CASE REPORT

# PENILE NEOPLASM: AN ATYPICAL PRESENTATION

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## ABSTRACT

Penile carcinoma, representing less than one percent of all cancers in males, is a condition where diagnosis is frequently delayed, therefore the disease and its treatment results in significant morbidity and mortality in patients. There is no known etiology; however HPV infections are detected in most cases of penile cancer, so possible correlation may exist. Penile cancers usually present as an outgrowth or lesion on the penis with bleeding, itching or discharge. We are presenting an unusual case of a 43-year old circumcised male with penile cancer who had obstructive symptoms and diffuse thickening of penis without any external lesion or growth or known risk factors. The literature review revealed its rarity to best of our knowledge. Till date penile cancer continues to be a devastating disease, and its presentation is compounded by its psychological impact on the patient. Moreover, unusual thickening of penile shaft should be biopsied.

**KEYWORDS:** Cancer, Penis, Neoplasms, Penile, Atypical, Carcinoma

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## INTRODUCTION

Penile cancer is uncommon and represents less than one percent of all cancers in males. The reported incidence is higher in uncircumcised males. The average age of onset is about 60 years.[1] 30% of penile cancers have advanced by the time of diagnosis.[2] The etiology is unknown. In a large number of case series, human papillomavirus was identified in penile neoplastic tissue.[3] Squamous cell carcinoma (SCC) constitutes nearly all penile cancers.[1,3] Penile carcinoma typically spreads through the lymphatic system. The tumor may commonly metastasize to lungs.[1- 3] Due to its rarity and lack of sufficient literature, unusual or atypical presentations can be easily over-looked if not high on index-of-suspicion.

## CASE REPORT

A 43-year old circumcised male, with no known co-morbids, a non-smoker who worked as a construction worker presented with complains of hesitancy, dysuria, nocturia and increased straining required during urination. A detailed history pointed out that he had a history of pelvic and penile trauma 2 years previously during a 'craning accident'. During that time he was catheterized and there was no perceived urethral trauma. A year later, he presented with urinary hesitancy, poor stream, dysuria and nocturia. This time, he underwent catheterization with multiple attempts in different institutes and with minimal relief but was eventually successfully catheterized. Detailed workup was done which showed a bulbo-membranous stricture and an enlarged prostate of 70 gms. Optical Internal Urethrotomy was performed and repeated dilatations were done. One month later he presented with worsening of dysuria, dribbling of urine and progressive hardening in the shaft of his penis. Another cystoscopy was performed which showed patent urethra with very unhealthy mucosa. A biopsy was taken and sent for histopathology, and suprapubic catheter was left in-situ. Histopathology report showed a well-differentiated squamous cell carcinoma. The patient had no history of radiation exposure from his occupation or otherwise. There was no family history of malignancy, he had no history of STIs, genital warts, or any documented HPV infection.

Further workup was done for staging. MRI showed that the Cancer was locally invasive and extended

to the Pelvis and perineum and External Anal Sphincter. PET scan showed Bilateral Inguinal Lymph node involvement (Fig: 1). He was diagnosed as stage III squamous cell carcinoma of penis and oncology was also brought on-board to assist in developing an effective management strategy for this case and started on chemotherapy and radiation.

Physical examination of this middle aged, intelligent, cooperative but anxious man of moderate built and nutrition, revealed pallor and a temperature of 100oF with all other vitals normal. Local examination showed no external or superficial lesion however penile shaft was slightly harder in texture, than expected. The penile shaft was otherwise normal in appearance with no gross external deformity. The inguinal lymphnodes were not palpable bilaterally. Systemic examination revealed all other findings were within normal limits. His blood analyses were shown within normal limits.

Patient only consented for sharing of MRI images and refused photographs.

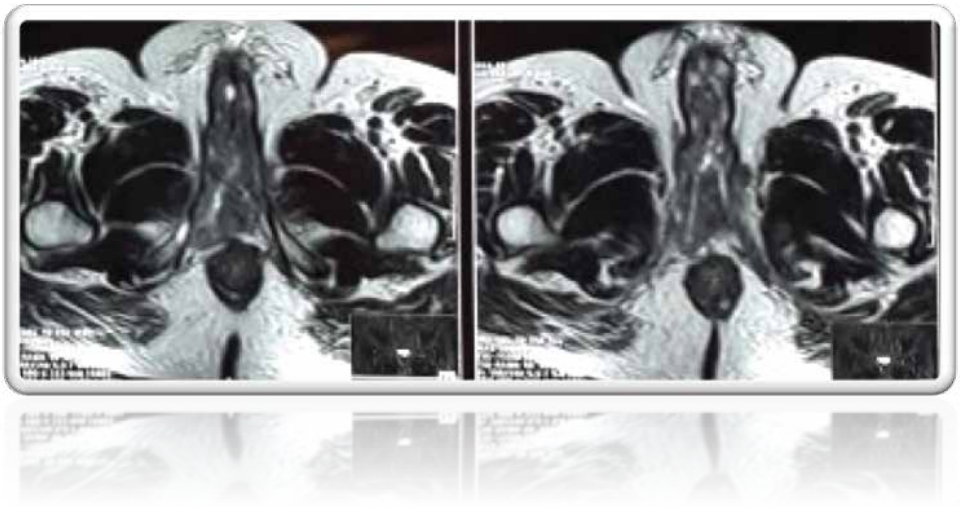

**Figure: 1 MRI showing diffuse thickening of penile shaft.**

## DISCUSSION

Penile carcinoma is a rare entity with an incidence of less than 1 percent among all malignancies in males. Circumcision in infancy is reported to be protective.[1-3] Circumcision prevents conditions such as phimosis, retention of smegma and lichen sclerosus, and decreases the risk of HPV infections. The presence of phimosis allows the buildup of smegma, which results in chronic irritation and inflammation of the glans and prepuce. Penile SCC most commonly presents between the ages of 50 and 70 years.[4] Risk factors for penile cancer include human papilloma virus (HPV) infection, smoking, phimosis and poor hygiene. Up to 42% of penile carcinomas are HPV positive, and HPV infections are, in turn, directly related to the number of lifetime sexual partners. The majority of lesions are found on the glans (48%), followed by the prepuce (21%), both glans and prepuce (15%), coronal sulcus (6%), and shaft (<2%).[4]

