

Penectomy for self-neglected opportunistic carcinoma: a large primary urogenital squamous cell carcinoma as initial manifestation of HIV-AIDS

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DESCRIPTION

A previously well, uncircumcised 54-year-old man presented to the emergency department with a large primary tumour of the penis (figure 1). The mass had been growing for 2 years and medical attention was not sought previously.

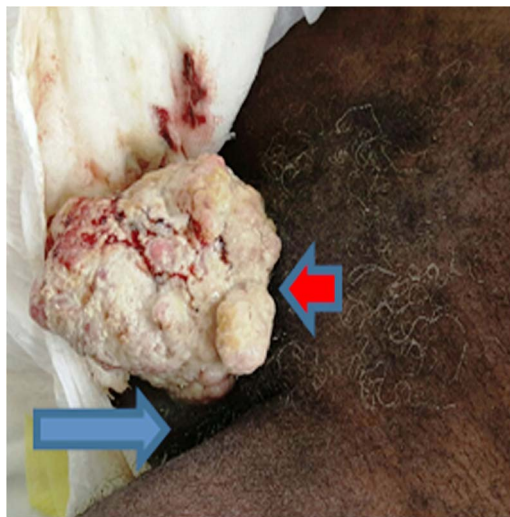


Figure 1 Photograph of the penis of 13.5 cm in length largely replaced by an extremely malodorous deforming fungating cauliflower-like solid whitish-yellow mass with a size of 12.0×6.6×8.0 cm (red arrow). Scrotum appears uninvolved (blue arrow).

On examination the patient was bedridden due to generalised wasting syndrome characterised by a body mass index of 18 kg/m² and generalised muscle atrophy. Poor intake of food and oral candidiasis were noted. Genital examination showed the penis of 13.5 cm in length largely replaced by an extremely malodorous, deforming, fungating, cauliflower-like, solid, whitish-yellow mass with a size of 12.0×6.6×8.0 cm. Palpable, multiple, bilateral, fixed, non-tender inguinal lymph nodes (largest 1.5 cm) were noted. The scrotum was uninvolved. The rest of physical examination was normal.

Urinary flow was normal but there was dysuria and nocturia. The haemoglobin value was 7.3 g/dL (reference values 14.0–17.5) and mean corpuscular volume was 73.2 fL/red cell (reference values 80–96). Western blot immunoassay test and HIV rapid test by ELISA were positive confirming the diagnosis of newly onset HIV-AIDS. Venereal Disease Research Laboratory test was non-reactive. Urine culture grew *Citrobacter freundii* complex and *Klebsiella pneumoniae* both sensitive to tigecycline. Extensive investigations for autoimmune, metastatic and other infectious diseases were negative. On admission, the HIV viral load was 200 312 RNA copies/mL (reference values 20–10 000 000) and the CD4+ T-cell count was 5 cells/μL (reference values 410–1590). Three months later, the HIV viral load dropped to 28 312 RNA copies/mL and the CD4+ T-cell count was 150 cells/μL. The prostate-specific antigen was normal. Identification

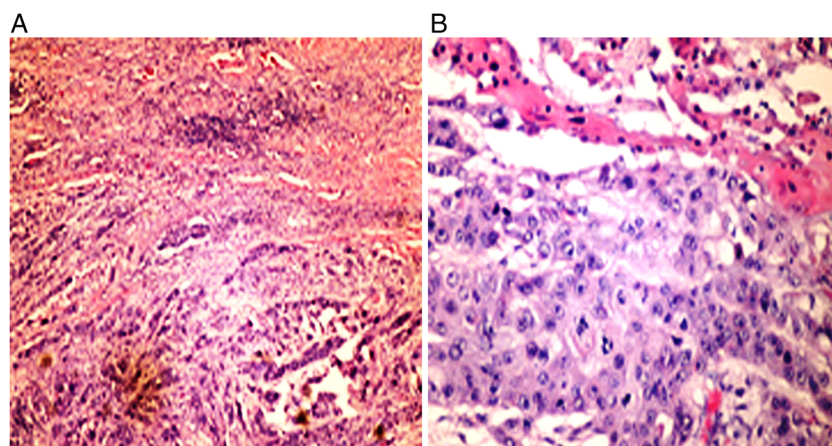


Figure 2 Penis tumour photomicrography with routine H&E staining: (A) magnification ×10 showing a finger-like projection of atypical squamous cells, which often appear as concentrically arranged nests of cells surrounding keratin pearls pattern typical of well-differentiated squamous cell carcinoma grade I (Broders classification); and (B) magnification ×40 showing the epithelial cells with intact desmosomes and atypia, with enlarged and pleomorphic nuclei and one or more prominent nucleoli.



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Images in...

of human papillomavirus (HPV) DNA by the use of molecular hybridisation techniques was unavailable. CT scan of the chest, abdomen and pelvis showed multiple lymphoid nodes of 1.7 cm in size located in the inguinal region bilaterally.

Total penectomy with perineal urethrostomy was performed and tumour histopathology using routine H&E staining showed features consistent with well-differentiated squamous cell carcinoma (SCC) with invasion of the corpus cavernosum and corpus spongiosum. Lymphovascular permeation was not seen and the urethra was not involved. Proximal resection margin was free of tumour (figure 2A, B). Fine-needle aspiration cytology of the inguinal lymph nodes suggested reactive hyperplasia. Our patient was classified as penile SCC Jackson stage II and

T2N0M0 stage II which has a 5-year survival rate of 55%.¹ The patient improved postoperatively and after antibiotic treatment with highly active antiretroviral therapy (HAART) and tigecycline 100 mg intravenous infusion initially followed by 50 mg intravenous infusion two times a day for 7 days. Three months later, he remains on oral emtricitabine (200 mg)-tenofovir disoproxil fumarate (300 mg) and efavirenz 600 mg once daily.

The oncogenic properties of HPV types 16, 18, 31 and 33 may be involved in the developments of primary SCC of the penis. HPV prevalence in penile cancers is high at about 40%, being HPV16 the predominant genotype accounting for ~63% of HPV-positive tumours among patients with HIV-AIDS. HPV vaccination has a positive role in preventing SCC of the penis and anus among patients with HIV-AIDS.^{2 3}

Learning points

- ▶ A large squamous cell carcinoma (SCC) of the penis requiring total amputation of the genital organ is rare as initial manifestation of HIV-AIDS.
- ▶ Primary SCC is the most common malignant neoplasms of the penis.
- ▶ The differential diagnosis for penile SCC includes erythroplasia of Queyrat, metastatic carcinoma of the skin, verruciform xanthoma, verrucous carcinoma and genital warts.
- ▶ The diagnoses of penile tumours may be delayed because many patients tend to disregard early asymptomatic lesions and often seek medical attention at an advanced stage when a conservative surgical approach is no longer feasible.
- ▶ On the basis of the stage, the treatment of the SCC of the penis may include radiation therapy, medical therapy, and surgery, alone or in combination.

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