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Evaluation of urogynecological and sexual functions in patients with vulvar cancer

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INTRODUCTION

Vulvar cancer is a rare malignancy that primarily affects postmenopausal women [1]. History of cervical cancer, HPV (Human Papilloma Virus), smoking, immunosuppression, and genetic pathologies are risk factors [2]. Radical vulvectomy or skinning vulvectomy is performed in the treatment of vulvar malignancies. Anatomically, scar tıssue and nıghtenıng of the vagınal orıfice may occur ın the vulva. Symptoms in terms of body ımage disorder, sexual performance, and urological pathology may occur [3-5]. This study aimed to investigate the extent to which surgical treatment of malignancies of the vulva, affects the urogynecological and sexual functions of patients. Female Sexual Function Scale (FSFI), Urinary Incontinence Quality of Life Scale (I-QOL), and Bristol Female Lower Urinary Tract Symptoms Index (BFLTS) were used.

The FSFI scale consists of 19 items and assesses six subscales: desire, arousal, lubrication, orgasm, satisfaction, and pain. Subscale scores are obtained by multiplying the raw score for each subscale by the relevant multiplier coefficient, and the total FSFI score ranges from 2 to 36. A higher score indicates better sexual function [6]. In the Incontinence Quality of Life Scale (I-QOL), which consists of 22 items, all items are evaluated on a five-category Likert-type scale (1: very much, 2: relatively, 3: moderate, 4: a little, 5: not at all). The scores of I-QOL and its subscales are obtained by summing the scores of each item and dividing this total by the number of items. To make the scores more straightforward to explain, the calculated total score is converted to a scale from 0 (lowest quality of life) to 100 (highest quality of life). Higher scores indicate a higher quality of life than lower scores [7]. BFLTS: If individuals answered yes to the 8th or 11th questions in Bristol, they are classified as UUI; if they answered yes to the 10th question, they are classified as SUI; if they answered yes to the 11th question, they are classified as MUI; and if they answered yes to the 12th and 14th questions, they are classified as DUI [8]. A total of 31 women were included in the study: 11 patients with vulvar cancer and 20 age-matched controls.

DESCRIPTION

The mean age of the control group patients was 58.95, while the mean age of the vulvar cancer patients was 69.18. When comparing the vulvar cancer group with the control group, no significant differences were found between the two groups for comorbidities, prior surgery, indication for surgery, type of surgery, gravida, or parity. Female Sexual Function Index (FSFI) scores of patients with vulvar cancer showed a significant change over time (1st, 3rd, and 6th months) (p=0.050). FSFI scores were lowest at 1 month postoperatively (3.24 ± 2.16) and demonstrated improvement at 3 months (7.32 ± 8.71) and 6 months (7.45 ± 8.93). Post-hoc analysis

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indicated that both the 3 and 6-month scores were significantly higher than the 1-month score. When compared with the control group, FSFI scores were consistently lower in the vulvar cancer group at all time points. The control group maintained higher sexual function levels across the 1st, 3rd, and 6th months, indicating that although partial recovery occurred in the cancer group, sexual function remained impaired relative to controls. Bristol Female Lower Urinary Tract Symptoms (BFLTS) scores remained stable over time in the vulvar cancer group. Mean scores were 11.82 ± 11.11 at 1 month, 12.09 ± 12.11 at 3 months, and 12.00 ± 12.17 at 6 months, with no statistically significant difference between time points (p=0.870). Furthermore, symptom severity did not significantly differ from that of the control group at any time point. Urologic Document (UD) scores also demonstrated no significant temporal change. Scores were 4.64 ± 2.11 at 1 month, 3.45 ± 3.08 at 3 months, and 3.45 ± 3.33 at 6 months (p=0.110). These values indicate stable urological outcomes throughout follow-up, with no meaningful difference compared with the control group. This study compared patients with vulvar cancer and controls in terms of demographic and clinical characteristics. Furthermore, changes in sexual function, urinary symptoms, and urological status of vulvar cancer patients over time were evaluated. Apart from age, no significant differences were found between the groups for comorbidities, previous surgeries, indication for surgery, type of surgery, gravida, or parity. Findings showed that sexual function was higher in the control group at all time points, while it remained significantly lower in vulvar cancer patients, particularly at month 1. However, Bristol female lower urinary tract symptoms and urological document scores did not change significantly over time or compared to the control group. These results suggest that, while sexual function is affected in vulvar cancer patients, urinary symptoms and urological status remain broadly stable (Tables 1 and 2).

