

Vulva Kanserinin Cerrahi Tedavisi ve Rekonstrüksiyonu – Olgu Serileri

Surgical Treatment and Reconstruction of Vulvar Carcinoma - Case Series

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ÖZET

Giriş: Bu çalışmada Kartal Dr. Lütfi Kırdar Şehir Hastanesi Jinekolojik Onkoloji bölümünde Ocak 2016-Ocak 2019 tarihleri arasında erken evre vulva kanseri nedeniyle tedavi edilen hastaların incelenmesi amaçlandı. Bu vaka serisi, erken evre vulvar kanserli hastaların risk faktörlerini ve cerrahi sonuçlarını inceledi. Çalışmaya ortalama yaşları 56 olan vulvar kanserli toplam üç hasta dahil edildi. Tüm olgular evre IB vulva kanseri nedeniyle ameliyat edildi. Tüm hastalara modifiye radikal vulvektomi, bilateral inguinofemoral lenf nodu diseksiyonu ve fasiokutan flep rekonstrüksiyonu uygulandı. Hastaların hiçbir adjuvan tedavi almamıştı. Flep nekrozu yoktu. Ayrıca takip sürecinde nüks veya majör postoperatif komplikasyon görülmedi.

Anahtar Kelimeler: Vulva kanseri, Inguinofemoral lenfadenektomi, Modifiye radikal vulvektomi

ABSTRACT

Background: This study aimed to investigate patients treated for early-stage vulvar cancer between January 2016 and January 2019 in the Department of Gynecologic Oncology at the Kartal Dr. Lütfi Kırdar City Hospital. This case series examined the risk factors and surgical outcomes of patients with early-stage vulvar cancer. A total of three patients with vulvar cancer with a mean age of 56 years were included in the study. All cases underwent surgery for stage IB vulvar cancer. All patients were treated with modified radical vulvectomy with bilateral inguinofemoral lymph node dissection and fasciocutaneous flap reconstruction. None of the patients received adjuvant therapy. There was no flap necrosis. In addition, no recurrence or major postoperative complication was observed during the follow-up period.

Keywords: Vulvar cancer, Inguinofemoral lymphadenectomy, Modified radical vulvectomy

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Vulvar cancer is the 4th common gynecological malignancy and accounts for 3-5% of female genital tract malignancies (1). The most common type of vulvar cancer is squamous cell carcinoma (95%), followed by melanoma, sarcoma, and basal cell carcinoma (2). Vulvar squamous cell carcinoma (SCC) is classified into three histological types: basaloid, warty, and keratinized type. Keratinizing SCC is the most common type and usually occurs in the postmenopausal period, whereas other types occur less frequently and in the premenopausal period (3). Vulvar SCC arise in the labia majora and minora (60%), clitoris (15%), and perineum (10%) (4). Treatment is based on the stage of the disease and consists of surgery, radiotherapy and chemotherapy (5). Some tumor-related characteristics, such as tumor size, location, depth of invasion, degree of differentiation, and presence of perineural invasion affect the prognosis (6).

There is limited published data on the management, oncologic outcome, and long-term survival of vulvar cancer, one of the rare types of female genital cancer. Therefore, we sought to examine the risk factors, clinical, and oncologic outcomes, and treatment methods of patients with vulvar cancer treated in our clinic over a 3-year period.

Method

A total of three patients with early-stage vulvar cancer treated in the Gynecology Oncology Department at the Kartal Dr.Lütfi Kırdar City Hospital between January 2016 and January 2019 were included.

Abstracted data including sociodemographic characteristics, clinical features, histopathological results, and surgical and oncological outcomes were analyzed retrospectively. Data were obtained from the hospital's

electronic medical records. Ethical approval for this study was obtained from Research Ethics Committee (Approval number: 2022/514/228/32, 30.06.2022). Written and verbal consent was taken from all patients.

