Advanced Squamous Cell Carcinoma of the Vulva in a 54 Year Old Postmenopausal Woman in the South- South Region of Nigeria- A Case Report

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Abstract
A case of a 54-year old post-menopausal Nigeria woman presenting with a huge fungating advanced squamous cell carcinoma of the vulva that measured 22.1cm x 12.3cm x 5.5cm. She presented to the gynaecological clinic of our facility following a referral from a private clinic in Benin City. At presentation, she had a 3-year history of progressive vulva swelling which later became ulcerated associated with itching and pains. At surgery, there was a huge vulva mass measuring 22.1 x 12.3 x 5.5cm and weighed 6.4kg. She had a radical vulvectomy with inguinoscrotal lymphadenectomy and was discharged home on the seventh day post-operative day in a stable condition. Histopathological examination revealed advanced squamous cell carcinoma of the vulva. This is one very rare huge advanced vulva cancer in a postmenopausal women reported in our locality and managed in our institution.

Keywords: Postmenopausal, Huge, Advanced, squamous cell, Vulva, Cancer.
Introduction

Squamous cell carcinoma of the vulva is a rare gynaecological cancer that is associated with significant patient morbidity and mortality particularly for recurrent disease\(^1,2\)\.

The vulva is the global term used to describe all the structures that make up the female external genitalia. It has the following components; the mons pubis, labia majora, labia minora, clitoris, vestibular bulbs, vulva vestibule, Bartholin’s glands Skene’s glands, urethra, and vaginal opening\(^1\). Neoplasms can arise from any of this structure during a lifetime of the woman spanning from pre-pubertal to post-menopausal years and these neoplasms could either be benign or malignant\(^1\).

Advanced vulva cancer is rare in developed countries where modalities for early detection and treatment are available especially with the evolution of imaging system in recent time\(^1,2\). However, in the developing countries, vulva tumours may present as a huge mass especially when it is malignant due to late presentation and lack of routine screening exercise.

In the United States, vulva cancer makes up about 6% of cancers diagnosed in the female reproductive system and less than 1% of all cancers in women. Worldwide, an estimated 45,240 women were diagnosed with vulva cancer in 2020\(^3\). In a ten year review at the University of Benin Teaching Hospital (UBTH) Nigeria, an incidence of 3% were reported\(^4\). In the same paper, it was estimated that 1,670 deaths from this disease will occur in the United States in 2023. In 2020, an estimated 17,427 people worldwide died from vulva cancer\(^3\).

Squamous cell carcinoma is the most common histologic type of vulva cancer, comprising at least 75% of cases. Other histological subtypes include melanoma, basal cell carcinoma, Bartholin gland adenocarcinoma, sarcoma, and Paget disease\(^4,5\). Our patient presented with squamous cell carcinoma of the vulva of the advanced variety.

Advanced squamous cell carcinoma of the vulva is commonly diagnosed among the elderly postmenopausal women\(^6\). Though, vulva cancer itself is rare, this advanced and neglected type is not common these days hence our case report.

We report a 54 year old para 8+0 postmenopausal with advanced cancer of the vulva measuring 22.1 x 12.3 x 5.5cm and weighed 6.4kg. In view of her age, and
postmenopausal status, we performed a radical vulvectomy and inguinofemoral lymphadenectomy for the patient. Histopathological examination revealed an advanced squamous cell carcinoma of the vulva. Abdominopelvic CT-Scan done in the course of treatment revealed normal vaginal, cervix, uterus, fallopian tubes and ovaries.

**Case Report**

A 54-year-old para8+0 with 6 living children referred from a private clinic in Benin City with a 3-year history of progressive vulva swelling, vulva ulcer, itching and pain. She is hypertensive but not diabetic and 14 years postmenopausal. She smokes and drinks alcohol and married in polygamous family setting. Her sexual debut was at the age of 14 years.

At presentation, she complained of progressive vulva swelling of two (3) years duration that was associated with vulva itching, pain and ulcer with foul-smelling discharge and bleeding. There was anorexia and weight loss. Her urinary and bowel habits were normal.

**Figure 1**: Huge appearance of the advanced stage of the vulva cancer at the initial evaluation in our institution. Consent was obtained from the patient to share the photographs and other data which are presented in this report. Institutional ethics committee approval was secured before this report.
On physical examination, she was conscious, alert and well oriented, pale and febrile to touch (temperature of 37.5 degree centigrade). Her height was 163cm, weight 68 kilogram and body mass index = 26.5kg/m². Her pulse rate was 84 beats per minute and blood pressure was 150/100mmHg. Vulva examination shows a huge fungating mass, foul smelling discharge covering the vulva and bleeds on contact measuring 20.1 x11.3 x2.5cm. There was presence of bilateral inguino-femoral lymphadenopathy. The abdominal and chest findings were unremarkable.

