

CASE REPORT

Vulvar Cancer with Bilateral Axillary Lymph Node Metastasis

P. S. Hasdemir¹, F. Aras², U. Solmaz³ & T. Guvenal¹

¹Celal Bayar University School of Medicine, Department of Obstetrics & Gynecology, Manisa, Turkey, ²Celal Bayar University School of Medicine, Department of Nuclear Medicine, Manisa, Turkey and ³Tepecik Education and Research Hospital, Department of Gynecologic Oncology, Izmir, Turkey

DOI: 10.3109/01443615.2015.1049251

Correspondence: Pinar Solmaz Hasdemir, Celal Bayar University School of Medicine, Department of Obstetrics & Gynecology, Manisa 45000, Turkey. Tel: +(90) 236 444 42 28. Fax: +(90) 236 233 80 40. E-mail: solmazildiz@yahoo.com

Case Report

A 70-year-old woman presented with the complaint of vulvar itching. Physical examination revealed an ulcerative lesion (2.5 cm in diameter) in the left labium minus with widely spread white areas most consistent with lichen sclerosus. She was virgin with no history of sexual relationship and has been postmenopausal for 21 years with no other complaints. Pathological examination in the biopsy specimen was consistent with moderately differentiated squamous cell carcinoma of the vulva and lichen sclerosus. She underwent left-sided vulvectomy with bilateral superficial lymph node dissection (LND). The size of the tumour was 2.5 × 2.5 × 0.5 cm and the depth of invasion of the tumour was 0.41 cm. No tumoural tissue was seen in peripheral or vaginal surgical margins. Five lymph nodes from the left and three lymph nodes from the right inguinal region did not show any signs of metastasis.

Because of the early stage (Stage 1B) of the cancer, adjuvant radiotherapy was not implemented. Follow-up examinations at every three months were unremarkable until she presented with extensive vulvar skin lesions all around the vulva at the first year of examination. Biopsies from the lesions revealed squamous cell carcinoma with necrosis and keratinisation. Whole-body positron emission tomography/computerised tomography (PET/CT) revealed pathologic uptake in bilateral inguinal and iliac lymph nodes (SUV max = 11,2), multiple vulvar subcutaneous metastatic nodules (SUV max = 6,3), vulvar lesion invaded to urethra (SUV max = 22), bilateral axillary multiple lymph nodes (max: 22*40 mm in size) (SUV max = 17,1), hypodense nodule in thyroid right lobe (SUV max = 7,3) and physiologic uptake in intra-abdominal, mediastinal and pulmonary areas (Figure 1). Thyroid function tests were normal and tru-cut biopsy from the thyroid nodule was benign. Mammographic examination was normal. Tru-cut biopsy from the axillary lymph nodes revealed grade-2 squamous cell carcinoma. Radiochemotherapy was planned for further treatment.

Discussion

Vulvar cancers account for 3–5% of all gynaecologic malignancies and 90% of them are squamous cell carcinomas (Sznurkowski et al. 2013; Schorge et al. 2008). Vulvar cancer typically metastasises by two common mechanisms; embolisation through the lymphatic system to the regional lymph nodes, and by direct accession into surrounding tissue and organs. Haematogenous spread to the distal sites is quite rare (8–12%) and metastases were documented to the lung, breast, extra-genital skin, bone, intra-abdominal sites,

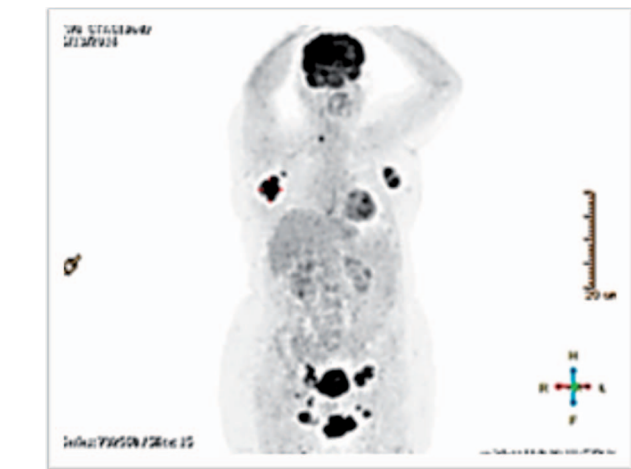


Figure 1. The PET/CT image of the bilateral axillary lymph node metastasis of vulvar cancer.

heart, muscle and the central nervous system (Tyring, 2003; Vicus et al. 2006). To the best of our knowledge, this is the first case in English literature with vulvar squamous cell carcinoma with bilateral axillary lymph node metastasis.

Lymphatic vessels of the vulva drain primarily into the superficial inguinal lymph nodes and then pelvic nodes. Lymphatic drainage travels in a stepwise fashion from the superficial to the deep inguinal nodes and then to pelvic lymph nodes. Any spread beyond the inguinal nodes is considered distant metastasis (Tyring, 2003).

The traditional treatment for vulvar cancer includes removal of the superficial inguinal and deep femoral nodes. This has been replaced by groin dissection including superficial inguinal nodes and femoral nodes just beneath the fascia lata in order to minimise the operative time and morbidity (Bell et al. 2000). The number of dissected lymph nodes ranged from 5 to 36 (median 14) in this technique. We removed only superficial lymph nodes (n = 8) in our case based on the histology of the tumour, small lesion size (< 4 cm) and lack of inguinofemoral lymph node involvement by preoperative CT scan. LND was performed bilaterally because of the proximity of the lesion to midline (McCann, et al. 2014).

Ipsilateral tumours can be defined as lesions that are present further than 1 cm from the midline (Tyring, 2003). Infrequently, aberrant channels course directly from the tumour to ipsilateral deep inguinal or pelvic lymph nodes. These anatomic variants ultimately may explain unanticipated cancer recurrence following lymph node dissection in which no nodal metastasis was found (Schorge et al. 2008). Our case may be an example for this mechanism of spread.

Regular systematic physical examinations and imaging modalities in patients with vulvar cancer are imperative because of the possibility of regional- or distant-site metastases.

Declaration of interest: The authors declare that there is no conflict of interest.

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