Results

A total of three multiparous postmenopausal women with the mean age of 56 years were included in the study. Two of the three patients had diabetes mellitus. All patients presented with vulvar pruritus, the duration of which ranged between 3 months to 2 years. On physical examination, lesions were found on the labia majora ranging in size from 2 to 4 cm with no palpable inguofemoral lymph node. All cases underwent comprehensive work-up, including PET CT. Patients were scheduled for surgical treatment according to the result of this prior work-up. The baseline characteristics are summarized in Table 1.

All patients underwent modified radical vulvectomy with a 2 cm safety margin, bilateral inguofemoral lymph node dissection, and fasciocutaneous reconstruction. Since the defect originates from the skin and subcutaneous tissue, a muscle-containing flap, such as the gracilis flap was not considered instead, a fasciocutaneous flap containing the internal pudendal artery was preferred.

The final histopathology revealed vulvar keratinizing SCC, leading to pathological staging of stage IB. The depth of tumor invasion ranged from 0.5 to 0.9 cm. Lymphovascular space invasion, positive margins, or positive lymph nodes were not seen in any of the cases. No patient received adjuvant therapy. Preoperative lesions and perioperative and post-reconstruction photographs are shown in Figure 1.

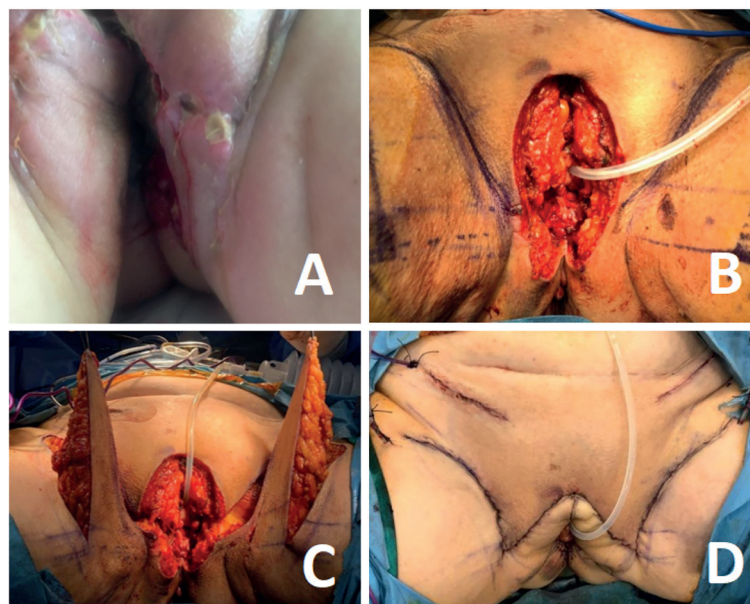


Figure 1: Preoperative lesion (A), Radikal vulvectomy (B), Fascia cutaneous flap (C) and post-reconstruction photograph (D) are shown.

Table 1 • Surgical, pathological and follow-up features of vulvar cancer cases

Parameters	Case 1	Case 2	Case 3
Age	50	53	65
Symptoms	Itching	Itching, ulcerated lesion	Itching, pain, redness
Location	Right labium majus	Bilateral labium majus	Bilateral labium majus
High risk factors	None	None	None
Tumor diameter	2*2cm	1*2.5cm	3*2cm
Tumor Depth	0.8 cm	0.5 cm	0.9 cm
Lymph node involvement	None	None	None
Surgery procedure	MRV+BIFLN +Flap reconstruction	MRV+BIFLN+Flap reconstruction	MRV+BIFLN+ Flap reconstruction
Reconstruction Flap	with internal PA	with internal PA	with internal PA
FIGO classification	IB	IB	IB
Postoperative Complication	Seroma accumulation	Seroma accumulation	Seroma accumulation
Adjuvant therapy	None	None	None
Follow-up time	36 months	36 months	36 months

MRV+BIFLN; Modified radical vulvectomy + bilateral inguinofemoral lymph node dissection; PA; Pudental Artery

In the postoperative follow-up, all patients developed seroma in the inguinal region, which was treated with compression and seroma aspiration. No flap necrosis was observed. No recurrence or mortality was reported at 3 years of follow-up.

