



## Case Report

# Leiomyoma on the penile shaft

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### ABSTRACT

Primary soft tissue tumors of the penis, such as leiomyomas, are very rare. To the best of our knowledge, less than ten cases have been reported till date. The lesion gradually increases in size and can mimic a malignant lesion. Excisional biopsy and histopathological examination can provide the diagnosis as well as cure, both physical and psychological. We report a case of a penile shaft leiomyoma in a 49 year old male.

## INTRODUCTION

Leiomyomas may originate from any anatomic location of smooth muscle in the genitourinary system but are uncommon neoplasm.<sup>1</sup> Leiomyomas tend to grow in size rapidly and hence mimic a malignancy. Early surgical excision is therefore advised to provide both a diagnosis as well as a cure.<sup>2</sup> In an extensive search of literature, it was found out that less than ten cases have been reported till date.

## CASE REPORT

A 49 year old man noticed a nodule on the dorsal shaft of his penis for approximately four months. There was a gradual increase in size of the nodule but was not associated with pain or any other physical discomfort.

On examination, the nodule measured 1.5X1 cm and was firm, non-tender, non-fluctuant, non-transilluminant and free from the overlying skin. Excision of the lesion was done under local anesthesia. On gross examination, the nodule measures 1.5X1X0.5 cm and on cut surface it

was soft to firm, homogenous gray white in appearance with a well defined margin. Hematoxylin and eosin (H &E) stained sections revealed interlacing smooth muscle fascicles with absence of any secondary changes (fig. 1). Immunohistochemistry with Smooth Muscle Actin (SMA) marker was done with stained positively (fig.2). Patient follow up was done for a year with no further associated symptoms.

## DISCUSSION

Soft tissue tumors can occur in the penis but are exceedingly rare. Benign soft tissue neoplasms such as leiomyoma, hemangioma (including the epithelioid variant), schwannoma, neurofibroma, lymphangioma, glomustumor, fibrous histiocytoma, and granular cell tumor have been reported in the penis.<sup>3,4</sup> According to the experiences of the US Armed Forces Institution of Pathology, benign soft tissue tumors were seen most often on the glans and malignant tumors in the shaft.<sup>3,4</sup>

Leiomyoma is a benign lesion of smooth muscle origin. Reported leiomyomas of the penis arise either from the glans penis or from subcutaneous areas and some of them grow steadily. Careful pathological analyses to identify pleomorphic, hyperchromatic and mitotic characteristics of

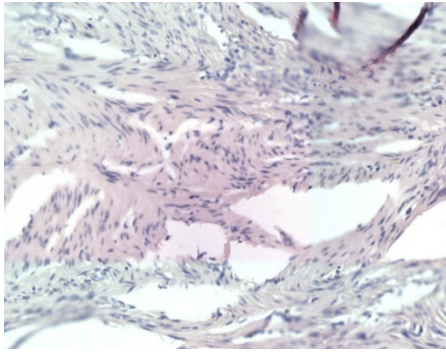
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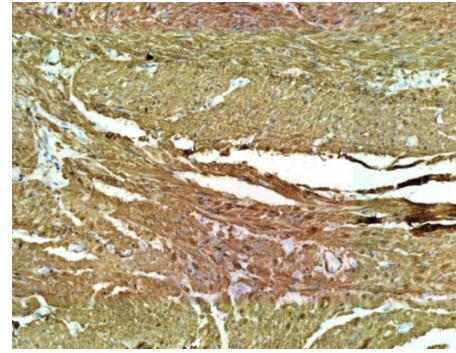
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**Figure 1:** Histopathology showing intersecting smooth muscle fascicles (H&E stain, X100).



**Figure 2:** Tumor cells showing positive staining by Smooth Muscle Actin (SMA, X100).

malignancy, together with immunohistochemical techniques to provide evidence of actin or vimentin molecules within the tumor cells are of value in differentiating leiomyomas from leiomyosarcoma.<sup>1,5</sup>

Previously cases of penile leiomyoma have been located on the dorsal shaft, frenulum, glans, prepuce, lateral base, corona glands and corpora. After the diagnosis of leiomyoma was established, patient was both physically and psychologically comfortable and was able to lead a normal life.

## CONCLUSION

Soft tissue tumors of the penis are extremely rare. Early excision of the lesion shall provide both physical and psychological comfort to the patient to lead a normal life.

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