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Case Report Open Access

Penile Cancer: Report of 3 Cases and Review of the Literature

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Abstract

Cancer of the penis is rare in Senegal. This rarity could be related to the preventive action of ritual circumcision that is widely practiced during childhood. We report 3 cases of penile cancer tumor. The average age of our patients was 42.5 years with as extreme 22 years and 67 years. The average time for consultation was 6 months. All patients were circumcised during childhood. Squamous cell carcinoma was found in 2 cases. The review of the literature shows the rarity of this tumor and the role of promoting factors: the absence of circumcision and papillomavirus infection

Keywords: Penile cancer; Circumcision; Senegal

Introduction

Primary penile cancer is a rare neoplasm [1]. Its frequency varies in Western countries. It is estimated between 0.3% to 0.5% of human cancers in the USA [1] with an estimated incidence of less than 1 per 100,000 in Europe [1]. In Senegal, their primary penile cancer frequency is estimated at 0.35% of all cancers and 0.97% of urological cancers [2]. The most common histological form is squamous cell carcinoma (95%). [3] In Africa, there people view the issue as taboo and lack information, thus consultations occur at a late stage where the prognosis is guarded. The purpose of this study was to investigate the clinical and therapeutic aspects of neoplasms of the penis in our experience.

Case Report

Case 1

A 42 year old circumcised patient without other specific medical history, f presented with a painful wound in the penis lasting for two months without associated urinary disorders. The clinical examination of the penis showed friable, encrusted superficial ulceration of the glans, associated with induration of the corpus cavernosum to the proximal third of the penis (Figure 1).

Inguinal lymph nodes and Troisier lymph nodes were not enlarged. Imaging results required for staging, which had included abdominal ultrasound, chest X-ray and a thoraco-abdominal pelvic CT scan, were normal. The patient was classified T2N0M0. After discussion and consultation with a clinical psychologist physician, the patient agreed to surgical treatment. Amputation of two thirds (2/3) distal of the penis was achieved without inguinal lymph node dissection. Histopathological analysis a confirmed squamous cell carcinoma. The postoperative course was uneventful. No adjuvant therapy was administered postoperatively. The patient is alive after two years of postoperative follow-up. There is no local or regional recurrence. The patient was unable to maintain normal sexuality with the penile stump.

Figure 1: Squamous cell carcinoma.

Case 2

A 67 year old illiterate, farmer married with six children, was seen in consultation for the management of painful and permanent swelling of the penis evolving for about 10 months. He was circumcised during childhood. On physical examination, the patient had an altered condition, a budding lesion, whitish interesting glans with a total induration of the corpus cavernosum down to the root of the penis and small, painless, mobile inguinal lymphadenopathy (Figure 2). Chest X-ray results revealed bilateral pulmonary opacities consistent with pulmonary metastasis. Histopathological analysis of the excisional biopsy of the lesion concluded a basoloide carcinoma of the penis, stage pT3 N2 Mx G1. The patient died on day 15 of hospitalization after a deep coma with no signs of neurological localization (Glasgow Score=4).

Figure 2: Basaloid carcinoma.

Case 3

A 22 years old patient with no notable medical history, presented for the care of a chronic, painful wound of the penis, evolving for the last 6 months. This wound had intermittent bleeding. The patient denied symptoms of dysuria. Physical examination revealed an impaired general condition, a friable, ulcerative lesion exophytic and associated with large (5 cm diameter), mobile, painless inguinal lymphadenopathy on the left side, fixed at a deeper level and inguinal lymphadenopathy fistulized (Figure 3). Laboratory tests confirmed normochromic normocytic anemia (8 g of hemoglobin), leukocytosis 15,000/mm^3 and a decrease of prothrombin time. The abdominal-pelvic ultrasound did not note any liver metastatic lesion or deep lymph nodes. CT scans findings show heterogeneous tissue mass meeting at 2/3 of the penis and infiltrating 2 cavernosa, multiple inguinal lymph nodes of varying size with areas of necrosis. Remote visceral metastasies is not evident. The patient received a bilateral inguinal lymphadenectomy and a partial amputation of two thirds of the penis. He refused to amputate the penile organ (Figure 3). The pathology results showed differentiated squamous cell carcinoma infiltrating the penis. The surgical margins were not clear. There was invasion of five lymph nodes. The patient was classified as Stage pT3 N2 Mx G1. The postoperative course was complicated by a right inguinal fistula and progressive deterioration of his general condition. The patient died during the period of preparation for chemotherapy and radiotherapy.

