ORIGINAL ARTICLE

Depression, anxiety, sexual dysfunction, and obsessive-compulsive disorder before and after female cosmetic genital surgery

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ABSTRACT

Background: Plastic genital surgery is an important and common type of cosmetic surgery among women. Determination of therapeutic outcomes of surgery especially besides the somatic results is important. We aimed to determine the preoperative and postoperative depression, anxiety, sexual dysfunction, and obsessive-compulsive disorder in women undergoing cosmetic genital surgery in comparison with postoperative status.

Methods and materials: In this before and after study, 30 consecutive women older than 18 years undergoing cosmetic genital surgery in 2018 and 2019 in Taleghani and Imam Khomeini Hospitals, Tehran, Iran were enrolled and preoperative and postoperative depression, anxiety, sexual dysfunction, and obsessive-compulsive disorder were compared in them using HADS (hospital anxiety depression scale), FSFI (female sexual function scale), and Yale-Brown OCD questionnaire.

Results: The results in this study demonstrated that preoperative and postoperative depression, anxiety, sexual dysfunction, and obsessive-compulsive disorder were significantly different ($P < 0.05$).

Conclusion: Cosmetic genital surgery can reduce depression, anxiety, sexual dysfunction, and obsessive-compulsive disorder in women.

Keywords*:* Cosmetic genital surgery, Labiaplasty, Perineorrhaphy, Sexual Dysfunction Disorder, Depression, Anxiety, Obsessive Compulsive Disorder

INTRODUCTION

Plastic and reconstructive surgeries are procedures for improvement in cosmetic rather than functional aspects in various organs(1). Based on the American Society for Aesthetic Plastic Surgery (ASAPS), more than 9 million surgical and nonsurgical cosmetic procedures were carried out in the United States in 2011, a 197% promote since 1997(2). Factors that could play a role in this increase in popularity include social acceptance of plastic surgery procedures and media coverage that demonstrates novel consequences to the public (3, 4).

According to the definition of the World Health Organization, female genital mutilation/cutting (FGM/C) is any deliberate procedure to partly or fully remove external female genitalia or any damage to the female genitalia that is non-curative(5). The main causes for requests among women for cosmetic genital surgery include a better presentation of the vulva, removal of asymmetry in the vulva, reduction of dyspareunia, low clitoris stimulation due to higher folds, pain during workout activities, problems by tight wearing, stretch, laceration, burning sensation while exercise, decreased excretion of vaginal discharges, recurrent vaginal infections, and hyper-pigmented labia minor (6, 7). TRIM, Labiaplasty, WEDGE, and perineorrhaphy are important types of female cosmetic genital surgery (8, 9). Labiaplasty and perineorrhaphy are the main cosmetic genital surgeries in women and sometimes in non-married girls (10, 11). Vaginal surgeries may be done by laser, suture material, fat/gel injection, PRP, and radiofrequency tools (12, 13). In these surgeries, some functional improvements may be developed simultaneously (14). Increased requests for such surgeries necessitate discriminating between medical and cosmetic etiologies (15). Four main motives for such surgeries include cosmetic, functional, sexual, and mental issues (10, 16). These are mainly related to fear of negative views from their partner and decreased sexual sensations (11, 14, 17). However, the partner's view is less common in studies (14, 17). Croach et al reported the main motivations as cosmetic improvements (60%), non-pleasant sensation (18%), decreased self-esteem (9%), sexual relationships improvement (6%), and better health status; while there are few cases with obvious asymmetry in labia requiring the surgery and mainly the labia size is normal (10). Also, some requests may be due to mental etiologies. For this matter, we aimed to determine the preoperative and postoperative depression, anxiety, sexual dysfunction, and obsessive-compulsive disorder in women undergoing cosmetic genital surgery.

MATERIALS AND METHODS

Patients: In this before and after study, 30 consecutive women older than 18 years undergoing cosmetic genital surgery in 2018 and 2019 in Taleghani and Imam Khomeini Hospitals, Tehran, Iran were enrolled. The inclusion criteria were indication and request for female genital cosmetic surgery, female sex, background psychiatric disorders such as obsessive-compulsive disorder (OCD), hypochondriasis, etc. The cases without intention to participate in the study were excluded.

After obtaining the necessary permission from the vice chancellor for Research and the Ethics Committee of

Shahid Beheshti University in Tehran, patients were selected by convenience sampling and evaluated before and between 3 to 6 months after surgery. Patients were also assured that their information would be kept confidential and that no changes would be made to their diagnostic and treatment procedures.

Method of study: HADS (hospital anxiety depression scale), FSFI (female sexual function scale), and Yale-Brown OCD questionnaire were used for data collection. HADS was designed by Zigmond and Snaith (1983) (18). On this scale, there are seven questions related to the symptoms of anxiety and seven questions related to the symptoms of depression. A score of 11 has been suggested as the cut-off point, and scores above that are clinically significant. FAFI also measures women's sexual performance index with 19 questions, measuring women's sexual performance in 6 independent areas of desire, psychological arousal, moisture, orgasm, satisfaction, and sexual pain. The Yale-Brown OCD Scale consists of two parts including the symptoms checklist (sc) and the severity scale (ss). 16 sc items are answered on a five-point Likert scale on a self-report basis. In ss, each of the obsessions and compulsions is examined in five dimensions: the degree of confusion, frequency, interference, resistance, and control of symptoms.

Finally, after collecting the questionnaires, all demographic variables were also recorded in the checklists by semi-interview. Preoperative and postoperative depression, anxiety, sexual dysfunction, and obsessive-compulsive disorder were evaluated in them in the preoperative phase and after 3 and 6 months. All questionnaires were validated in Persian-version with reliability and validity of over seventy percent.

