired later in life after a period of normal sexual function. The etiology of sexual dysfunction is often multifactorial and can involve depression or anxiety, relationship conflicts,

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fatigue, stress, lack of privacy, problems with previous physical or sexual abuse, medications, or physical and psychological problems that make sexual activity difficult.

Female sexual dysfunction is diagnosed by taking a medical and sexual history and determining the diagnostic criteria. There are many validated questionnaires used in the evaluation of female sexual function. Female Sexual Function Index (FSFI), is one of the questionnaires developed to measure the quality of sexual life and it was used in our study.

The aim of the study was to investigate and compare sexual dysfunction in the postpartum 6-10 weeks in primiparous pregnant women who underwent mediolateral episiotomy and those who did not undergo episiotomy during normal delivery.

Material And Method

This retrospective cross-sectional questionnaire study was conducted in Ankara City Hospital between September 2019 and May 2021, after the approval from Ankara City Hospital Clinical Research Ethics Committee No. 2 was obtained (date: 16.06.2021, decision number: E2-21-615). The study was conducted on pregnant women who had a mediolateral episiotomy or without episiotomy in the delivery room of the Gynecology and Obstetrics Hospital. Informed consent was obtained from all pregnant women who participated in the study. Sexually active and healthy pregnant women who were between the ages of 18-35, pregnant between 37-42 weeks, those with singleton pregnancies, low-risk pregnancies, birth weight within normal limits according to the gestational week were included in the study. Nulliparous women who had the same characteristics were also included in the control group.

Pregnant women who had any chronic systemic disease, multiple pregnancies, fetal or maternal obstetric complications, pregnant women who had genital trauma or genital surgery for any reason, and patients who did not have sexual intercourse at least three times a week were excluded from the study. Also, patients who did not want to participate in the questionnaire were excluded from the study.

In this two-stage study, the files of the cases were scanned from the archives and their demographic characteristics, gestational week calculated according to the last menstrual date, birth weight, age, weight, body mass index (BMI), smoking, alcohol use and the participation in the childbirth education class were recorded in the first stage.

In the second phase, the Female Sexual Function Index (FSFI), which is one of the questionnaires developed to measure the quality of sexual life, was employed. The patients who met the inclusion criteria had the FSFI. In the second stage, the patients who met the inclusion criteria had the FSFI form filled by the same researcher, who was a gynecology and obstetrician by telephone or face-to-face interviews, after obtaining their informed consent. The sub-groups of the FSFI were; desire, arousal, lubrication, orgasm, satisfaction, and pain. Each question is scored between 0 and 5. To be able to argue that there is sexual dysfunction, cut-off values are calculated for the total score of the scale and the total score of the sub-groups. The 1st and 2nd questions on the scale made up the desire sub-group; the 3rd, 4th, 5th, and 6th questions, the arousal sub-group; the 7th, 8th, 9th, and 10th questions, the lubrication sub-group, the 11th, 12th, and 13th questions, the orgasm sub-group , the 14th, 15th, and 16th questions made up the satisfaction sub-group, and the 17th, 18th, and 19th questions constituted the pain sub-group. The total score is obtained by summing the scores of these six sub-groups, and the score of the scale is calculated by multiplying the total score of each sub-group with its factor coefficient. The total score is calculated by multiplying the desire subscale score by 0.6, the arousal and lubrication subscale scores by 0.3, and the orgasm, satisfaction, and pain subscale scores by 0.4. The FSFI> 26.5 is interpreted as no sexual dysfunction, and FSFI <26.5 is interpreted as sexual dysfunction. The maximum score is 36, and the minimum score is 2 on the scale.

The SPSS 11.5 program was employed in the analysis of the data. Mean ± standard deviation and median (minimum-maximum) were employed as descriptors for quantitative variables, and the number of patients (percentage) was used for qualitative variables. Whether there were differences between the categories of the qualitative variables with two categories in terms of quantitative variables was examined with the Student t-test if the normal distribution assumptions were met, and with the Mann-Whitney U test if they were not. The Kruskal Wallis H test was employed to determine whether there were differences between the categories of the qualitative variable with more than two categories in terms of the quantitative variable because the assumptions of normal distribution were not met. Paired groups causing significant differences between the groups were examined using the Mann Whitney U test with Bonferroni correction. The Chi-Square and Fisher-Exact tests were employed to examine the relations between two qualitative variables. The statistical significance level was taken as 0.05.

Results

Demographic data of the patients are shown in Table 1.

