

Leiomyoma of Urethra: A Common Tumour in an Uncommon Location

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Abstract

Background: Leiomyomas are one of the most common soft tissue tumours. Extrauterine leiomyomas are rare especially in urethra and usually occur in females of reproductive age group.

Case history: 27 year old postpartum female presented with a vaginal mass which bleeds on touch. On examination, a 3x2 cm mass was seen arising from the external meatus. Surgical excision was done. Grossly, it was an encapsulated nodular mass measuring 2x2x1 cm and grey white and firm on cut section. Microscopy revealed short fascicles and bundles of benign spindle cells without atypia and a diagnosis of leiomyoma was made. Massons trichrome staining supported the diagnosis.

Conclusion: Here we are reporting a case of leiomyoma of urethra in a young female owing to the rarity of the entity.

Keywords: Leiomyoma, urethra, female

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I. Introduction

Leiomyomas are benign tumours of smooth muscle and can occur in almost any anatomical location, uterine leiomyomas being most common¹. Leiomyomas are categorised into three : cutaneous leiomyomas, angiomyomas and leiomyomas of deep soft tissue. Urethral leiomyomas, although extremely unusual, are the most common type benign mesenchymal tumour at this site. This was first described by Buttner in 1894¹ and are mostly observed in females of childbearing age.

Here we present a case of leiomyoma in the distal part of urethra in a 27 year old female who presented with a vaginal mass which bleeds on touch. The preoperative diagnosis being urethral caruncle; the lesion was excised and the diagnosis was made by histopathological evaluation and special stain.

II. Case Details

A 27 year old female, one month postpartum, presented with a vaginal mass which bleeds on touch. She had no urinary symptoms. On examination, external genitalia showed a 3x2 cm polypoidal mass arising from the lateral aspect of external meatus. General and systemic examination was within normal limits. With a provisional diagnosis of urethral caruncle, excision of the mass was performed. Cystoscopy revealed no abnormality.

Gross examination showed an encapsulated nodular mass measuring 2x2x1 cm which was grey white and firm on cut section.

Microscopy showed a squamous epithelium lined tissue with a circumscribed neoplasm composed of short fascicles and bundles of benign spindle shaped cells. The cells have moderate amount of eosinophilic cytoplasm and oval to elongated vesicular nuclei. No mitotic activity or atypia or necrosis noted. Considering the morphology, a diagnosis of leiomyoma was made. Special stain (Masson's trichrome) supported the diagnosis.

III. Discussion

Neoplasms of urethra are rare, majority being malignant. The common differential diagnoses of urethral mass include urethral prolapse, urethral caruncle, urethral diverticulum, Skene's duct cyst, Gartner's duct cyst, urethral carcinoma, and ectopic ureterocele. Urethral leiomyomas are very rare².

Leiomyomas are one among the most common neoplasms of soft tissue. They arise from the smooth muscle and are most frequently encountered in the uterus. Extrauterine location is rare especially in deep soft tissue like urethra. Leiomyomas of urethra have a predilection for females. The proximal urethra is more frequently involved compared to distal urethra, and arises from the posterior wall. The tumour often appears during the reproductive age group; mean age is 41 years. The size decreases following menopause which has led to a speculation that it is hormonal dependent³.

The patients present with a variety of symptoms like palpable mass, haematuria, acute urinary retention, urinary tract infection, vaginal bleeding, or may remain asymptomatic. Men commonly present with obstructive symptoms secondary to a urethral stricture. A thorough assessment based on clinical history, physical examination, urethroscopy and imaging techniques helps to differentiate the tumour from other differentials. It is very important to distinguish the tumour from its malignant counterpart. The treatment is usually by surgical removal⁴. A complete excision is associated with a very low risk of recurrence. Smooth muscle stains and immunohistochemical markers may be done in difficult cases. To date malignant transformation has not been reported.

IV. Conclusion

Urethral leiomyoma is an extremely rare entity and is more commonly reported in females of reproductive age group. A detailed assessment along with histopathological examination is useful in diagnosing this condition. We are reporting a rare case of urethral leiomyoma in a young postpartum female which was presented as urethral caruncle. The rarity is also due to its location in distal urethra as compared to proximal urethra where it is more frequent and also due to the fact that on extensive literature search it was observed that an occurrence in postpartum period has not been reported before.

Ethical issues-none

Conflict of interest-none

Acknowledgment

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LEGENDS TO FIGURES

Fig.1. An encapsulated mass measuring 2x2x1 cm. Inset shows closer view of cut surface which was grey white and firm.

Fig.2. A) Microscopy shows a circumscribed neoplasm composed of short fascicles and bundles of benign spindle shaped cells. (H&E, x100; Inset-H&E, x400) and B) Masson Trichrome staining shows characteristic red staining of smooth muscle bundles.

