

PREVALENCE OF GROIN LYMPH NODES METASTASES IN CLINICALLY STAGES IB AND II CANCER OF THE VULVA

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Abstract. Sixteen patients with IB-II FIGO stages vulvar cancer with no clinically and imagistic evidence of nodes metastases were operated during a 34 months period (January 2011-October 2013). The surgical procedures consisted in radical vulvectomy plus uni- (2 patients) or bilateral (14 patients) inguino-femoral lymphadenectomy (depending on the primary lesion localization). The final pathological result was squamous carcinoma in 15 patients and carcinosarcoma in one. The prevalence of positive lymph nodes was 43.7%, (between 1 and 5 positive nodes per groin). The median number of harvested lymph nodes was 12.6 per groin (between 4 and 27). Ten patients developed some wound complications (infections, dehiscence, lymphocele etc.), but all were solved. At the present time, 14 patients are alive and with no evidence of disease, one died of disease and one had a groin relapse and followed radiotherapy. The prevalence of groin metastases in stages IB-II vulvar cancer is high. A thorough inguino-femoral dissection seems necessary, despite the high incidence of wound complications.

INTRODUCTION

Vulvar cancer is a rare disease with an incidence of 2 per 100,000 women per year (1). It is the fourth most common gynecologic malignancy in USA (Milam et al 2012). The most frequent histologic subtype is squamous cell cancer with a frequency of 70% (Hacker 2004). A clinical staging system was used until 1988. The recognition of the importance of pathologic lymph node status for survival and the inability to predict lymph node status accurately by physical examination urged the International Federation of Gynecology and Obstetrics (FIGO) in 1989 and later in 2009 to convert the staging system into a surgical pathologic system (Pecorelli 2009, Mutch 2009). Based on this staging system, approximately 40% of patients have stage III/IV disease at first presentation (Hopkins et al 1992, Fons et al 2009). The presence of nodal involvement was introduced into stage III or IV. Stage III entails tumors of any size with positive inguino-femoral lymph nodes. Stage IVA entails both patients with tumor which invades other regional structures (2/3 upper urethra, 2/3 upper vagina), bladder mucosa, rectal mucosa, or fixed to pelvic bone, or with fixed or ulcerated inguino-femoral lymph nodes. Stage IVB includes any distant metastasis including pelvic lymph nodes (Pecorelli 2009, Mutch 2009). The aim of the current study was, first, to analyze the prevalence of inguino-femoral lymph nodes metastases in clinically early stages of vulva cancer. Second was to evaluate the morbidity of groin and vulva surgery and to determine the benefit of the radical surgery in the “sentinel node concept” era for this type of cancer.

Objective. We analyzed the prevalence of inguino-femoral lymph nodes metastases in clinically early stages of vulvar cancer.

MATERIAL AND METHODS

The databases of the First Clinic of Obstetrics and Gynecology, University of Medicine and Pharmacy Targu-Mures, Romania, were reviewed retrospectively.

Sixteen patients with IB-II FIGO stages vulva cancer with no clinical or imagistic (ultrasound or computed-tomography scan) evidence of nodes metastases were treated in our clinic during a 34 months period (January 2011-October 2013). The surgical procedures consisted in radical vulvectomy plus uni- (2 patients) or bilateral (14 patients) inguino-femoral lymphadenectomy (depending on the primary lesion localization), by the well-known “three incisions technique”. In 2 patients we performed also a distal urethral resection (10-15 mm), in 7 a partial colectomy and in one a unilateral extraperitoneal pelvic lymphadenectomy. Because of a large perineal defect, a “V-flap” unilateral (in one patient) or bilateral (in 3) vulva reconstruction was performed.

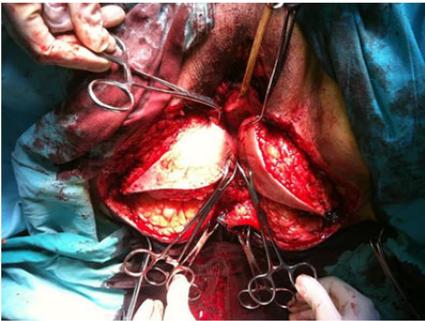


Fig. 1. Bilateral "V-flap" vulva reconstruction. Intraoperative aspect.



Fig. 2. Bilateral "V-flap" vulva reconstruction. Postoperative aspect.

RESULTS

Patients' age was between 42 and 74 years old (median 62.3).

The final pathological result was squamous carcinoma in 15 patients and carcinosarcoma in one. The median number of harvested lymph nodes was 12.6 per groin (between 4 and 27). Positive lymph nodes were found in 7 out of 16 patients (43.7%). The number of positive nodes varied between 1 and 5 per groin, and the metastases were present bilaterally in 3 patients and unilaterally in 4. These 7 patients were up-staged because of positive inguino-femoral lymph nodes as follows: 5 in stage IIIA, one in stage IIIB and one in stage IIIC because of extracapsular spread. All these patients received adjuvant pelvic radiotherapy.

Ten (62.5%) patients developed some inguinal and/or perineal wound complications (infections, dehiscence, lymphocele etc.), which necessitate re-suturing, but all were solved. The hospitalization was quite long for all patients; they were discharged home after 11 to 47 days (median 22). At the present time, 14 patients are alive and with no evidence of disease, but the follow-up period is short; one died of disease and one had a groin relapse and followed salvage radiochemotherapy, but her condition is critical.

DISCUSSION

The most important prognostic factor in vulvar cancer is the status of the groin lymph nodes (1). Patients with negative nodes have a 5-year survival of about 90%, while for patients with positive nodes, survival falls significantly to 29–60% (Hacker 2004, Hyde et al 2002, Van der Valden et al 1995, Van der Valden et al 1996).

Raspagliesi (2006) considered that lymph node status and nodal features, such as extracapsular spread and nodal replacement rate, were shown to be independent prognostic factors. These factors should be considered to identify high risk patients and in planning further adjuvant therapy.

Similar conclusions resulted from Fons et al. study (Fons et al 2009), who showed that bilateral presence of lymph node metastases is not an independent factor for survival when the number of lymph node metastases is taken into account. The presence of extracapsular growth is the single, poorest prognostic marker of lymph node metastases.

Within the group of patients with positive nodes, the number of involved nodes, the diameter of the largest metastatic deposit, and the presence or absence of extracapsular spread are all of

prognostic significance. Patients with palpably enlarged, positive groin nodes are a particularly high-risk group, because of the large volume of metastatic carcinoma present, and the greater degree of extracapsular nodal involvement. Such patients are also at increased risk of having positive pelvic nodes (Hyde et al 2007).

Complete inguinal-femoral lymphadenectomy is associated with a high incidence of lymphocele formation and wound complications. Also, a frequent late complication is lymphedema, and its incidence is further increased with the addition of postoperative groin irradiation. In our study, in 16 patients with IB-II FIGO stages vulva cancer with no clinical or imagistic evidence of nodes metastases, we found a high incidence of groin lymph nodes metastases (43.7%). These 7 patients were up-staged and received adjuvant radiotherapy. Regarding the important prognostic value of positive lymph nodes for staging and future therapies, we consider mandatory a thorough groin dissection, including both inguinal and femoral lymph channels. For these tumours larger than 2 cm, the sentinel node concept is not applicable.

CONCLUSIONS

The prevalence of groin metastases in stages IB-II vulvar cancer is high. A thorough inguino-femoral dissection seems necessary, despite the high incidence of wound complications.

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