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Is tubal ligation effective on sexual dysfunction?

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Abstract

Objective: Commonly used methods for preventing pregnancy in Turkey are withdrawal (30%), intrauterine device (27.2%), tube ligation (16.7%), condom (15.2), injection (8.9%), and combined oral contraceptive (1.9%). Protection from pregnancy is one of the most important factors affecting women's health. One of the preferred methods to protect against pregnancy is the 16.7% choice of tube ligation. Tube ligation is used as a contraceptive method but this method has some undesirable consequences. Our aim in this study is to investigate whether tubal ligation has effect on sexually dysfunctional and it is related to the process.

Material method: We included in our study 161 patients using tubal ligation and 77 non-prevention methods. We recorded the demographic characteristics of these patients. We applied the fsfi scale. This questionnaire is a scale of sexual function assessment consisting of 19 questions evaluating sexual functions.

Result: We did not find any difference in the total fsfi (female sexual function index) score between the patients who underwent tubal ligation and those who did not. However, we found a significant decrease in sexual desire and satisfaction in the tubal ligation group. In the subgroup analyzes of the fsfi score, results indicate that the correlation bonds with the subgroups of the tubal ligation group was deteriorated.

Conclusion: Tubal ligation is a preferred method for contraception target, and various studies related to the effects on health have been made. Also, this study determined that tubal ligation has no effect on total fsfi scores. However, subgroup work seemed to have an effect on demand and satisfaction. In addition all, the duration of tubal ligation didn't have any effect on sexual function.

Keywords: Tubal ligation, FSFI, sexual dysfunction

Introduction

Tubal ligation is a surgical contraceptive method requested by the pairs who have completed the number of children and applied by doctors. Sexual dysfunction is used with the intention to define low desire level, orgasmic strength, decreased arousal and dyspareunia. Sexual dysfunction is also related to the problems of biological, psychological, and interpersonal relationships, and it is difficult to distinguish source of the problem. Problem has anatomical, physiological, medical, psychiatric and social components (1,2,3). Therefore, it is difficult to distinguish (4). Psychological factors include previous sexual trauma and previous physical or sexual abuse, sexual neurosis or financial problems, family or occupational problems, as well as familial disease, death, depression and interpersonal problems. Biological factors may be related to a number of causes, such as past surgical history, vascular diseases, recurrent urinary tract infections, endometriosis, sexually transmitted diseases, abnormal hormonal conditions (5,6). Sexual dysfunction is a high-rate phenomenon involving women of all ages who have been exposed in many community-based studies. Sexual dysfunction ranges between 22-93% in different age populations (7,8,9,10).

In a study of 4576 patients with tubal ligation, 80% of women post-tubal ligation couldn't be detected sexual reluctance. Conversely, those who said that there was a consistent change in these patients reported positive impact. Adverse effects were reported in women who felt regret after tubal ligation (11). Berman and colleagues have noted that sexual dysfunction is increasing with age (12). However, it is suggested that the prevalence of sexual dysfunction is also very high among young women (13).

The American Association of Urological Diseases organized a meeting in 1998 to make an international definition and classification of sexual dysfunction in women. This meeting was classified as female sexual dysfunction, sexual desire disorder, sexual arousal disorder, orgasmic disorders and painful sexual intercourse disorders (14).

Recently, the International Consensus Development Conference on Female Sexual Dysfunctions (Definitions and Classifications) has been organized to develop a new classification for sexual dysfunction regardless of etiology.

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This panel divides into four separate categories that can be categorized as ICD 10 (international clasification of dissease) as sexual dysfunction desire disorders, arousal disorders, orgasmic disorders and sexual pain disorders (14). In our study, the research is primarily planned about the category of desire disorders. FSFI (female sexual function index) scale was used to provide standardization of the planned study work on the patients entering this category and to obtain an objective result. We applied to the Turkish version of the FSFI scoring system used to assess sexual function. The adopted Turkish version of this scoring system is reliable. The FSFI scale consists of 19 items evaluating sexual functions to assess key dimensions of short, multidimensional and sexual functioning. Scoring scores were created by evaluating sexual activity in the last 4 weeks. This scoring system is a scoring system that evaluates sexual desire, arousal, lumbarization, orgasm, satiety and pain. (15, 16, 17, 18, 19).

