



Case Report

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Spontaneous Penile Amputation in a HIV Patient: Case Presentation

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Abstract

Penile tumor is the rarest urogenital tumor in males (1%). Around 95% of penile tumors are squamous cell carcinomas. We report a case of penile squamous cell carcinoma in a 69-year-old male who presented spontaneous penile amputation with a necrotic stump. The patient was tested positive for HIV1. He benefitted from a total penectomy with a supra-pubic cystostomy (SPC) and antiretroviral therapy. The suprapubic catheter is changed monthly while awaiting perineal urethrostomy.

Keywords: Penile cancer, Squamous cell carcinoma, Spontaneous penile amputation, Total penectomy.

INTRODUCTION

Malignant tumors of the penis are rare and their incidence varies across different regions of the world. It affects 1/100,000 men in the European Union and the United States but is more common in certain regions, accounting for 1–2% of male tumors in South America, Southeast Asia and some parts of Africa. The incidence of penile cancer increases with age, peaking at around 60 years [1]. Squamous cell carcinoma represents the most common histological type (95%) [2,3]. Human immunodeficiency virus (HIV) infection is believed to play a significant role in the epidemiology of this condition [4]. The standard treatment for this rare tumor is complete surgical excision whenever possible. For patients with metastatic disease, management is not standardized and radiotherapy or chemotherapy is often considered [5].

CASE REPORT

A 69-year-old patient with no significant medical history, employed as a driver, presented to the Surgery Department of Saint Jean de Dieu Hospital in Tanguiéta with the spontaneous loss of a portion of his penis due to a longstanding wound that was progressive in size for approximately three years without improvement despite the use of traditional treatment. There were no lower urinary tract symptoms associated and no history of circumcision was noted.

Physical examination revealed a proliferative, necrotic and malodorous wound on the penis (Figure 1). The patient had lost the glans and a significant part of the shaft. Non palpable inguinal lymph nodes. The tumor was classified as T3N0Mx. The patient had a World Health Organization performance score of 0 out of 4. He weighed 48 kg, had a height of 1.63m and a body mass index of 18. Suspicion of penile cancer was raised. Additionally, the patient had a positive HIV-1 serology, which was incidentally discovered during his consultation. His hemoglobin level was 10.6 g/dl, blood group was A+ and creatinine level was 12 mg/l. Chest X-ray, abdominal-pelvic ultrasound and thoraco-abdomino-pelvic computed tomography were not done due to financial constraints. The patient underwent total penectomy and cystostomy (Figure 2) under spinal anesthesia. Perineal urethrostomy was recommended but the patient declined. He was initiated on antiretroviral therapy following counseling by the social service team.

The postoperative course was uneventful. Histopathological examination of the surgical specimen revealed a moderately differentiated infiltrating keratinizing squamous cell carcinoma in contact with the surgical margins. The cystostomy tube was to be changed monthly while awaiting perineal urethrostomy.

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Figure 1: Necrotic lesion of the penile stump

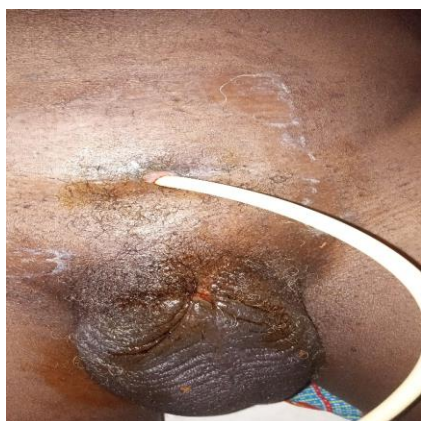


Figure 2: Total penectomy and cystostomy

DISCUSSION

Penile cancer is rare, with an incidence of approximately 1 case per 100,000 men in Europe and North American countries though it is higher in some parts of Africa, South America and Asia [1]. Two previous studies conducted at the urology department of the University Hospital of Brazzaville reported three cases observed over 17 years between 1990 and 2007 [6,7]. Our patient was 69 years old, confirming that penile cancer is predominantly a disease of older individuals and rarely found in the younger ones [8,9]. Gueye et al. in Senegal found an average age of over 50 years [10]. The main risk factors include the absence of childhood circumcision (circumcision in adulthood does not provide protection), chronic inflammation of the glans (related to phimosis), risky sexual practices (multiple partners), photochemotherapy with UVA-psoralen, presence of condylomas and smoking [11]. Like other carcinomas of the anogenital region, penile cancers are associated with human papillomavirus (HPV) infection. Given the rarity of these cancers, there is currently no recommendation for HPV vaccination for boys in France [3,4].

The age of diagnosis in our study (69 years) is consistent with the literature, which indicates a peak incidence after 50 years [12,13]. The taboo surrounding sexuality and genital organs in our region contributes to delayed diagnosis. Many patients consider these lesions as mysterious diseases linked to curses and initially resort to traditional medicine [13].

Numerous etiological factors are implicated in the occurrence of penile cancer [14], including the absence of childhood circumcision (circumcision in adulthood does not provide protection), chronic inflammation of the glans (related to phimosis), risky sexual practices (multiple partners), photochemotherapy with UVA-psoralen, the presence of condylomas, and smoking [11]. Intraepithelial neoplasia (IN) induced by HPV and non-HPV-induced IN [15,16] are generally the two most commonly found precancerous nosological forms. HPV infection

(HPV-16 and HPV-18) is believed to play a role in 50% of penile cancer cases [17]. The patient's history of HPV infection or serological testing was not possible. Among other risk factors, phimosis leads to maceration and poor preputial hygiene, contributing to penile cancer. Some studies demonstrate that neonatal circumcision has a preventive effect, but the same is not true for circumcision in adulthood [18]. Wan et al. reported 17 cases of penile cancer in patients circumcised late, confirming the hypothesis that circumcision is protective when performed in the neonatal period and provides better local hygiene conditions for patients [19]. Some studies have reported an association between HIV infection and penile cancer [19].

One of the clinical peculiarities of penile cancer in our context is the delayed diagnosis. This delay in seeking medical attention is often related to the localization of the tumor in the genital area, which remains concealed for a long time due to cultural taboos or the belief in mysterious diseases related to curses, leading patients to initially resort to traditional medicine. This was the case with our patient, who had been carrying this tumor for several years and managing with traditional medicines.

The diagnosis of penile cancer relies on histological examination of the biopsy or excised tumor specimen [20].

Partial or total amputation constitutes the treatment for penile cancer, which is often emotionally challenging for patients. Early-stage penile cancer cases can be treated with brachytherapy [21]. In our study, the patient agreed to penile amputation but other African patients may refuse [8].

Radical surgical excision, although often mutilating, remains the best treatment for localized stages of squamous cell carcinoma with a 6% risk of local recurrence [22]. It is essential to opt for the least invasive surgery possible. In addition to topical treatments, circumcision should be systematically performed [22].

Lymph node involvement is the primary prognostic factor and lymph node dissection should be performed whenever possible during the same surgical procedure as the primary tumor. Regular follow-up with self-examination of the penis and inguinal lymph nodes is recommended, in addition to postoperative medical visits every 3 months for the first two years, then every 6 months for up to five years [1].

CONCLUSION

Spontaneous penile amputation is a rare presentation of penile cancer. Early diagnosis and appropriate management are crucial. This case emphasizes the need for HIV screening in patient with penile cancer, as HIV infection may impact the course of the disease. Further research is needed to better understand penile cancer progression in patients with HIV from those tested negative for HIV.

Conflict of Interest

The authors declare no conflicts of interest.

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