Laboratory investigations revealed haemoglobin concentration of 6.0g/dl, total white blood cell count of 5,300 cells/mm³, neutrophil count of 56%, lymphocytes count of 59%, eosinophil count of 4%, serum electrolytes, urea, creatinine and liver function test were within normal ranges. Abdominopelvic ultrasound scan done does not reveal any significant finding while abdominopelvic CT-Scan with contrast showed bilateral enlarged inguinal lymph nodes, no sign of uterine-cervical mass or abdominal metastatic disease in particular. Chest X-ray revealed no significant radiographic features of active lung disease non features of metastasis.

She was counseled on the findings and she gave an informed consent for surgical management. She was optimized and transfused with three units of blood before the surgery. A radical vulvectomy with bilateral inguino-femoral lymphadenectomy using separate incisions were performed under regional anesthesia (spinal). The resected mass measured 22.1 x12.3 x5.5cm and weighed 6.4kg (fig,1). She had uneventful postoperative period and was subsequently discharged home on the 7th day post-operative day in a stable condition and scheduled for follow-up chemotherapy.

**Histopathological Report**

**Macroscopically**

Specimen consists of five irregular shaped firm tissue, two of which have overlying skin. The largest measures 12cm x 5.5cm x 1.5cm while the smallest measures 4.5cm x 1.8 x 1.2cm. Serial cut sections show cream surface.
Microscopically
Histologic sections of the vulva tissue including the deeper levels and recut show a papillomatous squamous epithelial lesion with acanthosis, hyperkeratosis, parakeratosis, koilocystic atypia, focal full thickness dysplasia with invasion and desmoplasia of the underlying superficial stroma, with lymphocytic inflammatory reaction.

Conclusion: VULVA MASS: INVASIVE SQUAMOUS CELL CARCINOMA ARISING FROM CONDYLOMA ACUMINTUM WITH HIGH GRADE DYSPLASIA.

Figure 2: Histopathological image of the Squamous Cell Carcinoma of Vulva
Follow-up
The surgical wound healed appropriately and the patient subsequently received six courses of chemotherapy and three sessions of radiotherapy and she has been follow-up since treatment without evidence of recurrent.

Discussion
Vulva cancers present in different ways depending on cell types and the structures involved. Squamous cell carcinoma of the vulva is the most common subtype. They account for 75-90% of all primary cancers of the vulva and majority of vulva cancer mortalities are from high grade lesions\textsuperscript{6}. Squamous cell carcinoma of the vulva is a malignant growth with high propensity for distant spread. Early spread is usually detected by sentinel node mapping and
other advanced imaging techniques following presentation. In the literatures, the report of huge advanced cancer of the vulva in postmenopausal women is relatively low or scanty in the developed nations of the world due to early detection with advanced imaging modalities\(^6\)\(^7\). In our region, finding of such huge cancer is not unusual especially when it is the malignant varieties. Commonly in our environment, ignorance, financial constraints, fear of cancer, lack of health care facility, fear of surgery and chemoradiation and superstitious traditional beliefs are reasons for late presentation in advanced stage of the disease\(^7\)\(^8\). Our patient presented very late due superstitious beliefs, fear of surgery and financial constraints.

The risk factors for acquiring vulva cancer include increasing age especially in postmenopausal period, exposure to human papiliomavirus (HPV) which is sexually transmitted as a result of multiple sexual partners. Others are smoking, weakened immune system and previous history of precancerous condition of the vulva. Presentation in the postmenopausal period is often of the malignant variant in our environment\(^9\). Our patient is a 54year old postmenopausal who presented with progressive vulva swelling which progresses to a huge fungating ulcer, pains, bleeding, anorexia and weight loss. Examination showed a huge vulva mass which bleeds on contact with foul smelling discharge and presence of inguinofemoral lymphadenopathy which are suggestive of malignancy. Abdominal CT-Scan confirmed bilateral inguinal lymph nodes enlargement.

Postmenopausal women in their fifth and sixth decades are at a higher risk of advanced cancer of the vulva and other genital malignancies as such this group of patients should be approach cautiously.\(^8\)\(^9\)\(^10\) Therefore after thorough investigations and work-up, our patient had a radical vulvectomy and inguinofemoral lymphadenectomy.

This index case does report a rare finding of advanced squamous cell carcinoma of the vulva of such dimensions in a postmenopausal woman in a low resource setting.
Conclusion

Advanced squamous cell carcinoma of the vulva is a rare gynaecological malignancy. This advanced type reported in our center is the most neglected ever recorded in our locality in recent time. Health education, advocacy and adequate infrastructures are needed our regions to prevent late presentation and mortality.

References