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Squamous Cell Carcinoma of the Penis in Two Cases at the Bamako Dermatology Hospital, Mali

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Abstract **Case Report**

Penile cancer is a rare pathology. Squamous cell carcinoma represents the most common histological type. Radical excision surgery, although often mutilating, remains the best treatment for localized stages. We retrospectively report the epidemiological, clinical, therapeutic and progressive characteristics of two clinical cases of penile cancer.

Keywords: Cancer, penis, Bamako Dermatology Hospital, Mali.

INTRODUCTION

Penile cancer is a rare pathology. Its incidence in France is estimated at 1 per 100,000 men [1]. This incidence can vary depending on geographic regions: 0.3 per 105 men in the United States [2], 0.4 to 0.6% of male cancers in Europe [3]; 0.7% in Canada; 4.2% in Uganda [3]. Luciano *et al*., [4] reported an incidence of 2.9-6.8/100,000 in Brazil. Squamous cell carcinoma is the most common cancer of the penis [3-5]. Most of the time these carcinomas develop from the mucous covering of the glans (48%), the foreskin (25%), the glans and the foreskin (9%), the sulcus coronaris (6%), exceptionally (2%) the starting point is the skin covering [1, 6]. The main risk factor is the lack of local hygiene, aggravated by the presence of phimosis. Infection with HPV serotypes 16 and 18 is also a present risk factor. Circumcision in the perinatal period or before puberty plays a preventive role [5].

Surgical treatment by excision is the treatment of choice for squamous cell carcinoma of the penis [7]. Conventional treatment of penile cancer was based on partial or total amputation of the penis associated or not with bilateral ilioinguinal lymph node dissection. The surgical technique is not standardized: it depends on the technical possibilities, depending on the size and location of the tumor [7, 8]. Radiotherapy can be an alternative treatment for the primary tumor in cases of tumor less than 4 cm. It consists of interstitial brachytherapy using iridium 192 wires at a dose of > 60 Grays [7]. The prognosis for advanced stages of penile cancer is guarded [9]. Local recurrence is observed in approximately 15–30% of cases treated conservatively [1].

OBSERVATION 1

This is a 55-year-old patient with no previous medical or surgical history, admitted to the department on 02/15/2021 for a purulent ulcerous budding mass of the penis that has been present for 15 years. It began with a small ulcerative mass that appeared following a scratching lesion according to the patient. This ulcerative mass was treated several times as a sexually transmitted infection without success. Then the patient carried out traditional treatments also without result. This mass gradually increased in volume with ulceration, and extension to the subumbilical region. The clinical examination revealed a polylobed superinfected ulcerobud tumor on the anterior surface of the penis, extending to its proximal part measuring 3.5x2.3 cm (Fig 1). The biological assessment was unremarkable apart from anemia. The biopsy was performed, on pathological examination, it was a moderately differentiated squamous cell carcinoma. Abdominopelvic CT revealed a tissue lesion process developed at the expense of the soft parts of the penis with a malignant appearance with bilateral ischemic lysis of L4 associated with a grade 1 ante-listhesis of L4 on L5. The extension assessment

consisting of the chest x-ray was unremarkable. The file was presented to the multidisciplinary consultation meeting (RCP) where the decision of initial chemotherapy followed by wide excision surgery was retained. During the multidisciplinary consultation meeting, it was decided to carry out a wide excision as a first intention followed by palliative chemotherapy, in the absence of radiotherapy which had failed. Wide excision with plasty was carried out (Fig 2 & 3). The result of the surgical specimen was in favor of a moderately differentiated squamous cell carcinoma, the resection margins were healthy. Palliative chemotherapy was conducted according to the protocol: weekly paclitaxel 8 cycles. The patient was seen again 9 months after chemotherapy or 11 months after surgery without recurrence with grade 2 paclitaxel toxicity. The control CT scan suggested lesion stability at level L4 according to the Recist 1.1 criterion.

Fig 1: A polylobed ulcerobud tumor on the anterior surface of the penis

Fig 2: Excision area

Fig 3: After plasty

OBSERVATION 2

This is a 57-year-old patient with no known pathological history admitted to the department on 05/09/2022 for a crusty ulceration of the left latero-proximal part of the penis extended to the ipsilateral bursa (Fig 1), evolving for three years. The patient was followed in a private facility where he received wound dressings for several months. Faced with the persistence of the lesion, he went to Guinea Conakry for traditional treatment without success. Not having noticed any improvement, he consulted again the dermatology department of the Bamako dermatology hospital where an opinion on oncological surgery was requested. Clinical examination: found an ulcerative and crusty tumor, the contours were irregular with a pale background. It was located on the left latero-proximal part of the penis extending to the left ipsilateral bursa. On palpation there was no palpable inguinal lymphadenopathy. A biopsy was performed, on pathological examination it was a moderately differentiated squamous cell carcinoma. The biological assessment was unremarkable (blood count, renal and hepatic function and viral serology). The thoraco-abdominopelvic CT showed at the pelvic level a suspicious thickening of the penis measuring 38x35 mm with bilateral inguinal lymph node metastases, nodular osteocondensation of the left iliac wing suspicious for a secondary lesion. On the thoracic level, a subpleural nodule of the right S3 segment measuring 2.6 mm classified as stage 4 of the disease. The file was presented to the multidisciplinary consultation meeting where the decision for primary chemotherapy followed by wide excision was made. The systemic treatment whose protocol was: Cisplatin 5-fluoro-racil on D1 D21 with 6 courses of chemotherapy which gave a good clinical reduction of the lesion. This chemotherapy was followed

by a wide excision of the tumor extended to the bursa followed by a plastic surgery with the scrotal skin flap (Fig 2). The postoperative course was simple with good healing on day 27. After two years of follow-up, no recurrence was noted.