It was examined whether there was a difference between the three groups in terms of demographic data and a significant difference was found for age, BMI and smoking variables ($p<0.001$, $p<0.001$ and $p=0.017$), respectively (Table 2).

In Table 3, the comparisons between the groups with and without episiotomy were examined in terms of variables, and no significant difference was found between the groups.

It was examined whether there was a difference between the three groups in terms of scale scores, and no significant difference was found only for the satisfaction subscale ($p=0.149$). (Table 4).

The mean desire scale score was 4.69 ± 0.68 in the control group, 4.52 ± 1.11 in the group without episiotomy, and 3.70 ± 1.39 in the group with episiotomy. When the paired groups that caused a significant difference between the three groups were examined, the differences between the control-episiotomy and without episiotomy-episiotomy groups were significant ($p<0.001$ and $p=0.001$).

The mean arousal scale score was found to be 5.10 ± 0.53 in

Table 1. Demographic data of cases.

Group, n (%)	Control	61 (33.3)
	Without Episiotomy	61 (33.3)
	Episiotomy	61 (33.3)
Age	Mean ± SD	26.87 ± 4.24
	Median (Min-Max)	26.00 (19.00-35.00)
Body Mass Index (BMI)	Mean ± SD	22.92 ± 2.81
	Median (Min-Max)	22.91 (18.02-32.87)
Smoking, n (%)	No	157 (85.8)
	Yes	26 (14.2)
Alcohol, n (%)	No	180 (98.4)
	Yes	3 (1.6)
Education, n (%)	Primary School	29 (15.8)
	Secondary School	25 (13.7)
	High School	94 (51.4)
	University	35 (19.1)
Gestational age	Mean ± SD	39.18 ± 1.23
	Median (Min-Max)	39.00 (36.00-42.00)
Birth Weight (gr)	Mean ± SD	3287.95±370.69
	Median (Min-Max)	3267.50 (2510.00-4150.00)
Childbirth education class,n (%)	No	118 (96.7)
	Yes	4 (3.3)

Mean; SD: Standard Deviation, Min: Minimum, Max: Maximum

Table 2. Comparison of demographic data between groups.

		Control	Without episiotomy	Episiotomy	p değeri
Age	Mean ± SD	28.77 ± 3.88	25.62 ± 4.16	26.23 ± 4.05	<0.001[b]
	Median	28.00	25.00	26.00	
	(Min-Max)	(19.00-35.00)	(19.00-34.00)	(20.00-35.00)	
BMI	Mean ± SD	21.09 ± 2.28	23.69 ± 3.01	23.99 ± 2.11	<0.001[a]
	Median	21.17	23.59	24.39	
	(Min-Max)	(18.02-30.06)	(18.61-32.87)	(19.43-30.12)	
Smoking, n(%)	No	47 (77.0)	52 (85.2)	58 (95.1)	0.017[c]
	Yes	14 (23.0)	9 (14.8)	3 (4.9)	
Alcohol, n(%)	No	58 (95.1)	61 (100.0)	61 (100.0)	0.107[d]
	Yes	3 (4.9)	0 (0.0)	0 (0.0)	
Education, n(%)	Primary School	15 (24.6)	6 (9.8)	8 (13.1)	0.217[c]
	Secondary School	5 (8.2)	8 (13.1)	12 (19.7)	
	High School	29 (47.5)	35 (57.4)	30 (49.2)	
	University	12 (19.7)	12 (19.7)	11 (18.0)	

Mean; SD: Standard Deviation, Min: Minimum, Max: Maximum,
a: One Way ANOVA test, b: Kruskal Wallis H testi ,C: Chi-Square test, d: Fisher's Exact test

the control group, 4.43 ± 1.06 in the group without episiotomy, and 3.70 ± 1.39 in the group with episiotomy. The differences between the control-without episiotomy and control-episiotomy groups were significant (p=0.001 and p<0.001).

Although the mean lubrication score was found to be highest in the group without episiotomy, it was found to be the lowest in the group with episiotomy. The differences between the control-episiotomy and without episiotomy-episiotomy groups were found to be significant (p=0.043 and p<0.001).

Similarly, the mean orgasm score was the highest in the group without episiotomy, and it was the lowest in the group with episiotomy. In terms of orgasm scores, only the difference between

Table 3. Comparisons between groups with and without episiotomy.