Material and Method

Study population

We have included 161 tubal ligation patients who have applied to the gynecology pollinator of the Amasya University Sabuncuoğlu Şerefeddin Training and Research Hospital and who have chosen tubal ligation as the contraceptive method and 77 have chosen a preservation method other than this. We recorded the data that the FSFI scale was composed of 19 questions and evaluated sexual function in addition to data such as height, weight, age, smoking, chronic illness, occupation, number of children, duration of tubal ligation, menstrual cycle period, marriage duration and meeting type. Sexual desire, arousal, lumbarization, orgasm, satisfaction and pain were assessed by FSFI sexual function scale.

Statistical analysis

GraphPad Prism version 6.00 (GraphPad Software, La Jolla California USA) was used for statistical analysis of collected data. Sociodemographic correlations with tubal ligation were assessed using chi-square analyzes. A t-test (Mann-Whitney U test) was calculated to assess general sexual and / or sexual health status in women with or without tube ligation. Pearson analysis was performed for correlation analysis. If r <0.2, there was no correlation between weak and weak correlations, weak correlation between 0.2-0.4, moderate severe correlation between 0.4-0.6, high correlation between 0.6-0.8 and 0.8> was commented. The results were evaluated in a confidence interval of 95% and a significance level of p <0.05.

Results

A comparison of some sociodemographic and sexual functions in untreated and untreated subjects was shown in Table 1. There was a significant difference between demographic data of patients with tubal ligation and patients without tubal ligation in terms of desire and satisfaction. There was a statistically significant decrease in demand and satisfaction in patients with tubal ligation. However, there was no difference in arousal, lubrication, orgasm, pain and total scores. Distribution of some sociodemographic and sexual functions among the groups was shown in Table 2 by chi-square test. It was found that the preference rate of tubal ligation was significantly higher in housewives than that of women working in outside.

Correlation analysis between some parameters in tubal ligated and untreated subjects was shown in Table 3 and Table 4. When the correlation analysis between the parameters we used in the total evaluation of sexual functions was evaluated in tubal ligation individuals, there was a significant correlation between orgasm and lubricationlubrication and between satisfaction and arousal.

There was no relationship between tubal ligation duration and sexual desire and other parameters on the sexual function parameters of tubal ligation. However, in patients without tubal ligation, a correlation in moderate and high rates was found between lubrication and stimulation, between the orgasm and desire, stimulation and lubrication, between satisfaction and cravings, between arousal, lubrication and orgasm, between pain and lubrication.

In this study, we show that the tubal ligation and the components related to the correlations at individual levels of each of the sexual function scale contents of patients are disrupted by tubal ligation.

We found that the positive correlations between the 5 different components of the FSFI scale between tubal ligation patients and normal individuals were impaired.

Table 1: Comparison of some sociodemographic and sexual functions in subjects with and without tube ligation.

	Tube ligation applied (n=161)	Tube ligation not applied (n=77)	p-value
Age	35,51 ± 0,41	34 ± 0,75	> 0,1673
Height	162,4 ± 0,47	161,8 ± 0,72	> 0,4064
Weight	68,45 ± 0,78	66,43 ± 1,02	> 0,1673
Number of children	3,01 ± 0,28	1,39 ± 0,09	< 0,0001
Marriage duration	15,32 ± 0,39	10,55 ± 0,77	< 0,0001
Desire	3,95 ± 0,12	3,68 ± 0,11	< 0,0033
Arousal	4,08 ± 0,06	4,11 ± 0,12	> 0,7333
Lubrication	4,28 ± 0,05	4,19 ± 0,10	> 0,4720
Orgasm	4,47 ± 0,07	4,51 ± 0,13	> 0,4778
Satisfaction	4,44 ± 0,9	4,80 ± 0,12	< 0,0430
Pain	4,2 ± 0,11	4,31 ± 0,16	> 0,6200
Score	26,47 ± 0,30	25,70 ± 0,59	> 0,4880

p< 0.05 statistically significant.

