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Evaluation of men's sexual function before and after hysterectomy of their wives related to cancer

Elham Saffarieh[1], Azadeh Yousefnezhad[2], Ramin Pazoki[3], Reza Ahmadi[4], Seyedeh Reyhaneh Yousefi-Sharami[5]

[1] Abnormal Uterine Bleeding Research Center, Semnan University of Medical Science, Semnan, Iran
[2] Department of Oncology and Gynaecology, Shariati Hospital, Tehran University of Medical Science, Tehran, Iran
[3] Department of Parasitology, Education Development Center, Semnan University of Medical Science, Semnan, Iran
[4] Department of Psychosexual, Ruzbeh Hospital, Tehran University of Medical Science, Tehran, Iran
[5] Department of Gynaecology and Obstetrics, Kordestan University of Medical Science, Sanandaj, Iran

SUMMARY

Background: Quality of life in general and sexual functioning, in particular, has become extremely vital in cancer patients. 150 years ago, hysterectomy has been the most common gynecologic surgery after cesarean section surgery in the world. It is estimated that 45% of all women have hysterectomy surgery until the age of 65. Contrary to men, there are a lot of studies about a woman's quality of life and her sexual satisfaction after hysterectomy. For these reasons, this study designed to investigate the sexual function of men whose wives have had a hysterectomy.

Methods: In this cross-sectional analytical study, 43 husbands of patients who have had a hysterectomy in Amir al moment in hospital in Semnan between the years 2017-18, evaluated for sexual activity. Sexual satisfaction including erectile function, orgasmic function, sexual desire, intercourse satisfaction and overall satisfaction regarding age, occupation, and education were studied.

Results: 43 cases with a mean age of 50.44 were included in the study. Age and occupation didn't have any relation to sexual satisfaction. (p>0/05) The educational factor was related to erectile function, orgasmic function, sexual desire and overall sexual satisfaction (p<0/05).

Conclusion: In this study, we didn't find any significant difference between sexual satisfaction in men before and after hysterectomy of their wives.

Key words: hysterectomy, cancer, sexual satisfaction, sexual function

Address for correspondence:

Reza Ahmadi, Department of Psychosexual, Ruzbeh Hospital, Tehran University of Medical Science, Tehran, Iran, email: R-ahmadi57@gmail.com

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INTRODUCTION

Despite the reduction in overall cancer outbreak and mortality rates in developed countries, cancer remains an important public health issue [1]. According to the World Health Organization (WHO) report in 2002, 146422 women have undergone a hysterectomy in Iran [2]. In recent years, performing hysterectomy has grown rapidly in pre-menopausal ages due to benign disorders of the genital tract in many cases. Performing hysterectomy in women both in menopause ages and in ages before normal menopause can cause psychological and physical disorders. In particular, pre-menopausal hysterectomy in women can interrupt their menstrual cycle and lead to more severe psychological harms [3].

Given the role of the uterus and ovary in the sense of being a woman and considering the community's view of the loss of these organs, studies have shown that most hysterectomized women have expressed concerns about the changes in their sexual status and the non-acceptance of the issue by their spouses [4]. On the other hand, in many studies on women who have undergone hysterectomy for various reasons and have been satisfied with the results, the reason for satisfaction has been mentioned as the disappearance of painful symptoms. However, these women have been worried about their sexual partners and hid the surgery from them in many cases [5]. In a study conducted in the African-American community, the hysterectomized women had reported that the men saw the surgery unpleasant and unfavorable for their spouses, sexual partners, and even their sisters [6].

However, Boucher's study in 2005 showed that sexual satisfaction and quality of life do not improve after hysterectomy [7]. Two major sexual problems can be caused as the complication of any type of hysterectomy: Orgasm disorder and pain during intercourse. Orgasm disorder depends on a temporary reduction in sexual activity that occurs after pelvic surgery. If this reduction lasts, it will most likely cause depression. Until now, many more studies have been done on the physical consequences of hysterectomy than its sexual-psychological disorders, which is due to more cooperation of men and women on issues outside the area of sexual relations. When sexual disorders occur in any area, the patients usually hide it or try to solve the problem at home. As a result, this spectrum of symptoms remains untreated, and failure to

properly treat them turns them into chronic symptoms, creates mental disorders, and ultimately disturbs the couples' comfort and peace [8]. Lack of the spouse's orgasm and pain during intercourse can affect the spouse's mood and morale and reduce their quality of life and sexual satisfaction as well. Considering this fact and as most studies have only focused on women's quality of life and sexual satisfaction after hysterectomy and the men have not been surveyed, we decided to design this study to evaluate the sexual function of men whose spouses have been hysterectomized. Accordingly, by accurate analysis and identifying potential problems, we hoped to help improve the quality of life and sexual satisfaction among such couples.

METHODS

In this cross-sectional and analytical study, the husbands (spouses) of patients referred to Amir al-Momenin Hospital who were a candidate for hysterectomy with ovarian preservation and met the inclusion criteria were evaluated. The inclusion criteria were having complete consent to participate in the study with a minimum age of 30 years for spouses of the studied women and maximum age of 50 years. The exclusion criteria included psychiatric illnesses of any of the couples, the use of psychiatric drugs be any of them and prior proven sexual dysfunction in each of the couples or earning the score less than 6 (i.e., the presence of sexual dysfunction) in the FSFI questionnaire. Given the fact that no similar study has been performed in this regard, this study was performed as a pilot with a sample size of 43 subjects. By the convenience sampling method, all patients admitted to the surgical ward of Amir al-Momenin Hospital since the beginning of the study were included in the study due to meeting the inclusion criteria until the sample size was completed. After approval of the project by the Research Council and the Ethics Committee of the University Research Unit and by obtaining the permission, the hysterectomized women were first evaluated by the FSFI international questionnaire.

