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Original Research Article

Sexual Dysfunction Assessment after Hysterectomy

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Abstract: The main aim was to assess sexuality after hysterectomy using the Female Sexual Function Index (FSFI) and determine related risk factors for altered sexual functioning. This study was hospital based descriptive type of observational study conducted among 150 sexually active women three months after hysterectomy for benign cause. The FSFI and a general questionnaire containing personal sociodemographic data were applied. In results62.00% hysterectomised females had sexual dysfunction and dyspareunia was common among these women. Mean + SD of FSFI Score of women with sexual dysfunction was 22.56 + 4.49 whereas women without sexual dysfunction was 28.19 + 5.52,P- value 0.001.In conclusionsexuality after total abdominal hysterectomy (TAH) was worse can have negative effects on overall wellbeing.
Keywords: Female sexual function index (FSFI), Sexual Dysfunction, Total abdominal hysterectomy

INTRODUCTION

Sexual health and satisfaction are intricate parts of general health. When patient is experiencing sexual difficulties or dysfunction, it can have a negative impact on their overall health status. Sexual dysfunction (SD) refers to a problem during any phase of sexual response cycle that prevents the individual or couple from experiencing satisfaction from sexual activity.

Based on the National Health and Social Life Survey scores of 1,749 women, aged between 18 and 59 years, the prevalence of Female Sexual Dysfunction (FSD) was reported to be 43% in the United States (Berman JR 2004).Sexual dysfunction is more prevalent for women (43%) than men (31%) in US [1]. Female sexual life, when considered in all aspects, is a highly complex phenomenon. Perception of sexuality among middle-aged women is influenced by ethnicity, education, social status, psychological wellbeing, partner characteristics and the presence and severity of common menopausal complaints [2].

Human sexual response is regulated by a complex set of biological interactions, psychological inputs and affective variables, all conditioned by cultural and interpersonal relationship[3]**.** Menopausal status and pelvic surgeries are two important conditions that have an effect on the sexual functions of women

Hysterectomy is one of the commonest gynaecological procedures undertaken in the UK and in the USA. It is estimated that in USA about 600,000 hysterectomies are performed annually. Rate of hysterectomy was 5.6 per 1000 women in 1997 in U.S. In India no national statistics for hysterectomy is available. In 2015 a study conducted in a northern state of India (Haryana) states that incidence of hysterectomy was 7% among married women above 15 years of age. Another study from a western state (Gujarat) in 2011 pointed out that 7-8% of rural women and 5% of urban women had already undergone hysterectomy at an average age of 37 years.

Historically the uterus has been regarded as the regulator and controller of important physiological functions, a sexual organ, a source of energy and vitality and a maintainer of youth and attractiveness[4]. Women are concerned that hysterectomy may affect their sexual wellbeing or their sexual attractiveness. Hysterectomy has been reported as having adverse as well as beneficial effects on sexual wellbeing.

This study aimed to determine the percentage of sexual dysfunction among hysterectomised women, and to explore the factors that may be related to sexual dysfunction among the hysterectomised women. The results of this study should help identify status of sexual dysfunction among hysterectomised women and

enhance development of programs for prevention and treatment.

METHOD

This was a hospital base descriptive type of observational study conducted in Department of Obstetrics and Gynaecology, Mahila Chikitsalya, SMS Medical College, Jaipur from March 2014 to December 2015. This study included sexually active 150 women between 40-60 years of age, with 3 months since their hysterectomy, attending the OPD after obtaining an informed consent. After detailed history taking, complete general physical examination, systemic examination and gynecological examination was done. Participants were surveyed with the FSFI and an itemised questionnaire containing general sociodemographic data (personal). Mean FSFI score was calculated and its relation with various parameters of hysterectomy was determined and correlated.

RESULTS

Out of 150 cases 93 (62.00%) hysterectomised females had sexual dysfunction. The maximum number of females with sexual dysfunction was in the age group of ≤49years. Majority of the cases studied were Hindus (92.67%)About 77(51.33%) women having sexual dysfunction were from urban area. Out of 93 cases 36.67% of illiterate women were suffering from sexual dysfunction. Mean + SD of FSFI Score was found to be higher (25.73 + 5.12) in the age group of <49 years as compared to females of the age group > 49 years. (Table – 1)

Maximum Females suffering from sexual dysfunction belongs to lower socio economic status. Mean + SD of FSFI Score was (24.25 + 5.27).Mean + SD of FSFI Score was found to be higher (25.52 + 4.88) in literate women as compared to illiterate females (24.17 + 6.00). Mean +SD of FSFI Score was lower in menopausal women as compared to premenopausal women. Statistically significant difference was observed when comparison was done between mean + SD of FSFI Score of these cases (p <.001).