		Without Episiotomy	Episiotomy	p-value
Gestational age	Mean±SD	39.11 ± 1.38	39.25 ± 1.06	0.696[b]
	Median	39.00	39.00	
	(Min-Max)	(36.00-42.00)	(37.00-42.00)	
Birth Weight	Mean ± SD	3240.98 ± 352.20	3334.92 ± 385.47	0.163[a]
	Median	3240.00	3275.00	
	(Min-Max)	(2510.00-3860.00)	(2635.00-4150.00)	
Childbirth education class, n(%)	No	60 (98.4)	58 (95.1)	0.619[d]
	Yes	1 (1.6)	3 (4.9)	

Mean; SD: Standard Deviation, Min: Minimum, Max: Maximum,
a: Student t-test, b: Mann-Whitney U test, C: Chi-Square test, d: Fisher's Exact test

Table 4. Comparison of scale scores between groups.

		Control	Without Episiotomy	Episiotomy	p-value
Desire	Mean ± SD	4.69 ± 0.68	4.52 ± 1.11	3.70 ± 1.39	<0.001[a]
	Median	4.80	4.80	3.60	
	(Min-Max)	(3.60-6.00)	(1.80-6.00)	(1.20-6.00)	
Arousal	Mean ± SD	5.10 ± 0.53	4.43 ± 1.06	4.49 ± 0.89	<0.001[a]
	Median	5.10	4.80	4.50	
	(Min-Max)	(3.60-6.00)	(2.10-6.00)	(2.70-6.00)	
Lubrication	Mean ± SD	5.04 ± 0.42	5.26 ± 0.66	4.71 ± 0.64	<0.001[a]
	Median	5.10	5.40	4.80	
	(Min-Max)	(3.90-6.00)	(3.90-6.00)	(3.30-5.80)	
Orgasm	Mean ± SD	4.94 ± 0.48	5.12 ± 0.74	4.58 ± 0.73	<0.001[a]
	Median	4.80	5.20	4.80	
	(Min-Max)	(4.00-6.00)	(2.00-6.00)	(3.00-6.00)	
Satisfaction	Mean ± SD	4.83 ± 0.55	4.87 ± 0.94	5.04 ± 0.64	0.149[a]
	Median	4.80	5.20	5.20	
	(Min-Max)	(3.60-6.00)	(3.20-6.00)	(3.60-6.00)	
Pain	Mean ± SD	5.13 ± 0.46	4.69 ± 0.83	5.00 ± 0.79	0.007[a]
	Median	5.20	4.80	4.80	
	(Min-Max)	(4.00-6.00)	(3.20-6.00)	(3.20-6.00)	
FSFI. n(%)	No Sexual Dysfunction	54 (88.5)	45 (73.8)	38 (62.3)	0.004[b]
	Sexual Dysfunction	7 (11.5)	16 (26.2)	23 (37.7)	

Mean; SD: Standard Deviation, Min: Minimum, Max: Maximum,
a: Student t-test, b: Mann-Whitney U test, C: Chi-Square test, d: Fisher's Exact test

the groups without episiotomy and episiotomy was found to be significant (p<0.001).

The mean pain scale score was found to be 5.13±0.46 in the control group, 4.69 ± 0.83 in the group without episiotomy, and 5.00 ± 0.79 in the group with episiotomy. The difference between the control and without-episiotomy groups was found to be significant (p=0.007). In the control group 11.5% of the patients had sexual dysfunction, this rate was found to be 26.2% in the group without episiotomy and 37.7% in the group with episiotomy (Table 4).

Discussion

Postpartum sexual function can be affected by various factors (e.g. hormonal, psychological, social, anatomical factors), which may cause sexual dysfunction in the postpartum period [8, 9]. According to previous studies, 20-60% of women experience sexual dysfunction in the first 6 months after delivery [10-14]. The physical and psychological factors e.g. satisfaction, depression, and delivery type were investigated concerning postpartum sexual dysfunction. However, the results on the effects of these factors on the postpartum sexual function of women are mostly controversial.

Female sexual function is a vital part of life at any age and is affected by many factors [15]. Especially pregnancy and childbirth bring with them biological, psychological, and social changes, which can affect sexual functions. There is a significant worsening of all sexual areas (e.g. dyspareunia, lack of vaginal lubrication, difficulty reaching orgasm, vaginal bleeding or irritation after intercourse, and loss of sexual desire) in the postpartum period.