Discussion

Vulvar cancer accounts for 5% of gynecological malignancies (7). Patients with vulvar cancer may be asymptomatic or present with symptoms of itching, ulceration, or pain. Risk factors include advanced age, HPV infection, smoking, inflammatory conditions of the vulva, and immune system deficiency (8). Most vulvar cancer occurs in the labium majora but can be seen in other sites, such as the labium minus, clitoris, and perineum (4). Squamous cell cancer is the most common histologic type of vulva cancer (2). It is commonly diagnosed at the early stages of the disease (9). The 5-year survival rates for vulvar cancer are 86%, 53%, and 19% in stage I/II, stage III/IVA, and IVB, respectively (10). In the present study, all patients were admitted to the hospital with the complaint of itching. Lesions found on the labia majora ranging in size from 2 to 4 cm with no palpable lymph node. Consequently, all three underwent radical surgical resection of the tumor and groin dissection with the reconstruction of the skin defect. The final pathology revealed keratinizing SCC Stage 1B according to the FIGO staging system.

Prognostic factors were tumor size, depth of invasion, lymph node positivity, perineural invasion, and

advanced age. It is well-established that vulvar SCC greater than 2 cm in diameter was more likely to recur or spread than smaller than 2 cm. In addition, an invasion depth of more than 6 mm increases the risk of lymph node involvement, which is one of the most important prognostic factors (11). While 5-year survival was 70-90% in lymph node-negative patients, it was 25-41% in lymph node-positive patients. Adjuvant radiotherapy was the recommended treatment option in patients with tumor size larger than 4 cm, lymphovascular invasion, lymph node positivity, and positive surgical margins (11). In our case series, patients had lesions measuring 2-4 cm with an invasion depth of 5-9 mm. Thus, modified radical surgical excision and inguinofemoral lymphadenectomy were performed.

According to FIGO guidelines, surgical excision of lesion and groin lymph node dissection are the standard therapy for patients with FIGO stage 1B vulvar cancer (11). The most important factor affecting survival in early-stage vulvar cancer was comprehensive inguinofemoral lymphadenectomy (12). Adjuvant radiotherapy and chemotherapy are indicated in patients with high-risk factors, such as lymphovascular space invasion, deep invasion, tumor size over 4 cm, and close or positive margins (6). In the present study, none of the patients had high-risk factors. Thus, no adjuvant treatment was given in any case.

After vulvar cancer surgeries, early postoperative complications, including urinary tract infection, seroma, deep vein thrombosis, pulmonary embolism, and

late complications such as chronic lymphedema may occur (13). In our cases, no complications were observed in the 3-year follow-up, except for the accumulation of seroma, which was resolved by aspiration and compression in the early postoperative period.

Flap reconstruction provides better functional and cosmetic outcomes in patients with vulvar cancer undergoing radical surgical excision (14). Since all cases in this study were in the early-stage of the disease (stage IB), they were treated with modified radical vulvectomy with bilateral inguofemoral lymph node dissection and reconstruction of the flap. There was no flap necrosis, recurrence, or major postoperative complication in our case series. We believe that an oncoplastic procedure, namely fasciocutaneous flap reconstruction, is an acceptable treatment for patients with early-stage vulvar cancers.

The present study has some limitations. First, this was a retrospective, single-center study with a small number of patients. However, the rarity of vulvar cancer makes it difficult to achieve a larger sample size. As anticipated, short-term follow-up could be explained by the aggressiveness of the tumor. Future research with a larger sample size needed to be carried out to establish a greater degree of accuracy on this issue.

This study has identified the risk factors, clinical characteristics, and surgical and oncologic outcomes of patients with early-stage vulvar cancer. The major finding was that modified radical vulvectomy with bilateral inguofemoral lymph node dissection and oncoplastic procedure was the preferred treatment modality for early-stage vulvar cancer. Oncoplastic surgery may be a procedure of choice for early-stage vulvar cancer patients in terms of cosmetic and functional results.

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