Out of 93 cases observed with sexual dysfunction in the present study, the most common indication for hysterectomy was found to be Leiomyoma 34 (26.00%). There was negative correlation between age & FSFI Score (Fig -1). It means that as the age is increasing the FSFI Score is decreasing. The Correlation between these two parameters statistically significant (p <0.001). (Table - 2)

Mean + SD of FSFI Score found to be lower in females with sexual dysfunction than those without sexual dysfunction. The difference in these two parameters was statistically highly significant (p <0.001). (Table -3)

In women having sexual dysfunction due to decrease desire, Mean + SD of FSFI Score was lower than females having inadequate lubrication and dyspareunia. Dyspareunia was the most common complaint in the study group as compared to decrease desire and inadequate Lubrication. When mean ± SD of FSFI score was applied to the data, it was found to be statistically significant (p < 0.05). (Table -4)

Table 1: Mean + SD of FSFI Score according to age of study subjects

	Age group (In Yrs)		**P- value**	**Significance**
	< 49 (n =128)	> 49 (n = 22)		
Mean + SD	25.73 + 5.12	18.73 + 4.59	< .001	Highly Significant

Table 2: Correlation between age & FSFI Score

Correlation	**r-value**	**P-value**	**Significance**
Age v/s FSFI Score	- 0.516	< .001	Highly Significant

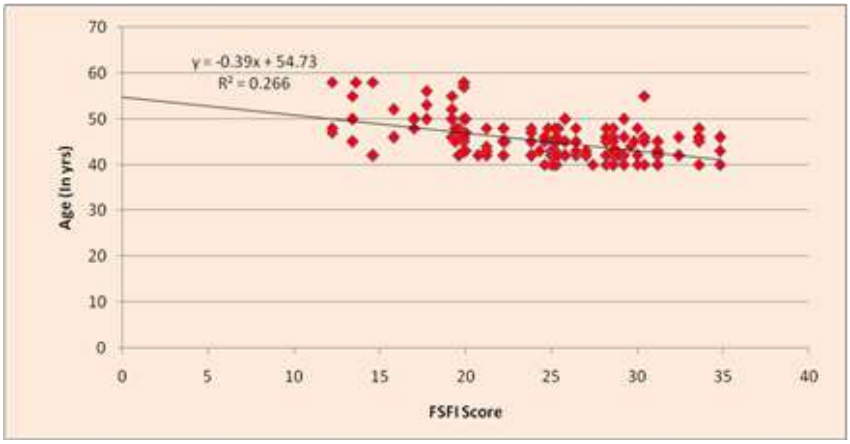

Fig 1: Correlation between age & FSFI Score

Table 3: Mean + SD of FSFI score according to Sexual dysfunction of study subjects

	Sexual Dysfunction		P- value	Significance
	Present (n =93)	Absent (n = 57)		
Mean + SD	22.56 + 4.49	28.19 + 5.52	< .001	Highly Significant

Table 4: Mean + SD of FSFI Score according to factors related to lower sexual function of study subjects

Factors Related To Lower Sexual Function	No.	Mean + SD
Decrease desire	16 (17.20%)	18.44 + 4.26
Inadequate lubrication	19 (20.43%)	23.26 + 5.09
Dyspareunia	58 (62.36%)	23.38 + 3.60

Decrease desire v/s Inadequate Lubrication	P < .05	Significant
Decrease desire v/s Dyspareunia	P < .05	Significant
Dyspareunia v/s Inadequate Lubrication	P > .05	not significant

DISCUSSION

There is a continuity and synchronization of different organs in the reproductive system to concede sexual function. Sexuality is therefore a dynamic process that changes with everyday life problems [5] and has a high degree of subjectivity and overlapping that imposes difficulties when it comes to assessing each and every factor involved in the normal sexual response. Despite this, in clinical practice, attempts have been made to assess these subjective feelings by means of open and structured interviews, and questionnaires [5].

