



## Case Report: Vaginal Carcinoma in an HIV-Positive Woman

Dr Moutam Shailaja<sup>1</sup>, Dr Varada Hasamnis<sup>2</sup>, Dr K.Vasudha Bhargavi<sup>3</sup>

<sup>1</sup> Post graduate, Dept of OBGYN, KIMS & RF; Amalapuram, Andhra Pradesh

<sup>2</sup> Assistant Professor, Dept of OBGYN, KIMS & RF; Amalapuram, Andhra Pradesh

<sup>3</sup> Assistant Professor, Dept of OBGYN, KIMS & RF; Amalapuram, Andhra Pradesh

### OPEN ACCESS

#### Corresponding Author

**Dr.K.Vasudha Bhargavi**

Assistant Professor, Dept of  
OBGYN, KIMS & RF;  
Amalapuram, Andhra  
Pradesh

Received:25-05-2025

Accepted:08-07-2025

Availableonline:19-08-2025



©Copyright: IJMPS Journal

### ABSTRACT

Vaginal carcinoma is a rare malignancy that typically occurs in older women, often associated with HPV infection. Its diagnosis in HIV-positive individuals presents unique challenges due to immune suppression, which allows persistent HPV infection to thrive and potentially lead to cancer. This report highlights the case of a 58-year-old HIV-positive woman diagnosed with advanced vaginal squamous cell carcinoma. The case emphasizes the need for careful consideration of both HIV treatment and oncologic care in the elderly population.

**Key words :** Vaginal carcinoma , HIV-positive , Squamous cell carcinoma (SCC), Human papilloma virus (HPV), Immunosuppression.

### INTRODUCTION :

Vaginal carcinoma is a rare form of gynecologic cancer, accounting for less than 2% of all cancers of the female reproductive system. The primary risk factor for its development is infection with high-risk human papilloma virus (HPV), specifically types 16 and 18, which are also associated with cervical, vulvar, and anal cancers. In HIV-positive patients, the likelihood of persistent HPV infection is increased due to the immunosuppressive effects of HIV, which results in a weakened immune system's inability to clear the virus.<sup>1</sup> This case report discusses an elderly HIV-positive woman diagnosed with advanced vaginal carcinoma, highlighting the clinical presentation, diagnostic challenges, and treatment approaches.

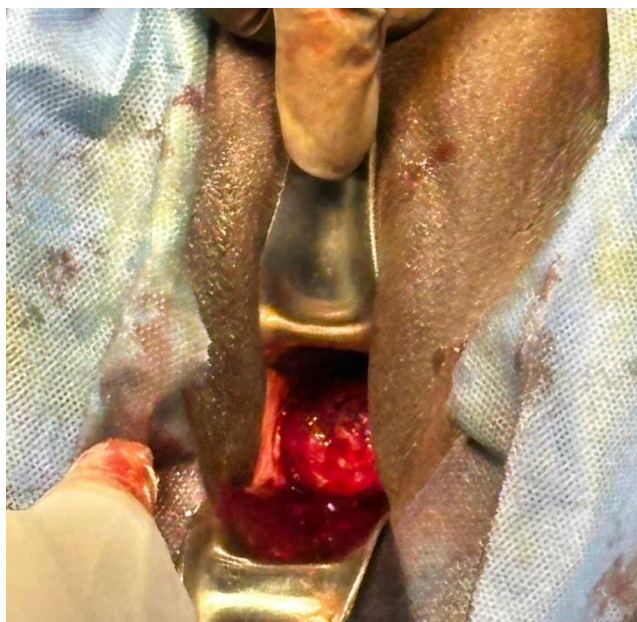
Primary squamous cell carcinoma of the vagina is rare, with only a few previous cases being reported. We present a case of a 58-year-old woman with primary squamous cell carcinoma of the vagina, which was discovered after 3 months of postmenopausal bleeding. Her imaging, diagnostic modality, Histopathology and treatment course are presented here. To our knowledge, this is only one such reported case in the literature and management underscores the need for multidisciplinary involvement.

Cancer found in the vagina is most likely metastatic disease. Primary vaginal carcinoma is rare and makes up less than 5 percent of all gynecologic malignancies<sup>1</sup>. This low incidence reflects the infrequency with which primary carcinoma arises in the vagina and the strict criteria for its diagnosis. According to International Federation of Gynecology and Obstetrics (FIGO) staging criteria, a vaginal lesion that involves adjacent organs such as the cervix or vulva, by convention, is deemed primary cervical or vulvar, respectively. The most common histologic type of primary vaginal cancer is squamous cell carcinoma, followed by adenocarcinoma.<sup>2</sup>

The diagnosis of primary carcinoma of the vagina requires that the cervix and vulva be intact and that no clinical evidence of other primary tumors exist. Approximately 90% of all vaginal tumors are squamous cell in type on histologic examination. Adenocarcinoma, which is much less common (2% to 4%), is seen primarily in younger women with in utero exposure to diethylstilbestrol.

