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Research Article

A comparison Sexual Function between women with and without Elective Colpoperineorrhaphy

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ABSTRACT

Introduction: One of the effective factors on the female sexual activity is surgeries. Even if female surgeries are small and non significant but they can be effective on patient's mood and her thought of herself. With Regards to FSD and spread of elective colpoperineorrhaphy, The purpose of the study was to explore the prevalence of sexual problems in post- colpoperineorrhaphy.

Materials and methods: This comparative descriptive-analytical study was conducted on the women who underwent colpoperineorrhaphy, and who did not undergo the surgery referred to Peymanieh hospital from March 2015 to February 2016. The participants were 74 of whom 37 patients underwent colpoperineorrhaphy, and 37 did not undergo surgery. Information gathering tool and method was a two parts questionnaire: 1) demographic variables 2) FSFI questionnaire.

Results: The The average total FSFI Scorein surgical group was 20/08±7/33, and control group was 23/12±5/05 (According to our study, 87/3% of women who underwent the surgery had a sexual dysfunction. The most of the dysfunction were related to pain during intercourse. The results of this study show that 52/2% of women reported that they have very often pain during intercourse. Comparing the groups, desire, Arousal, ,orgasm, , satisfaction was not significant change. but lubrication ,pain was significant.

Conclusion: Six months after colpoperineorrhaphy,it was found that the studied patients' sexual problems were increased as compared to the control group. This is indicates that the elective colpoperineorrhaphy doesn't have any positive effects on the female sexual functions. Therefore, it is recommended that the people and authorities in charge of health problems should pay more attention to female sexual problems, and a ward can be created at the health centers for sexual counseling before colpoperineorrhaphy.

Keywords: Sexual Function, Colpoperineorrhaphy, surgery

INTRODUCTION:

Sexual activity and satisfaction are one of the most important dimensions of women's lives (1). Marital satisfaction is one of the most important indicators of satisfaction with life (2). About 60% -80% of women have various forms of sexual dysfunction that directly and indirectly affect many aspects of their lives (3). Some people have organic diseases that affect their sexual activity and satisfaction. Non-physical factors, such as barriers related to social-religious beliefs, sexual trauma and bad sex experiences affect sexual function. Childbirth, social characteristics of a person, lifestyle and marital characteristics are also factors contributing to sexual satisfaction (4).

One of the physical problems is the looseness of pelvic floor muscle. (5). One third of women with loose pelvic floor muscle suffer from this problem and often they are upset because of loose vagina and lack of sexual satisfaction. And

most cases are ashamed of this physical problem. Although the degree of dissatisfaction depends on the intensity of vaginal looseness, most women themselves often ask for prineural surgery. (6) Research has shown that weakness and elongation of the ptoobaccosis muscle is an important factor in women's sexual response, because the senses that come from the muscles around the vagina are an important source of pleasure and satisfaction with the vaginal erotic senses. If these muscles are loose and aprophyed, it may disturb women's orgasms and their satisfaction. Strengthening these muscles or removing the looseness can generate more arousal in women and most likely the experience of orgasm in women is greater and they feel more pleasure (7). The problem of loose pelvic muscle a common problem in our country, because on the one hand, most of the treatment centers provide no adequate training during pregnancy and childbirth to protect the pelvic floor muscles And, on the other hand, the majority of women in our country are Asian and Asian. And frequent childbirths and inappropriate spacing between pregnancies, which are a major problem in controlling the population in the country, establish a good basis for the development of pelvic organs problems (8). The most common surgical procedure performed by physicians for the looseness of pelvic organ muscle is clopuperinurphy, which accounts for 35.2% of all pelvic operations. The National Center for Health of the United States reports the incidence of KelPurphy surgery as many as 400,000 per year (7 , 8)

Considering the lack of sexual satisfaction in women and the prevalence of selective colpoperinurphy and controversies about the effect of this surgery on women's sexual satisfaction, this study was conducted with the aim of investigating women’s sexual function after colpoperineorrhaphy.