Studies show that the prevalence of sexual dysfunction ranges from 41% to 83% in the 2-3 months after birth. In a study published in 2000 comparing the prenatal (3rd trimester) and 6-month postpartum conditions of 484 women, Barrett et al. found that pain, lack of vaginal lubrication, and loss of sexual desire increased significantly in the first 3 months after birth compared to the pregnancy period. They also reported that although these problems decreased 6 months after birth, they did not reach the level of prenatal well-being [16].

A meta-analysis of Chinese primiparous women showed that mode of delivery did not affect short and long term postpartum sexual functions [17]. It was reported in a study that compared restrictive approach and routine episiotomy, that 37% of women who underwent restrictive approach and 27% of women who underwent routine episiotomy resumed sexual intercourse one month after delivery [18].

In a prospective study comparing vaginal delivery with and without episiotomy in 243 cases, no difference was found between the groups in sexual function at 1, 2, and 6 weeks postpartum [19]. A limited number of studies comparing the results of the restrictive approach and routine episiotomy reported that the frequency of dyspareunia at the postpartum 3rd and 4th years did not differ at significant levels between the groups [20, 21].

A meta-analysis that evaluated 12 studies and 6177 cases concluded that there were no differences between the presence or absence of episiotomy in women who reported painful sexual intercourse 6 months or more after birth.[2]

In another study, 158 primiparous cases that gave birth through mediolateral episiotomy were evaluated. 135 women (85.4%) resumed sexual activity after 3 months. The FSFI scale was employed in the study and it was found that 55 (40.7%) of these women had FSFI scores <26.55 and experienced symptoms of sexual dysfunction. Desire disorders 68.9% and orgasm disorders 67.4% were the two most common problems. It was also reported that pain during intercourse was a common problem (58.5%) and 59.3% of the participants were not satisfied with their sexual life. [8].

In a cohort study by De Souza et al., postpartum sexual functions were evaluated in the first 7-19 weeks, 6 months, and 12 months. In this cohort, 54% of the women had a normal vaginal delivery, 21% had an instrumental delivery, and 25% had a cesarean section. In this study, no difference was found in total FSFI or subgroup scores by mode of delivery between the prenatal and the 12th month postnatal assessment [22].

In the present study, significant differences were detected between women with and without episiotomy in terms of sexual desire. These results are consistent with the results of previous studies on this subject [16, 23]. Also, significant differences were detected between the control group and the episiotomy group in terms of sexual desire. The literature reports that postpartum sexual desire is negatively affected [24]. However, most studies do not compare groups of women with and without episiotomy, there are studies comparing groups of primiparous women with mediolateral episiotomy and women with cesarean section usually [25].

The mean postpartum orgasm score was found to be at the highest level in the group without episiotomy. This result is in line with the results of several studies that mention the ability to reach orgasm rapidly after birth. These studies also reported that most women regained their ability to orgasm six weeks after birth. [18, 25]. A significant difference was detected between the groups of women with and without episiotomy in terms of the mean postpartum orgasm score in our study.

In this study, the mean postpartum orgasm score of the without episiotomy group was found to be higher than the control group. Studies are reporting that there is an increased vascularization of the labia minora and pelvic structures because of some hormonal changes caused by childbirth, and as a result, orgasm is more pronounced, and even many women experience their first orgasm after their first pregnancy. Also, 25% of women were found to be more satisfied with their sexual life after birth [26, 27].

There were a lot of studies on pain during sexual intercourse after birth. As a result of the present study, significant differences were found between the control group and the group without episiotomy. In a previous study, it was found that women with intact perineum had less pain than others [28]. In a study by Hartman et al., it was found that the pain during sexual intercourse in women who underwent episiotomy during childbirth was more than in women who had a cesarean section or did not have perineal damage [29]. However, some other studies suggest that perineal pain was not affected by episiotomy [30].

In the present study, the mean satisfaction score was close to each other in all three groups and no significant differences were detected. According to the data obtained from the study of Klein et al., women who underwent episiotomy were affected negatively in terms of sexual satisfaction [31]. It was found in another study that the satisfaction levels of women with intact perineum were higher [28].

Conclusion

As a result of the our study that investigated the effects of episiotomy, it was found that primiparous women who underwent episiotomy had lower sexual functions at 6-10 weeks compared to those without episiotomy. For this reason, we believe that restrictive episiotomy is a more appropriate approach instead of routine right mediolateral episiotomy in normal deliveries.

Although the power of the study increased with the results of a single-center in our study, it still had limitations because it had a retrospective design. Prospective and more comprehensive studies are needed in this regard.

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