#### **Case Presentation:**

**Patient Information:** A 58-year-old parous woman with a 13-year history of HIV presented to the gynecological clinic with a complaint of postmenopausal bleeding and foul-smelling discharge for the past three months. She reported a 5 kg unintentional weight loss over the last two months, along with increasing pelvic pain, and urge incontinence since 6 months. She was on a stable antiretroviral therapy (ART) regimen that included Tenofovir, Lamivudine, and Efavirenz. Her most recent CD4 count was 180 cells/mm<sup>3</sup>, with an undetectable viral load. She is a known case of hypothyroidism since 4 yrs on tablet THYRONORM 25mcg.



#### **Physical Examination:**

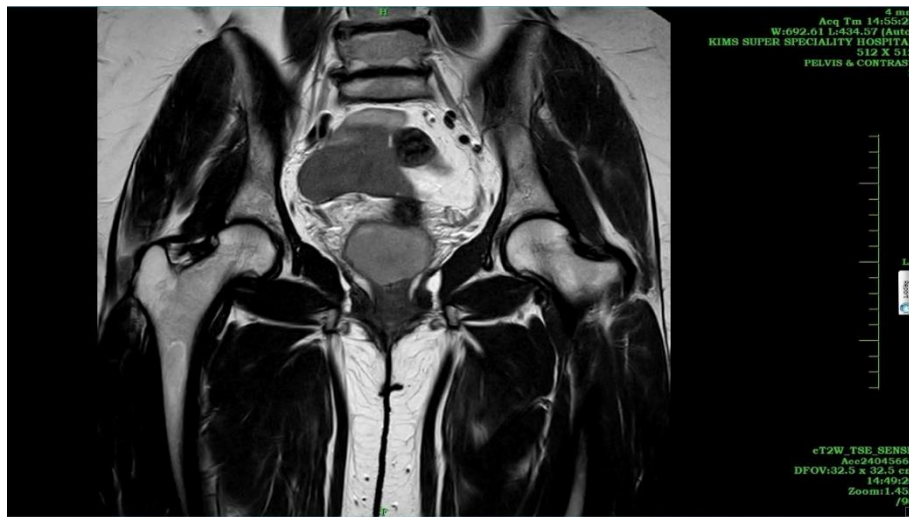
Upon pelvic examination, vulva appears normal, atrophic, sparse pubic hair, no visible mass, lesion, leukoplakia, dystrophy. On per vaginal examination a 3 x 3 cms, irregular, ulcerated mass was palpated in the posterior vaginal wall, external os visualised separately from the mass. It was fixed, hard, bleeds on touch and associated with mild tenderness. The cervical and vulva areas appeared normal, no visible lesions on rest of the vaginal walls. No significant inguinal lymphadenopathy was detected.

#### **Diagnostic Workup:**

##### **1 Imaging Studies:**

1 **Pelvic Ultrasound:** A large mass was noted in the posterior vaginal wall, and regional lymph nodes appeared enlarged.

1 **MRI of the Pelvis:** MRI confirmed the presence of an well defined peripherally enhancing lesion appearing hyperintense of T2/SPAIR and isointense on T1 and showing few foci of diffusion restriction involving the posterior wall of vagina and loss of Rectovaginal fatty interface at distal part of the lesion.- Likely Stage II vaginal carcinoma (FIGO Staging)



1 **<sup>18</sup>F-FDG Whole Body PET-CECT: RETROPERITONEUM AND PELVIS:** Mild FDG concentration in sub cm size paraaortic and retrocaval nodes with max SUV:4.0.intense FDG concentration in heterogenous enhancing soft tissue lesion noted in upper vagina measuring 5.3x2.1cms with max SUV:17.5 with involvement of bilateral parametrium, the lesion has ill defined fat planes with bladder and rectum. Mild FDG concentration in sub cm size left external iliac and bilateral inguinal nodes with max SUV:2.9, The rectum shows normal physiological tracer distribution. Urinary bladder is unremarkable and shows normal physiological trace distribution. Metabolically active soft tissue lesion in upper vagina

with extent as described above. Metabolically active pelvic and retroperitoneal nodes as described above. No evidence of distant metastases was found.

**Staging:** The tumor was classified as Stage II, according to the FIGO (International Federation of Gynecology and Obstetrics) staging system, due to extensive local invasion and regional lymph node involvement.

**2. Vaginal Biopsy:** A biopsy of the vaginal mass was performed under spinal anesthesia. Histopathological analysis confirmed the diagnosis of moderately differentiated squamous cell carcinoma.

**3.FNAC:** Left Cervical Node: Chronic Granulomatous Lymphadenitis, Bilateral axillary nodes: Reactive Lymphoid Hyperplasia

**4.HIV Monitoring:** The patient's CD4 count was 180 cells/mm<sup>3</sup>, and her HIV viral load was undetectable, indicating effective control of the virus despite moderate immunosuppression.