MATERIALS AND METHODS:

The research method in this study is Descriptive-comparative study. The statistical population consists of married women with stable sexual activity. This study was performed on women with or without colpoperineorrhaphy referring to Peymaniyeh medical center in Jahrom city. In this study, 74 patients were evaluated. Of this number, 37 patients had not undergone colpoperineorrhaphy while 37 patients had. The study was approved by the Ethics Committee of the Jahrom University of Medical Sciences (JUMS.REC.1390.036).

Patients with a history of other surgical procedures, such as breast, hysterectomy, re-administration of colpoperineorrhaphy and those suffering from known physical and psychological illnesses (diabetes, rheumatoid arthritis, depression, hypertension) and using drugs that affect sexual function were excluded from the study. As a result, 37 people entered the study as the case group, according to the inclusion criteria. And after sufficient explanation, they interviewed anyone with whom they were willing to cooperate. Those who referred to the clinic for their genital diseases were included in the study as controls.

The used tool was the Female Sexual Functional Questionnaire (FSFI), which included 19 questions to examine individuals in 6 areas: libido, sexual stimulation, slipperiness or moisture, orgasm, sexual satisfaction, pain. Scoring the questions is on the basis of the scoring system of zero/one to five, and by summing the scores of questions in each field, the scoring factor in the same field, the score of that field is obtained. The domain of libido with the two questions of 1 and 2, stimulation with the sum of questions 2, 4, 5 and 6, lubrication with the sum of questions 7 and 8, 9 and 10, orgasms by questions 11, 12 and 13, the field of satisfaction with questions 14, 15 and 16, and the field of pain by questions 17, 18 and 19 are covered. For domains with 2, 3 and 4 questions, factors 0.6, 0.4 and 0.3 will be used, respectively. Finally, the score of each field is obtained from the sum of questions in that field multiplied by its factor coefficient. Each field has a minimum of (1/8 or 2/1-0) and a maximum of 6. Finally, the overall score of sexual performance is obtained from all the domains and its scale ranges from 2 to 36. This questionnaire is translated into the mother tongue of its population and then is made valid and reliable in the same language. As in

Swedish and Korean research, it has been translated into the same language and then use. The questionnaire is of standardized general type whose validity and reliability were confirmed by a research carried out by Rosen and his colleagues in 2000 and also a study by Mohammadi conducted in Iran in 2004 at the University of ShahidBeheshti. The coefficient of reliability or total reliability of the test, with both ballot and re-test methods, was reported 78% and 75%, respectively. For sub-tests, with the ballot method it was between 63% and 75%, and with a retest method it was reported between 70% and 81% (9 and 10). The data of this study obtained from descriptive statistical methods, T-test and correlation tests were used to investigate the relationship between sexual function and its components and were analyzed using SPSS 18 statistical software. In this study, $p < 0.05$ was considered significant.

RESULTS:

In this study, 46 people were in the control group and 99 people were in the case group. The two groups were similar in terms of demographic and population characteristics. (Table 1) Both groups consisted of women from 20 to 46 years old. The mean age of these women was 31.94 ± 6.68. The majority of women (49.9%) had an educational level as much as elementary school or guidance school. 84.1% were urban and 15.9% were rural. The majority of them, 84.8%, were housewives.

The results showed that there was a statistically significant difference between the mean scores of total sexual function among the women in control and case groups ($P < 0.05$). The average scores in the case group were 20.08 ± 7.33 and in the control group were 23.12 ± 5.5. Also, with respect to the mean scores of the components of sexual function (sexual desire, sexual stimulation, lubrication, orgasm, sexual satisfaction, pain) between the two groups, all these components except for the desire decreased in the case group, compared to the control group (Table 2).

To evaluate the relationship between sexual function and its components, Pearson correlation coefficient (between +1 and -1) was used (Table 3).

In this study, sexual dysfunction was reported 87.3%, which was higher compared with women who had not undergone this surgery. The most common disorder was related to pain during intercourse. 52.2% of women reported that they often experienced pain during intercourse, 19.6% never had lubrication during sexual intercourse, 17.4% never experienced orgasms, 13% of women had problems with arousal.