Fig 4: A crusty ulceration of the left lateral-proximal part of the penis extended to the bursa

Fig 5: Urinary catheter and healing wound

DISCUSSION

According to the Mali cancer registry, in 2020 penile cancer represented 0.2% of cancers [10]. In our country few patients benefit from histological proof, the number of reported cases is probably lower than reality. This rarity is cited by other West African authors, in Ivory Coast 0.3% [11]; and by Gueye S.M and in Senegal found 0.35% [1]. The average mean age of onset in our study was 56 years, which is consistent with literature data [7, 9, 12]. Other authors have described cases diagnosed in young subjects before the age of fifty, late circumcision being a risk factor for the occurrence of penile cancer [13]. The pathology can manifest itself with very variable macroscopic appearances [7]. The lesions have an ulcero-vegetative presentation in the majority of cases, with a fairly wide implantation base [14]. A whitish, frosted spot extending over the glans and balanopreputial area, often with deformation, or a grayish warty-looking mass with slow growth on the surface gradually becoming infiltrative. These different aspects can follow one another or coexist [6]. In our series, the manifestations were budding ulcerated tumors on the penis. With an absence of lymphadenopathy in patient 1, and palpable inguinal lymphadenopathy in patient 2. The diagnostic assessment is based on clinical examination looking, in particular, for cavernous or spongy infiltration, and evaluating the length of the penis [5]. Clinical examination of the inguinal lymph node areas must be systematic and bilateral, looking for lymphadenopathy. He must particularly appreciate their mobility [5]. Inguinal lymphadenopathy is frequently found in 58% of cases at the time of diagnosis [1]. One of our patients presented with inguinal lymphadenopathy. CT lacks sensitivity to assess the local extension of the disease. An MRI with erection test can assess the depth extension of the tumor [1, 5]. During our study, a thoraco-abdominopelvic CT scan was requested in our two patients, which showed in patient1: a tissue lesion process developed at the expense of the soft parts of the penis with a malignant appearance without locoregional or distant extension. On the other hand, the second concluded that there was a suspicious thickening of the penis of 38x35 mm with bilateral inguinal lymph node metastases, a subpleural nodule of the right S3 segment of 2.6 mm and nodular osteocondensation of the left iliac wing of suspect secondary lesions. In both cases, the excisional biopsy concluded that it was a moderately differentiated squamous cell carcinoma. This result is consistent with literature data [5]. In our patients, the surgical treatment consists of a wide excision of the penis and the bursa plus plasty of a scrotal skin flap under a urinary catheter. Surgical treatment by excision is the treatment of choice for squamous cell carcinoma of the penis. It is appropriate to opt for the most conservative surgery possible. Because this gesture is mutilating and psychologically traumatic because patients consider the penis as proof of their virility [7]. The surgical technique is not standardized. It depends on the technical possibilities, depending on the size and location of the tumor [6]. However, in the event of partial penile amputation with urethral and meatal reconstruction, it is essential to leave a remaining penis length of at least 3cm in order to allow directed urination. In all cases, obtaining a negative surgical margin is an absolute imperative [5, 6]. Inguinal lymphadenectomy

represents the treatment of choice for inguinal lymph node areas. Local treatments may consist of the application of cytotoxic cream, laserization with the Yagou CO 2 laser or dynamic phototherapy after application of a topical photosensitizer. A complete response is obtained in approximately 50 to 60% of cases [7]. One of our patients benefited from systemic treatment whose protocol was: Cisplatin 5-fluoro-racil on D1 D21 with 6 courses of chemotherapy which gave a good clinical reduction of the lesion. The patient was classified as cT4N1M1. It consists of the administration of four cycles of Cisplatin and taxanes. Its particular aim is to facilitate surgical excision [7]. In cases of clinical lymph node metastases, lymph node dissection has a well-defined role allowing a specific 5-year survival of greater than 80% without lymph node involvement [15]. No recurrence was noted in our patients over two years of observation.

Limitations of the study

Patients did not benefit from radiotherapy because the country only has one radiotherapy unit which was shut down at the time of the study.

CONCLUSION

Penile cancer is a rare pathology. Only sociocultural awareness would allow early diagnosis and therefore a better prognosis. In our series, a lumpectomy was performed without penectomy. No cases of recurrence were recorded after two follow-ups.

Conflict of Interest: The authors declare that they have no conflict of interest.

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