### Treatment Plan

Given the advanced stage of the disease and the patient's HIV-positive status, the treatment approach was multidisciplinary and tailored to her needs, focusing on both oncologic care and the preservation of immune function.

1 **Chemoradiotherapy:** Due to the advanced stage of the carcinoma, concurrent chemoradiotherapy was recommended. The patient was started on a cisplatin-based chemotherapy regimen, which is effective against squamous cell carcinomas. Radiation therapy was planned to target the primary tumor and affected lymph nodes.

2 **Antiretroviral Therapy (ART):** The patient continued ART throughout her cancer treatment to maintain viral suppression. The ART regimen was adjusted to minimize potential drug interactions with chemotherapy drugs.

3 **Supportive Care:** The patient was closely monitored for side effects of treatment, including neutropenia and anemia, which were managed with granulocyte colony-stimulating factor (G-CSF) and erythropoiesis-stimulating agents. She was also provided with palliative care and nutritional support to address the weight loss and maintain strength throughout the treatment.

4 **Psychosocial Support:** Given her advanced age and the emotional burden of her diagnosis, the patient was referred for counseling and social support, including discussions on advanced care planning.

### Discussion :

Vaginal carcinoma in HIV-positive individuals is often diagnosed at an advanced stage due to the immunosuppressive effects of HIV, which allows for persistent HPV infection.<sup>2</sup> In this case, the patient's longstanding HIV infection, combined with the persistence of high-risk HPV types, likely contributed to the development of squamous cell carcinoma of the vagina.

Older HIV-positive women, such as our patient, are at higher risk due to both immunosuppression and aging-related immune decline (immunosenescence), which compromises the ability to clear HPV infections. Additionally, the presence of cervical dysplasia in this patient likely increased her risk for vaginal carcinoma, as HPV infection can spread within the genital tract.

A randomized study cannot be undertaken on vaginal cancer due to the rarity of the disease. However, a large US National Cancer Data Base (NCDB) study showed that Concurrent chemotherapy and radiation therapy (CCRT) was an independent prognostic factor for better overall survival (56 months for CCRT vs 41 months for radiation therapy).<sup>5</sup> The most common regimen that is used is weekly cisplatin at 40 mg/m<sup>2</sup>; however, other drugs and combinations have also shown benefit.

In this case, chemoradiotherapy proved to be an effective treatment option, improving symptoms and reducing the tumor size. ART was maintained throughout the treatment, ensuring the patient's HIV was well-controlled and minimizing the risk of opportunistic infections. Multidisciplinary care, involving oncologists, gynecologists, and HIV specialists, is critical for successful management of such complex cases.<sup>3</sup>

### Conclusion :

Vaginal carcinoma in HIV-positive, elderly patients presents unique challenges due to the interplay of immunosuppression and HPV-related carcinogenesis. This case emphasizes the importance of early detection, timely intervention, and a coordinated approach to managing both cancer and HIV in older adults. While the prognosis for advanced vaginal carcinoma in elderly HIV-positive patients can be poor, with appropriate treatment, some patients can achieve long-term remission or stable disease.

### Références:

1 Adams TS, Rogers LJ, Cuello MA. Cancer of the vagina: 2021 update. *Int J Gynaecol Obstet.* 2021 Oct;155 Suppl 1(Suppl 1):19-27. doi: 10.1002/ijgo.13867. PMID: 34669198; PMCID: PMC9298013.

1. Shiels MS, Engels EA, Lacey JV, et al. Cancer risk in HIV-infected people in the United States. *J Natl Cancer Inst.* 2011;103(9):734-748. doi:10.1093/jnci/djr076.

1. FIGO Committee on Gynecologic Oncology. Current FIGO staging for cancer of the vagina, fallopian tube, ovary, and gestational trophoblastic neoplasia. *Int J Gynaecol Obstet* (2009) 105:3–4. doi: 10.1016/j.ijgo.2008.12.015
2. Yang J, Delara R, Magrina J, Magtibay P, Langstraat C, Dinh T, Karlin N, Vora SA, Butler K. Management and outcomes of primary vaginal Cancer. *Gynecol Oncol.* 2020 Nov;159(2):456-463. doi: 10.1016/j.ygyno.2020.08.036. Epub 2020 Sep 22. PMID: 32972784
3. Rajagopalan MS, Xu KM, Lin JF, et al. Adoption and impact of concurrent chemoradiation therapy for vaginal cancer: a national cancer data base (NCDB) study. *Gynecol Oncol* 2014;135:495–502. 10.1016/j.ygyno.2014.09.018 [[DOI](#)] [[PubMed](#)] [[Google Scholar](#)]
4. Lamoreaux WT, Grigsby PW, Dehdashti F, et al. FDG-PET evaluation of vaginal carcinoma. *Int J Radiat Oncol Biol Phys* 2005;62:733–7. 10.1016/j.ijrobp.2004.12.011 [[DOI](#)] [[PubMed](#)] [[Google Scholar](#)]