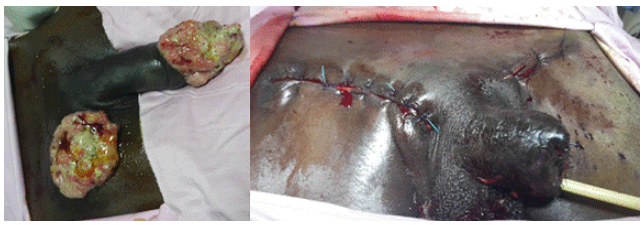

Figure 3: Preoperative (ulcerogenic tumor) and postoperative of squamous cell carcinoma.

Discussion

Cancer of the penis is a rare tumor [1]. In Africa, few cases have been published in the literature and the studies are retrospective. Magoha and Kaale [2,3] reported 31 cases in 20 years. In Senegal, it represents 0.97% of the adult human cancers and 0.35% of all cancers [2]. In our study, we identified 3 cases over a period of 5 years. The diagnosis is often made at an advanced stage of the disease among Africans. This is may be related to modesty, taboos and religious beliefs [2,4].

Several risk factors have been mentioned in the occurrence of penile cancer [5]:

- Age of onset: it is a cancer that occurs most often in men over 50 years [2]. Two of our patients were diagnosed before the age of 50 years.

- Circumcision done late. Wan et al. [6] had reported 17 cases of penile cancer in circumcised patients late while Luciano et al. [7] showed that phimosis is the main risk factor for penile cancer in Brazil. When circumcision is done in the neonatal period or before puberty, the risk of penile cancer decreases by three to five times compared in adulthood [4]. In Senegal, circumcision is a widespread ritual.

- Precancerous lesions such as lichen sclerosus, erythroplakia Queyrat and Bowen's Disease [8].

- The DNA of Human Papilloma Virus (HPV) has been identified in 70-100% of intraepithelial neoplasia and 40-50% of invasive tumors [9]. The HPV-16 and HPV-18 are subtypes of HPV and have a role in 50% of cases of penile cancer [10,11]. Some authors recommend routine screening for penis cancer in male partners of patients diagnosed with neoplasia of the cervix [11].

The lesions are often confined to the glans. Luciano [6] in Brazil, found 73% of lesions localized to the glans and foreskin. Squamous cell carcinoma is encountered the main histological type [12,13]. The basaloid carcinoma is a tumor not exophytic, ulcerated with vertical extension method [14].

In Africa, the usual delay in diagnosis requires us to use a full or partial amputation of the penis [2,12]. This mutilating procedure can have a psychological and negative impact on the quality of sex life. This sometimes raises the question of the acceptability of the penile amputation. However, penis cancer treatment has evolved. Indeed, for the superficial lesions, photodynamic therapy, cryosurgery with liquid nitrogen and 5-fluorouracil in topical combined biopsy have been successfully used [14-16].

The prognosis of cancers of the penis depends on the TNM stage, histological type, tumor grade and the presence of vascular and lymphatic invasion [17]. Metastatic carcinoma basaloid risk would be higher [14,15]. Some authors believe that the prognosis for these cancers is pejorative because survival is around 80% at five years for patients without lymph node involvement, about 50% when the lymph nodes are invaded and less than 30% for metastases [17,18]. Patients who died in our study had lymph node and visceral metastases. T4 tumors (invasive to other adjacent structures and/or N+(presence of metastasis in inguinal nodes) have a poor prognosis, with early death of [19] patients.

Conclusion

Cancer of the penis is a rare disorder that is easily diagnosed. In Africa, the observed therapeutic problems are related to the delay in diagnosis. Neonatal circumcision seems to have a protective role. Surgical resection is the standard treatment.

Conflict of Interest

The authors declare that no conflict of interest.

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