These women were excluded from the study in the case of gaining a score of less than 6 (i.e., having a sexual dysfunction). The spouses of those who received a score of at least 6 and higher were evaluated with the International Index of Erectile Function (IIEF) questionnaire two times, one before surgery and the other three months after the surgery. This international tool has been devised to evaluate impotence (sexual dysfunction) in clinical trials. The tool is reliable and the patients can answer the questions by themselves. The Men's IIEF Questionnaire is a 15-item questionnaire to measure men's sexual function. The answers are measured by a Likert scale (score 5 for normal function) and the questions cover the following five domains of sexual function [9]. A higher score indicates better sexual function and the maximum acceptable score is 75, which indicates the best sexual status in different areas. Determining the severity of sexual dysfunction based on the scores obtained is as follows: 0-10: Severe sexual dysfunction; 11-16: Moderate sexual dysfunction; 17-21 Moderate to mild sexual dysfunction; 22-25: Mild sexual dysfunction; 26-30: No disorder.

The questionnaire has been developed and validated in an international study involving countries from Asia, Europe, and the United States. The sensitivity, specificity, and validity of the questionnaire have been assessed in 10 different languages at an excellent level [10]. The reliability and validity of the IIEF Questionnaire in men have been standardized by Ahmad Fakhri et al., in the research paper of the psychometric features of the Iranian version of the men's IIEF Questionnaire in Iran. This index has been also standardized by Gholamreza Rajabi, an Associate Professor of Ahwaz University of Medical Sciences in an article titled "The reliability and validity of sexual self-efficacy and erectile activity scale". This test has been used in several studies to evaluate sexual function in Iran [11].

Tab. 1. Men's sexual function criterion before and after women's hysterectomy

Men's Sexual Function Criterion	Before Hysterectomy Frequency (%)	After Hysterectomy Frequency (%)
Severe	5 (6.11%)	6 (14%)
Moderate	-	2 (4.7%)
Mild	-	-
Absence of disorder	38 (81%)	35 (81.4%)

Tab. 2. The mean sexual function scores of men before and after women's hysterectomy

Sexual function criterion	Before hysterectomy (SD ± Mean)	After hysterectomy (SD ± Mean)	p
Erectile function	16.34 ± 6.85	7.98 ±.5117	470
Functioning of sexual pleasure	582 ± 6.09	3.27 ± 6.55	460
Sexual need	1.31 ± 5.06	541 ± 6	0.2
Intercourse satisfaction	3.71 ± 9.04	624 ± .049	10
Overall satisfaction	861 ± 5.96	2.45 ± 5.41	0.3

The results of these data were scored and entered into the SPSS software and analyzed statistically with the K-S (Kolmogorov-Smirnov) test, correlation coefficient test, and the t-test.

RESULTS

A total of 43 husbands of the patients hysterectomized in Semnan Amir al-Momenin Hospital in 2017 with the mean age of 50.44 ± 53.3 (43-55 years old) were enrolled in the study.

The men's job status was as follows: 32 (74.4%): Self-employed, 6 (14%): Employee, and 5 (11.6%): unemployed.

The educational level of the spouses of hysterectomized patients was as follows: 22 (51.2%): Lower than the diploma, 19 (44.2%): Diploma, 2 (4.7%): Bachelor degree.

No significant statistical relationship was found between the sexual function of spouses of the hysterectomized patients with age, education, and job ($p>0.05$). Also, there was no significant difference between the sexual function of men before and after the spouses' hysterectomy ($p>0.05$) (Tables 1 and 2).

DISCUSSION

Performing hysterectomy has much grown in pre-menopausal age in recent years. However, the reason has been due to benign disorders of the genital tract in many cases. Performing hysterectomy in women, either in the normal menopausal or pre-menopausal years can cause psychological and physical disorders. In particular, pre-menopausal hysterectomy in

women stops their menstrual cycle and may lead to more severe psychological traumas [3]. In this study, 43 husbands of the hysterectomized women in Semnan Amir al-Momenin Hospital were assessed in terms of sexual satisfaction. The factors examined in the marital satisfaction included erectile function, sexual pleasure (orgasm) function, sexual need function, intercourse satisfaction function, and sexual satisfaction function, which relationships with age, education level, and occupation were also evaluated. The results showed that the factors of age and occupation had no relationship with sexual satisfaction. The factor of education level was the only factor significantly associated with erectile function, sexual pleasure, sexual need function, and satisfaction.

No significant difference was found between men's sexual function before and after their wives' hysterectomy.

In a study by Mahmood Salehi et al. [12] at Ahvaz Jundishapur University, no differences were seen between the sexual satisfaction of the spouses of hysterectomized women and the control group, which is consistent with the results of our study.

In the study by Carter et al. [13], postoperative depression and anxiety were in a better condition and the sexual function of women, although lower than normal, had improved within the next year. According to the results of this study, changes in mood, distress and anxiety, sexual function, and the quality of life were not dependent on the type of surgery and depended on post-operative counseling and post-operative supports.

The results of Goktas et al. study [14] indicated that hysterectomy and removal of ovaries and fallopian tubes have a short-term effect on the urinary problems and sexual function due to being benign. The patients with sexual dysfunction associated with more severe depression have had more sexual dysfunction, in case of whom, age, educational status, job conditions, and family structure were also effective in the situation.

CONCLUSION

According to the study results, no changes were seen in men's sexual function after a hysterectomy of their wives. However, further studies need to be done in this area and with a larger sample size in different provinces of the country considering the different individual and social cultures influencing sexual and marital relations.

CONFLICT OF INTEREST

None.

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