Tab. 1. Comparison of sexual function, urinary symptoms, and urological status of patients with vulvar cancer at the 1st, 3rd, and 6th months.

Parameters	1st month (a)	3rd month (b)	6th month (c)	p-value	Difference
Female Sexual Function Index (FSFI)	3.24 ± 2.16	7.32 ± 8.71	7.45 ± 8.93	0.050*	b, c>a
Bristol female lower urinary tract symptoms ındex	11.82 ± 11.11	12.09 ± 12.11	12.00 ± 12.17	0.87	–
Urologic Document (UD)	4.64 ± 2.11	3.45 ± 3.08	3.45 ± 3.33	0.11	–
Note: *p<0.05; ANOVA					

Tab. 2. Comparison of FSFI scores between vulvar cancer group and control group at 1st, 3rd, and 6th months.

Group	1st month (Mean ± SD)	3rd month (Mean ± SD)	6th month (Mean ± SD)	Difference
Vulvar cancer	3.24 ± 2.16	7.32 ± 8.71	7.45 ± 8.93	b, c>a
Control group	3.33 ± 2.11	7.35 ± 4.31	7.50 ± 6.43	Control>Cancer

The literature shows that as lesion size and type of surgery increase, sexual life scores decrease [9]. In this study, the groups were considered homogeneous, and no differences were observed in additional factors. Similarly, a decrease in sexual scores was observed.

Although psychological symptoms were not examined separately in this study, some authors believe that psychological events in vulvar cancer are a public health problem [10]. Psychosocial support, body image modification, and mindfulness therapies are also considered necessary. Existing literature indicates that emotional distress and disturbances in body image are strongly associated with greater impairment in sexual functioning [11]. Vulvar cancer or vulvar intraepithelial neoplasia have an elevated risk of sexual dysfunction and dissatisfaction in their partner relationships. Factors such as age, overall health condition, history of depression or anxiety, and the extent of surgical excision of the vulvar malignancy have been shown to contribute to these outcomes. In addition, the proximity of the tumor to the clitoral line, the width of the surgical margins, and the use of radiation therapy are thought to influence postoperative sexual function significantly [12]. Patients receiving chemotherapy and radiotherapy were not included in some studies due to the presence of additional risk factors that could further complicate or exaggerate sexual dysfunction outcomes. In a study involving 15 women with a history of pelvic cancer participants reported substantial adverse effects on their sexual health and functioning. These effects were attributed to psychosocial and physical problems such as dyspareunia, vaginal dryness, atrophy-related bleeding, reduced libido, and body dysmorphia. Women diagnosed with rare vulvar or vaginal cancers described additional challenges stemming from vaginal stenosis, neurological symptoms, and structural changes related to their disease and treatment processes [13]. One patient developed a vulvar wound infection. No patient developed lymphedema. In one study, lymphedema and its stage were evaluated as a risk factor for adverse outcomes [14]. The absence of this condition relatively improves the quality of life.

CONCLUSION

This study demonstrates the importance of sexual and urogynecological function in patients with vulvar cancer in terms of its relevance to treatment and the assessment of quality of life. However, demonstrating partial improvement over time is also valuable. It reflects the need for holistic approaches, particularly those aimed at supporting sexual function in patients with vulvar cancer. Confirmation of these results with larger sample sizes and multicenter studies will guide clinical practice by deepening the individualized approach.

AUTHOR CONTRIBUTION

Belma Gozde Ozdemir: Conceptualization, methodology, writing – original draft preparation, review and editing.

Merve Nur Taspinar: Data collection, formal analysis.

Ipek Munteha Erdemli: Literature review, visualization

Ahmet Bilgi: Data curation, validation.

Cetin Celik: Supervision, final approval of the manuscript.

CONFLICT OF INTEREST

No conflict of interest.

ETHICAL APPROVAL

There is a academic and ethical approval code and an application number for the Selçuk University Faculty of Medicine Ethics Committee.

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