

## Partial Penectomy for Tumor of the Penis: A Case Report and Review of the Literature

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### Abstract

### Case Report

Cancer of the penis is a relatively rare pathology in our country due to the widespread practice of circumcision. Easily diagnosed on the basis of a careful clinical examination and penile Magnetic resonance imaging (MRI), this cancer is often diagnosed late and poses a problem of management, particularly the acceptability of amputation of the penis. Partial penectomy is a surgical technique currently practised for cancers of the penis, when the indication arises, could be a form of conservative surgery allowing to have a good oncological result and to satisfy the request of the patient to try to preserve his erectile and sexual function. We report here a case of squamous cell carcinoma of the penis treated in our department by partial penectomy.

**Keywords:** Verge, Partial penectomy, Lymph node dissection, MRI, squamous cell carcinoma.

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## INTRODUCTION

Primary tumours of the penis are rare lesions that represent less than 0.5% of male cancers [1], especially in Morocco where circumcision is common practice. It is a cancer of the elderly subject, which most often affects men over the age of 50. In 95% of cases it is a squamous cell carcinoma [2]. The management of these cancers is often a real challenge. We report here a case of squamous cell carcinoma treated surgically by partial penectomy.

## CLINICAL OBSERVATION

He is a 56-year-old married man. In his history there is a notion of a trauma of the glans more than 10 years ago. There was no history of recurrent urethritis but there was chronic smoking, circumcised in childhood. The patient was consulted for dyspareunia responsible for a loss of sexual activity and a painful ulceration of the glans that had been evolving for over 10 years.

On clinical examination, a circumcised penis was found with an ulceration that was very painful to the touch and took up most of the glans penis (Figure 1) without extending to adjacent structures. The inguinal lymph nodes were clinically free.

Our patient underwent a biopsy of the lesion, which came back in favour of a moderately differentiated, infiltrating, and non-keratinising squamous cell carcinoma.

Penile MRI showed a localised lesion process in the balano preputial sulcus and glans, with no infiltration of the corpus spongiosum or cavernous body (Figure-2) and no inguinal adenopathy graded T1bN0Mx.

After discussion with the patient and a favourable opinion from a psychiatrist, the patient accepted the surgical procedure. Admitted to the operating room for partial penectomy with bilateral inguinal lymph node dissection.

The immediate postoperative course was simple and the patient was declared outgoing after removal of the two drains left on the two lymph node dissection sites.

The outgoing order included a prescription for preventive anticoagulation and phosphodiesterase 5 inhibitor (PDE5). The patient was reviewed in consultation (Figure-3) with histological results that found a 3.5 cm focus of a well-differentiated infiltrating squamous cell carcinoma and the presence of lympho-

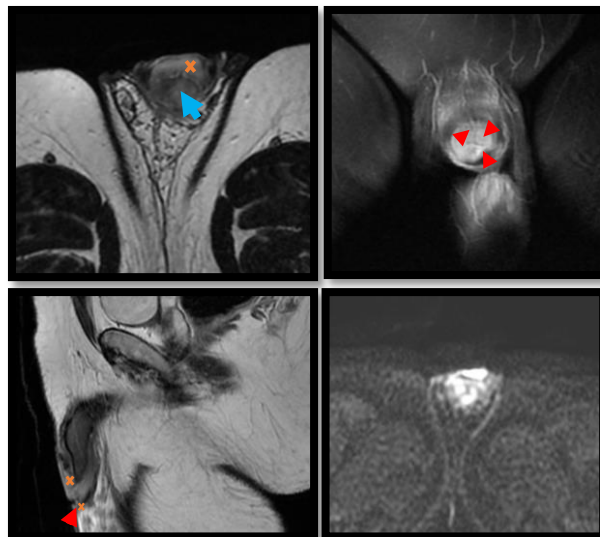
vascular invasion with healthy excisional margins of more than 0.5 cm and a negative inguinal lymph node dissection. The tumour was classified as T1bN0Mx.

The evolution at 06 months (Figure-4) was marked by the disappearance of penile pain, good healing, absence of scrotal or lower limb lymphedema,

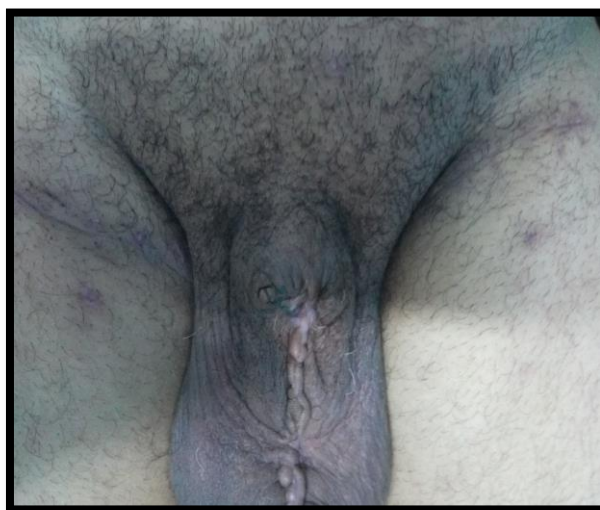
and absence of urethral meatus stenosis, absence of lymph node adenopathy and resumption of erections under PDE5 with resumption of sexual activity. Our patient was seen again at 09 months (Figure-5), then put on regular follow-up, and is already at 18 months of recurrence-free survival.