Statistical analysis: Data analysis was done by statistical package for social sciences (SPSS) version 20.0 software. The utilized tests included Kolmogorov-Smirnov, Independent-Sample-T, Mc-Nemar, and Chi-Square. The P values less than 0.05 were considered statistically significant.

RESULTS

Based on the obtained results, the mean age was 45.9 ± 9.1 years; in terms of education, 70% of patients had undergraduate education and 30% had diplomas. Only one case was non-married (divorced) and 96.7% of women were married. The median parity and children count was three. All cases had a history of normal vaginal delivery and in three cases, additional cesarean section was done in other deliveries. Only one case had a history of other cosmetic surgeries. Partner's force for surgery was reported by eight cases (26.7%). The motivation for cosmetic surgery was optimal status, organ prolapse, and others in 33.3%, 46.7%, and 20.0%, respectively.

Table 1: Depression, anxiety, and OCD before and after operation

Disorder	Before surgery	After surgery	P Value
Anxiety	9 (30.0%)	6 (20.0%)	0.001
Depression	8 (26.7%)	7 (23.3%)	0.001
OCD	7 (23.3%)	6 (20.0%)	0.001

As shown in Table 1, the preoperative and postoperative depression, anxiety, and obsessive-compulsive disorder were significantly different ($P < 0.05$). Also, the sexual function was significantly improved after the operation in the majority of items (Table 2).

Table 2: Female sexual function before and after operation

Item	Before surgery	After surgery	P Value
Desire	4.6 ± 2.0	5.4 ± 1.2	.007
Arousal	8.3 ± 4.5	10.1 ± 3.3	.008
Lubrication	8.7 ± 3.9	10.6 ± 2.3	.013
Orgasm	6.9 ± 3.1	7.9 ± 1.8	.068
Satisfaction	7.6 ± 3.4	7.8 ± 2.7	.755
Dyspareunia	8.0 ± 4.7	9.8 ± 2.5	.076
Total	44.1 ± 17.2	51.5 ± 10.2	.007

DISCUSSION

Investigations indicate that many women who request a consultation for cosmetic surgery have the criteria for a psychiatric disorder such as body dysmorphic disorder, narcissistic personality disorder, or histrionic personality disorder (3, 19). Considering the high importance of mental issues in cosmetic surgeries, in this study, the psychiatric status of cases was compared before and after female cosmetic plastic surgery. The results of the present study demonstrated that depression, anxiety, OCD, and sexual dysfunction were improved after the female cosmetic plastic surgery. Overall, satisfaction, orgasm, and dyspareunia did not change significantly, and at the same time, significant differences were observed in desire and arousal in patients. The partner's satisfaction is a non-assessed important issue that may be evaluated in future studies. In a study by Goodman et al. (14) 33 cases were studied and no improvements were reported in sexual function and mental status, but they reported a decreased hypochondriasis. Also, in a case report study, Mestre-Bach et al. confirmed that FGM/C reconstructive surgery can reduce psychopathological and sexual disorders, however, more investigation is required in order to promote information on the potential advantages of genital reconstruction and to complete the surgery procedures (20). In another research, Sharp et al. (11) compared cases with and without cosmetic plastic surgery and the sexual and mental status were not considerably different across the groups. However, there was no control group in our study, but it can be considered in future studies for better evaluation. Veale et al. (16) also compared two case and control groups with and without female plastic sexual surgery and reported improved satisfaction from the genital cosmetic status after surgery in the case group, but the sexual function was not altered considerably. As shown by Croach et al. (10) both sexual function and mental status can be improved after female sexual cosmetic surgery.

It is important to consider that researches about "normalcy" in female genitalia displayed a large range of naturally arising variation (21). Among sexually active women, inconvenience with the form of their genitals interpreted into anxiety and deterrence during sexual activity for fear of a partner's negative evaluation, although a partner's negative response is scarcely recorded by patients as a reason for surgery (22). Therefore, the primary target of vulvovaginal aesthetic surgery is to decrease this negative self-focus for women, to obtain a

"normal" genital appearance, and to alleviate disturbance (14).

In a study by Goodman et al. (17) among 120 women undergoing cosmetic genital surgery and 50 control subjects it was found that both cosmetic and satisfaction issues were improved in the intervention group and the results were in line with our findings. A review study (23) in 2019 declaimed that cosmetic genital surgery in women is accompanied by improved mental condition and also higher sexual function and quality of life. The findings of the present study were also similar to these results.

Desai et al. (24) reported improved sexual function after genital cosmetic surgery and also a high satisfaction rate among women after the operation, which was similar to our study. Inan et al. (25) assessed 40 women under cosmetic sexual surgery and similarly found that various sexual function items including lubrication, arousal, orgasm, satisfaction, and libido were improved. In our study also the total score of sexual function was improved. Barbara et al. (26) reported in a review study that female cosmetic sexual surgery can improve the psychiatric status and sexual function and it is associated with experiencing high satisfaction and no complications. Also, in our study, no side effects were reported in patients.

Overall, based on our results, to properly evaluate cosmetic surgery patients prior to the operation, an effective and clinically useful tool is required, that can identify not only psychological distress but also inopportune concerns and motivations in these patients. Thus, in cases with postoperative psychiatric problems in second screening, referral to a psychiatrist is recommended. The selection of some cases with specific inclusion criteria has been led to decreased generalization ability, and also in this study, the socio-economic conditions were not assessed, which was one of the limits of our study. Further studies with a larger sample population and multi-center sampling and also an assessment of the partners' satisfaction rate and other psychiatric aspects with consideration of the control group can develop further evidence in this field.

CONCLUSION

Totally, according to the obtained results, it is concluded that cosmetic genital surgery can improve depression, anxiety, sexual dysfunction, and obsessive-compulsive disorder in women. Also, it can be associated with improved sexual function in these women.

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