Table 2: Distribution of some sociodemographic and sexual functions among the groups.

	Ligated tube (n=161)		Tubeless ligation (n=77)		χ^2	p
Cigarette	n	%	n	%		
yes	105	65,2	49	63,6	0,1317	0,7166
no	56	34,8	29	36,4		
Job	n	%	n	%		
nurse	11	6,8	47	60	122,7	< 0,0001
company employee	1	0,6	13	16,8		
housewive	82	50,9	14	18,1		
the other	67	41,7	4	5,1		
Did you marry with your own choice?	n	%	n	%		
no	9	5,6	4	5,2	0,02179	0,8826
yes	152	94,4	74	94,8		
Marriage Types	n	%	n	%		
The person she met	116	72	56	72,7	0,001691	0,9672
Arranged by others	45	28	22	27,3		
Mensturatiın Period	n	%	n	%		
regular	136	84,4	62	80,5	1,025	0,5991
irregular	16	9,9	11	13,2		
already irregular	9	5,7	5	6,3		

p< 0.05 Statistically significant.

Table 3: Correlation analysis between some parameters in tube ligation individuals

Parameters	Tube Ligation Time	Arousal	Lubrication	Orgasm	Satisfaction	Pain	Marriage duration	Total score
Tube Ligation Time	1							
Arousal	0,037*	1						
Lubrication	0,041*	0,183*	1					
Orgasm	-0,005*	0,268**	0,519***	1				
Satisfaction	0,036*	0,407***	0,2847**	0,807#	1			
Pain	-0,029*	0,100*	0,0015*	-0,013*	0,063*	1		
Marriage duration	0,7964&	-0,020*	0,0036*	-0,040*	-0,044*	0,061*	1	
Total score	-0,067*	-0,056*	0,156*	-0,019*	-0,109*	0,193*	-0,109*	1

*None or very weak, **weak, *** moderate, high &, refers to the very high correlation

Table 4: Correlation analysis between some parameters in untube-lived individuals

Parameters	Desire	Arousal	Lubrication	Orgasm	Satisfaction	Pain
Desire	1					
Arousal	0,622&	1				
Lubrication	0,401***	0,603&	1			
Orgasm	0,530***	0,777&	0,649&	1		
Satisfaction	0,501***	0,712&	0,481***	0,713&	1	
Pain	0,279**	0,437	0,415***	0,502***	0,327**	1

*None or very weak, **weak,*** moderate, high &, refers to the very high correlation.

Discussion

In a study conducted in 2008, sexual desire scores of patients who underwent tubal ligation and infertile couples were evaluated, and they concluded that these groups were similar in terms of sexual desire and dysfunction (20). Gülüm and colleagues showed that the sexual function was decreased significantly by the tubal ligation in a study which conducted on 153 patients at 2010 (21). Visvanathan and his colleagues also reported that tubal ligation is associated with increased menstrual cycle and menopausal symptoms as well as depressive symptoms, and increased menopausal cardiovascular disease, coronary heart disease, diabetes and osteoporosis (22).

Conclusion

In our study, no statistically significant difference was found in the total scores between the results of the FSFI sexual function test and tubal ligation procedures. However, when individual components were evaluated, a statistically significant reduction in demand and satisfaction was found. When the process-dependent effect of sexual dysfunction was assessed, it was observed that this condition did not make a cumulative change in sexual desire when the duration of tubal ligation was prolonged.

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Ethical issues: All Authors declare, Originality and ethical approval of research. Responsibilities of research, responsibilities against local ethics commission are under the Authors responsibilities. The study was conducted under defined rules by the Local Ethics Commission guidelines and audits.

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