Clinical presentation is variable. Literature review showed that it may present as a small area of induration and erythema or a large ulcerating and infiltrative lesion.[1]But in our case, the patient presented with only diffuse thickening of penile shaft and there was no external lesion or growth on overlying skin, which has not been reported in literature, to the best of our knowledge. Our patient presented with symptoms of stricture urethra and benign prostatic enlargement including hesitancy, dysuria, nocturia and increased straining required during urinationbut was found to have malignant disease of rare origin. This made the case very unusual and difficult for us to diagnose initially. Typically, as the disease progresses, there may be associated itching, bleeding, discharge, foul odor, and pain.[4] However, in this case, the patient did not have any of these symptoms and only had obstructive symptoms which is rare; and only found to be reported in one case report of same country.[3]

The incidence and prevalence of premalignant penile lesions and their geographical variation is not well established.[5] Although this patient did not have a history of STIs or documented HPV infection, he had a history pelvic trauma two years prior to diagnosis of penile cancer. While no previous studies have ever reported a relation between trauma and penile malignancy, the history of trauma in this case is an interesting finding.

The delay in diagnosis of penile cancer has been

well documented. Presentation may be delayed secondary to psychological factors including embarrassment, guilt, fear, ignorance and personal neglect, with an estimated 15-60% of patients postponing presentation for at least one year.[4,6] Despite this, most men (66%) initially present with localized disease.[6] In our case due to its unusual presentation and a healthy patient with no risk factors or co-morbidities, there was significant delay in diagnosis and initiation of effective treatment.

Primary tumour is commonly treated by a disfiguring penile amputation. Accurate staging and appropriate management of the inguinal lymph nodes remain a challenge that has important prognostic implications. A risk-stratified approach has been advocated. Assessment of lymphatic spread with palpation of inguinal lymph nodes is an essential component of the initial physical exam. Lymphatic spread usually occurs in a predictable course, first to the superficial and deep inguinal nodes, followed by the pelvic, and then para-aortic nodes. The regional femoral and iliac lymph nodes are the sites of penile carcinoma lymphatic metastasis.[7,8]Distant metastases are generally uncommon (1-10%) and occur late in the disease course.[4,7]Literature also showed that majority of the patients were uncircumcised and had one of the other risk factors (as mentioned previously).[8] As suggested by epidemiological studies, cigarette smoking is associated with a 4.5-fold increased risk (95%) although its exact role remains unclear. Low socio-economic status and a low level of education are other epidemiological factors associated with penile cancer.[9,10] This patient was circumcised in infancy and had no known risk factors.

Penile cancer continues to be a devastating disease. Due to its rarity in origin there are no definite guidelines for its management. Physicians must be aware of its risk factors and rare clinical presentation in order to make early diagnosis and treatment. Moreover, any unusual thickening of penile shaft should be biopsied.

## REFERENCES

1.Kouka SCN, Diallo Y, Seck F, Diousse P, Jalloh M, et al. (2017) Penile Cancer: Report of 3 Cases and Review of the Literature. Med Sur Urol 6: 182. doi:10.4172/2168-9857.1000182 growth

2. Culkin DJ, Beer TM. Advanced penile carcinoma. J Urol 2003;170(2):359-65.

3. Malik GA. Unusual presentation of carcinoma of penis. J Coll Physicians Surg Pak 2008;18(1):40-2.

4.Barnholtz-Sloan JS, Maldonado JL, Pow-Sang J, Guiliano AR. Incidence trends in primary malignant penile cancer. In Urologic Oncology: Seminars and Original Investigations 2007 Sep 1 (Vol. 25, No. 5, pp. 361-367). Elsevier.

5.Arya M, Kalsi J, Kelly J, Muneer A. Malignant and premalignant lesions of the penis. BMJ 2013; 346:f1149.

6. Brady KL, Mercurio MG, Brown MD. Malignant tumors of the penis. Dermatol Surgery 2013;39(4):527-47.

7. McDougal WS, Lee RJ, Efstathiou JA, Harisinghani M, Wu CL. Case 2-2014: A 44-Year-Old Man with a Lesion on the Penis. New Engl J Med 2014;370(3):263-71.

8.Da Lau W, Ong CH, Lim TP, Teo C. Penile cancer: a local case series and literature review. Singapore Med J 2015;56(11):637.

9.Daling JR, Madeleine MM, Johnson LG, Schwartz SM, Shera KA, Wurscher MA, Carter JJ, Porter PL, Galloway DA, McDougall JK, Krieger JN. Penile cancer: importance of circumcision, human papillomavirus and smoking in in situ and invasive disease. Int J Cancer 2005;116(4):606-16.

10. Slaoui A, Jabbour Y, El Ghazoui A, Karmouni T, Elkhader K, Koutani A, Attaya AI. Penile cancer: about ten cases at the University Hospital of Rabat, review of the literature. Pan African Med J 2015;22(1).