Table 1: The demographics of women in the control and case groups

Characteristics	Case Group n=37	Control Group n=37	*P value
Woman's age	31.67±6.22	31.41±6.77	0.23
Husband’s age	37.02±5.85	37.05±7.61	0.37
Duration of marriage	12.76±5.72	12.24±7.52	0.05
Age difference between the couples	5.91±2.54	5.63±3.66	0.06
Marital age	19.13±3.72	19.25±4.35	0.3

Table 2: A comparison between the means of the groups' scores in the various domains of sexual function

Sexual function domains	Control group n=37	Case Group n=37	P value
	Mean±SD	Mean±SD	
Libido	3.71±1.41	3.37±1.10	0.11
Sexual arousal	3.39 ± 1.53	3.51 ± 1.1	0.57
Lubrication	3.11 ±1.57	4.05±1.27	0.000
Orgasm	3.43±1.60	5.75±13.66	0.25
Sexual satisfaction	4.20±1.62	5.55±9.57	0.3
Pain	2.22±0.75	3.98±1.15	0.000
Total sexual function	20.08 ±7.3	23.12±5.05	0.004

Table 3: The correlation between sexual function domains in women

domains	Libido	arousal	Lubrication	Orgasm	satisfaction	Pain	Total sexual function
Libido	1						
arousal	0.86	1					
Lubrication	0.54	0.69	1				
Orgasm	0.67	0.84	0.88	1			
satisfaction	0.66	0.83	0.82	0.88	1		
Pain	0.28	0.15	0.48	0.40	0.31	1	
Total sexual function	0.81	0.91	0.89	0.95	0.92	0.45	1

DISCUSSION:

The results of this study showed that there was a significant difference between the mean of sexual performance scores of women in the case and control groups. This difference indicates that the colpoperineorrhaphy surgery decreases the female sexual function. This surgery, due to its effect on the anatomy of the nerves and vessels, causes changes in sexual function (11). Lyman and Zimeron at the Texas Hospital of the United States evaluated the results of 3 months after colpoperineorrhaphy surgery. 20% of women reported having sexual dysfunction, and 20% reported dyspareunia. (18). Also, in a retrospective study by Meita et al., Entitled "Sexual satisfaction after surgery for urinary incontinence," they found that 72% of patients did not express a change in sexual function, and 14% of patients complained of worsening their sexual function. Loss of sexual desire and dyspareunia were the main complaints of these patients (12). These results were quite similar to our findings.

Brendner and his colleagues carried out a study aiming at evaluating sexual function before and after posterior colporic surgery for repair of rectolectomy in women referring to a hospital in Bern, Sweden. Evaluation of female sexual function before and after 6 months of operation showed that a significant improvement was observed in sexual desire ($p = 0.001$), in satisfaction and pain ($p = 0.0001$). However, no significant changes were observed in stimulation ($p = 0.897$), lubrication ($p = 1.01$), orgasm ($p = 0.893$). The researchers reported that colpoperineorrhaphy surgery improves some of aspects of sexual function (13). But in the present study, all domains were reduced. And this decline was significant in some areas.

Comparing the sexual function areas between the two groups in the field of sexual desire, there was no change in sexual desire between the two groups. According to the results of Hinchin et al. (2010), sexual desire did not change after the operation (14). In the study of Barber et al. (2002), there was no significant difference in women's sexual orientation before and after surgery [15], which were consistent with our study. Perhaps one of the reasons for this is that women's sexual desire is not affected by organic elements. This area is more affected by strong self-confidence, past sexual experiences, strong emotional connections, hormones, mental illnesses, and psychological illness (11).

Comparing sexual stimulation and arousal between the two groups, sexual arousal was reduced in the case group, but this decline was not statistically significant. The study results of Heinchin et al. (2010) on 47 cases did not show a significant difference in terms of arousal between the two groups before and after the operation (14). Arousal in women results from vascular enlargement and from blood retention in the pelvic organs. The entry of blood makes them diverge from normality and get prepared for their particular sexual function. Causes of this disorder are justified by vaginal manipulation during surgery.