Photos

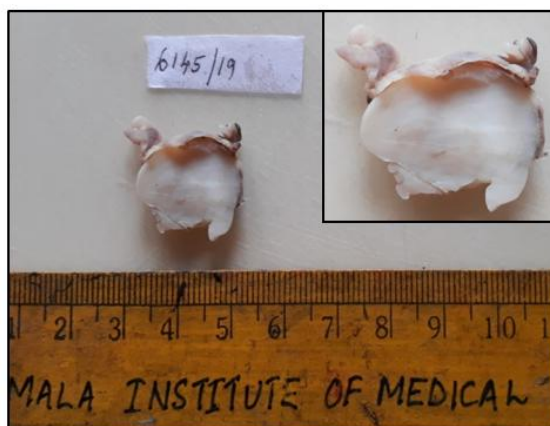


Fig.1

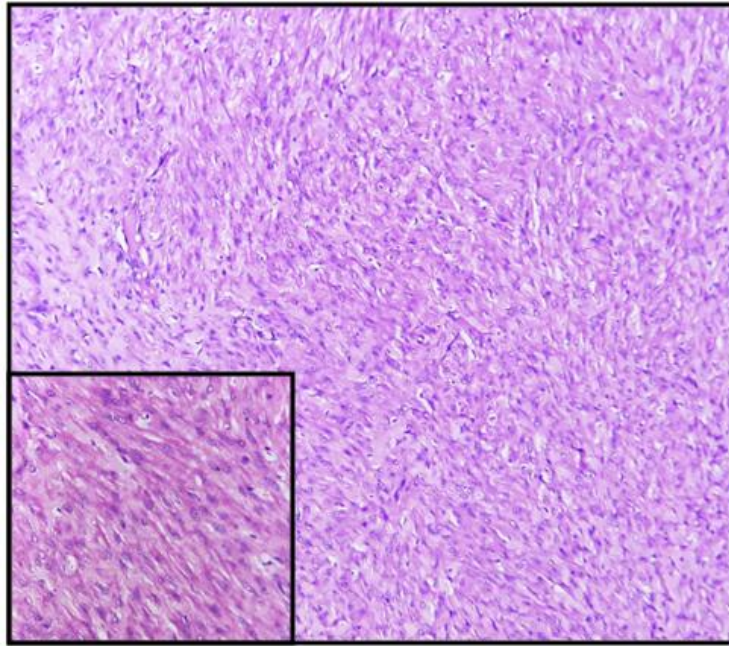


Fig.2

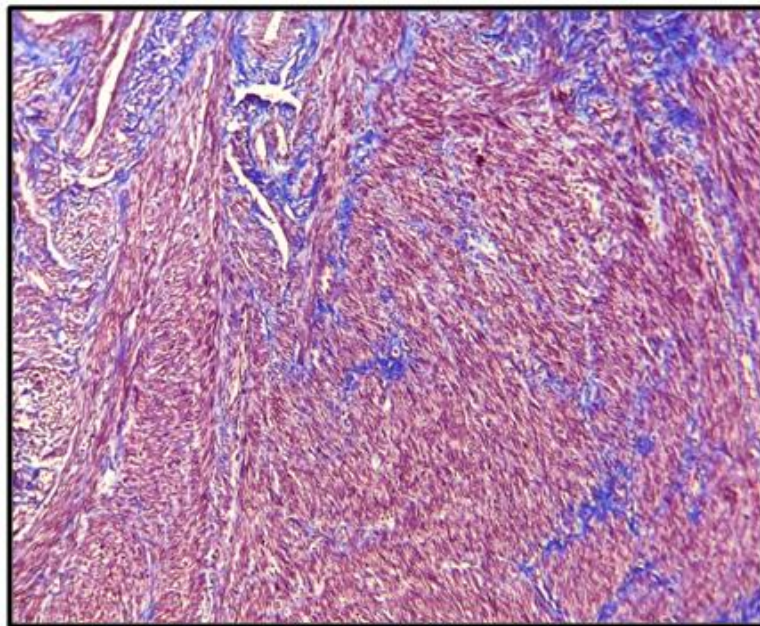


Fig.3

LEGENDS

Fig.1- An encapsulated mass measuring 2x2x1 cm. Inset shows closer view of cut surface which was grey white and firm.

Fig.2 - Microscopy shows a circumscribed neoplasm composed of short fascicles and bundles of benign spindle shaped cells. (H&E100x. Inset – H&E400x)

Fig. 3 – Masson Trichrome staining show characteristic red staining of smooth muscle bundles.

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