PeterChedraui *et al.*[6] Collaborative Group for Research of the Climacteric in Latin America (REDLINC) 2010, that Significant inverse correlations were found between all FSFI and MRS scores. This was most evident for the MRS urogenital score in relation to FSFI total, pain and lubrication scores. Multiple linear regression analysis determined best model predicting total FSFI index scores that explained a 66% of the variance. In this model, MRS urogenital score was an important predictor of female sexual function (total FSFI scores) with a significant inverse relation. Additionally total FSFI scores displayed a significant positive correlation with female educational level and HT use and an inverse relation with partner age and female parity.

Dr. Karthikeyan*et al.*[7] the most common indication for hysterectomy was leiomyoma (41%) followed by adenomyosis (15.5%) and the most common presentation was increased bleeding. The mean age of hysterectomy was 44.6 years and the average parity of the patients was 1.7.

Sujan Vaidya *et al.;* found that out of the 533 cases, fibroid was the most common indication for hysterectomy that was seen in 229 (42.94%) cases followed by uterovaginal prolapse in 101 (18.93%) cases. Leiomyoma was the most common pathology reported in 250 (46.90%) hysterectomy specimens [8].

Husnu Celika *et al.;* it was found that hysterectomies by abdominal or vaginal routes reduced FSFI scores significantly ($p<0.05$). The use of ERT were no effect on total score of FSFI in AH and BSO ($p>0.05$). ERT prevented deterioration of FSFI in

women who underwent VH relative to preoperative values but AH. Hysterectomy causes unfavourable effects on sexual functions at least in the first 6 postoperative months and this negative effect cannot be repaired by estrogen replacement therapy in AH and BSO.

Despite the fact that upon bivariate analysis FSFI scores (total and domain) were inversely correlated to age and the menopausal stage (lower and thus more impaired), logistic regression analysis determined that female age was a significant risk factor for lower sexual function only in terms of desire and arousal. Contrary to this, perimenopausal status at time of surgery was a protective factor for bad lubrication, supporting the idea that young women may have better sexual functioning indexes. Decrease desire, inadequate lubrication, dyspareunia the pain during coitus, is generally related to lower sexual function after hysterectomy but dyspareunia was felt by majority of the respondents.

Abdelmonem AM[9] reported that the postoperative dyspareunia is more common after vaginal hysterectomy compared to abdominal hysterectomy.

JYOT*et al.*[10]found TAH patients experienced worse postoperative sexual function than SCH patients with respect to intercourse frequency and overall sexual satisfaction. Irrespective of type of hysterectomy, patients who underwent bilateral salpingo-oophorectomy experienced worse overall sexual satisfaction.

Cindy M*et al.*[11]suggest the hypothesis that physiological sexual arousal may be impaired with hysterectomy surgery was only partially supported.

Risa Lonnée-Hoffmann *et al.*[12] for about 20 % of women, deteriorated sexual function has been reported and current research is attempting to identify mechanisms and predictive factors explaining these postoperative changes. Concomitant oophorectomy had negative effects on sexual function and long-term health, particularly in premenopausal women. This may not be reversed by estrogen replacement. Hysterectomy performed for malignancy had a detrimental effect on sexual function. Individualized risk assessment and information should be aimed at during preoperative decision making.

GoktasSB *et al.*[13] found while hysterectomy and bilateral salpingo-oophorectomy performed for benign reasons brought about short-term improvement in urinary problems after the operation for sexually active and healthy women, they resulted in sexual dysfunction and increase in depression. The age, educational status, working condition and family structure is also important.

Ranee Thakar [14] founda significant minority of women reported sexual dysfunction following hysterectomy. Deterioration in sexual function was found on long-term follow-up, which is probably an effect of aging and bilateral salpingo-oophorectomy.

The present study reveals significant negative impact on sexual function after hysterectomy. Several studies to evaluate the effect of hysterectomy performed for benign conditions on female sexual function in different part of the world. Results of these studies are in conformity with the present study.

CONCLUSION

Hence on concluding the present study, Female sexual dysfunction is a multifactorial and complex problem of the community. The results of this study showed that sexuality after total abdominal hysterectomy (TAH) was worse.Dyspareunia was common among these women, can have negative effects on overall wellbeing.In order to reduce the incidence and allay the sexual dysfunction amongst these females, regular counselling should be available before and after the hysterectomy for the complete health of the couple.A larger sample size with a metacentric study may further strengthen the results obtained in the study.

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