Women who have difficulties in the phase of sexual stimulation experience genital pain and vaginal dryness and decreased lubrication simultaneously (11), as this was also seen in this study. In this study, a correlation was observed between arousal and lubrication ($P = 0.001$ and $r = 573$). On the other hand, there was a significant correlation between pain relief ($P = 0.001$ and $r = 353$). These correlations represent the direct effects of these three domains on one

another. The vascular congestion around the structure of volvolume and around the tissue placed in one third lower part of the vagina form a soft pillow, therefore, it reduces genital sensitivity (arousal) caused by penile penetration. On the other hand, vaginal covering epithelial cells provide the necessary moisturizing fluid secretions to facilitate penetration (5). Therefore, any interference and manipulation of this structure will disrupt the process, which can be justified by colpoperineorrhaphysurgery.

The mean score for orgasm was also reduced in the case group, but this decrease was not statistically significant. Also, the results of Kahan et al. (2000) on women with pelvic organ dislocation showed that there was a clear improvement in sexual performance after surgery, but orgasm did not change (16). When there is no sensory-motor function in the genital organs including pelvic floor muscles, orgasmic problems occur. As in this study, there was a correlation between orgasm and arousal (P = 0.02, r = 189). In addition, there are several negative stimuli that can interfere with the sexual stimulation and orgasm. Pain during intercourse is one of the negative triggers for inhibiting arousal, excitement and ultimately achieving orgasm (5, 11). Mean score of lubrication in the case group was lower than the control, and this decrease was statistically significant (P = 0.001). Disorders of this area are associated with pain and irregularities in orgasm. The manipulation resulting from pelvic surgery can cause dysfunction in nerves, vessels and glands, and reduce the slipperiness of vagina (11).

In the study of Kangas et al. and Tai Young (2010), the rate of vaginal dryness increased after surgery (17, 18), which was in consistent with our study. One of the reasons for this can be anatomical and neurovascular disorder that is caused by this action, which can disrupt the nerves, vessels, and reduce the vaginal slipperiness and will lead to disruption in this area (20, 19).

Also in the pain domain, the mean score in the case group was decreased, which was statistically significant (P = 0.001). This means that pain has increased during intercourse. One of the most common sexual problems after colpoperineorrhaphy surgery is dyspareunia. The results of the study indicated the percentage of post-operative dyspareunia (36-36%) (20,21,21,23). Duct dryness is one of the common causes of pain and discomfort during penetration. The adhesions resulted from pelvic surgery cause lesion of the vaginal wall, and the pain becomes inactive or complete. The incision of the cut of the surgery between the walls causes pain. The actual incidence of this disorder is unclear. Approximately 30% of women's genital surgeries lead to intercourse pain (11).

In the area of sexual satisfaction after surgery, it was not meaningful in the case group, meaning that colpoperineorrhaphysurgery had no effect on sexual satisfaction. The results of the studies by Hein Chien (2010) and Tai Young and colleagues in Korea were similar to our results (14). Sexual satisfaction after surgery increased ($p < 0.001$) in the study of Brendner et al. (2010) in Sweden, which was performed on 68 patients. The results of the study of Azar and colleagues were contradictory with our study (13, 24).

CONCLUSION:

The results show that the effect of elective colpoperineorrhaphy surgery does not have a significant effect on women's sexual satisfaction. Sexual function and pain during sexual intercourse and lubrication during intercourse were decreased in proportion to the case group. Due to automatic pelvic injury, changes in pelvic blood flow and change in attitude of the patient towards herself, pelvic surgeries affect sexual function. This study also suggests that the decisions be made on the choice of medical and surgical treatments only after a more accurate evaluation of these patients by a clinical interview and determining the severity of sexual dysfunction.

Limitations and strength of study

The most difficult part of this research was interviewing patients and control group at Peymaniyeh Educational Center, because the people who referred to the above-mentioned

center were in a specific socio-cultural situation and explaining the questions to them and getting the correct answers from them requires a considerable amount of time. However, due to the fact that it was the first time that these issues were raised, their answers were very close to authentic and highly reliable.

The use of the FSFI Women's Sexual Questionnaire, which includes all key aspects of sexual function and has a high degree of reliability and validity, and its comprehensiveness are among other strengths of our study, which has been used in very few Iranian studies.

Of other strengths of this study was to have a control group and that it was the elapse of six months from the time of surgery that distinguishes it from other studies.

CONFLICT OF INTEREST

All authors declare no conflict of interest.

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