**Fig-1: ulcero-burgeoning tumour of the penis: preoperative appearance**



**Fig-2: Penile MRI images showing the tumour lesion of the balano-preputial sulcus and glans**



**Fig-3: Partial penectomy: 01-month post-operative.**



**Fig-4: Partial penectomy: 06-months post-operative**



**Fig-5: Partial penectomy: 09-months post-operative**

## DISCUSSION

Cancer of the penis is a rare tumour. In Africa, very few cases have been published. It is a cancer of the elderly male, which occurs most often in subjects over 50 years of age [2], which was the age of our patient. The diagnosis is often made at an advanced stage of the disease in patients who often consult late, which is related to modesty, taboos and cultural beliefs, especially in Africa.

### Several risk factors have been incriminated

HPV infection (HPV-16 and HPV-18) is thought to play a role in 50% of penile cancer cases [...].3], lack of circumcision, low socio-economic level, chronic inflammation related to maceration like our patient, lack of local hygiene further favoured by phimosis, risky sexual behaviour (multiple partners, early first sexual intercourse), smoking, photo chemotherapy with the use of sporalen and ultraviolet A [3, 4].

Cancer of the penis in the early stages mainly affects the glans and prepuce [5] as in our patient. Squamous cell carcinoma (95%) is the most common histological type [3, 6] with preferential extension to the inguinal nodes [3]. Melanoma and sarcomas are more rare [7].

The diagnosis is most often made by clinical examination, which will find an indurated lesion in the distal portion of the penis in 95% of cases. The lesion

may be hidden by phimosis if circumcision has not taken place or may be associated with urethral discharge suggesting super infection [8].

The rest of the examination will focus on the search for local urethral, cavernous and perineal extension. The inguinal lymph nodes should also be carefully palpated for adenopathy [8], which is very important for the staging and subsequent management of the disease. These were absent in our patient.

Ultrasound can be performed but it is not the reference examination for local extension [9]. Penile MRI has a better sensitivity for local extension, urethral or cavernous, which is why our patient benefited from penile MRI to help with the diagnosis and local assessment of the tumor [10].

Inguinal imaging for adenopathy is only useful when there are palpable lymph nodes. In this case an inguinal ultrasound, CT or MRI scan or even an 18F-FDG PET scan can be performed with a sensitivity and specificity of up to 100% to confirm the presence of palpable inguinal metastasis [11, 12]. Our patient had no palpable adenopathy on clinical examination, so there was no indication for further imaging.

A biopsy of the lesion, the key to the diagnosis in our patient, allows an anatomic-pathological diagnosis to be obtained and is recommended in the case of lesions of the penis. A biopsy-exeresis is

generally preferred to a millimetre biopsy. The latter is often performed in the urology practice on an outpatient basis, under local anaesthesia [13].

Surgical treatment of tumours of the penis provides the best tumour control but it is a mutilating procedure, both because of its psychological impact and because of the potential after-effects of the operation, which aims to reconcile two contradictory requirements: destruction or removal of the tumour with a sufficient safety margin and functional preservation. According to the latest recommendations, this technique can be used if the tumour is classified as T1b, T2 or T3 with a distal location without proximal extension. The surgery should be as conservative as possible. A posthectomy (circumcision) must be systematically performed if the patient is not circumcised. A negative margin is an absolute requirement [14]. A safety margin of 3 to 5 mm maximum is usually sufficient. The surgical technique is not standardised: it depends on the technical possibilities, depending on the size and location of the tumour.

Our patient had a localized tumor at the distal level (balano-preputial sulcus and glans), classified on MRI as T1bN0Mx, and therefore met the recommendations [8] for a partial penectomy associated with lymph node dissection, with a remaining penile length of more than 03 cm which allowed him to resume erections and sexual activity.

The rate of local recurrence after conservative surgery is 15% to 30% for all treatments. It occurs mainly in the first 2 years and is correlated with positive surgical margins [8]. This justifies a very rigorous follow-up for at least 5 years in addition to regular self-examination [9, 14].

## CONCLUSION

Primary epithelial malignancies of the penis are rare and occur predominantly in uncircumcised men. The glans and prepuce are the most common sites. Partial penectomy, when possible, is an alternative treatment that takes the patient out of the dilemma of having a good carcinological result and at the same time trying to preserve erectile function.

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