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REVIEW ARTICLE

URINARY BLADDER LIPOLEIOMYOMA (A RARE VARIANT OF BENIGN SPINDLE CELL TUMOUR OF URINARY BLADDER): A TONGUE-TWISTER AS A NAME AND A DIAGNOSTIC AND THERAPEUTIC DILEMMA FOR THE PRACTISING UROLOGIST

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ABSTRACT

Introduction: Spindle cell lesions of the urinary tract encompass a variety of benign and malignant tumours as well as a group of lesions of controversial nomenclature that is the subject of ongoing debate. **Case presentation:** We present a rare case report of a 35-year-old female with painless haematuria who was diagnosed with bladder mass on imaging and managed by initial transurethral resection of bladder mass which revealed Lipoleiomyoma and hence, finally managed by open surgery with resection of the bladder mass with wide margins. The final histopathological diagnosis was benign spindle cell tumour of the urinary bladder. **Conclusion:** This case illustrates the clinical presentation, diagnostic challenges, surgical management of rare histopathological variant of bladder tumour called benign spindle cell tumour in a young female.

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INTRODUCTION

Benign spindle cell tumours of the Urinary Bladder are exceptionally rare benign tumours. They present diagnostic and therapeutic challenges as there are no differentiating features to distinguish them from urothelial tumours on imaging. This case report presents a 35-year-old female with a history of recurrent episodes of painless haematuria and a recent diagnosis of bladder lipoleiomyoma, a rare benign tumour. The patient underwent diagnostic cystoscopy followed by exploratory laparotomy with cystotomy and excision of the bladder mass. Histopathological examination revealed benign spindle cell tumour of the bladder This report discusses the clinical presentation, diagnostic workup, treatment, and outcomes of the case.

Case Presentation: A 35-year-old female presented with a 2and ½ year old history of painless gross haematuria with intermittent clots. She had a past medical history significant for pulmonary tuberculosis but no other comorbidities. Laboratory investigations revealed a haemoglobin level of 6 g/dL indicative of chronic anaemia.

She underwent ultrasound which revealed a large bladder mass of size 10 cm arising from the left posterolateralwall of the urinary bladder along with blood clots. The patient was then transfused and stabilised and then further evaluated using Contrast enhanced Computerised Tomography of the abdomen and pelvis which demonstrated a 9x5x5 cm mass on the left posterolateral wall of the bladder.

Diagnostic Workup: The patient underwent diagnostic cystoscopy, which revealed a large bladder mass originating from the left posterolateral wall with a stalk. Bilateral ureteric orifices appeared normal. A representative transurethral resection of the bladder mass revealed initial diagnosis of Lipoleiomyoma of the urinary bladder.

Management: Given the large size of the bladder mass, the patient underwent an exploratory laparotomy with cystotomy and complete excision of the bladder mass. Intraoperatively, the mass was well-circumscribed and arising from the infratrigonal area on the left side. The bladder was excised with a narrow margin taking care to preserve the bladder neck.

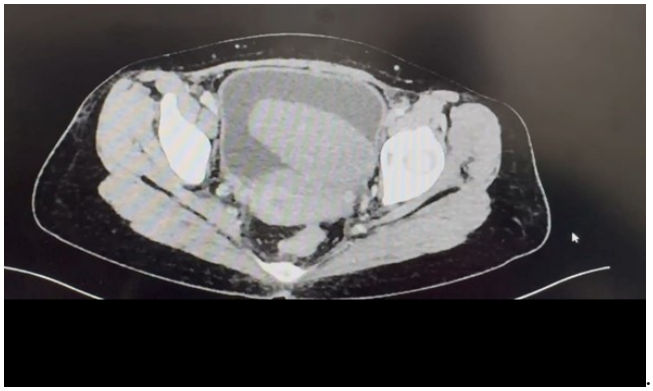

Figure 1. Contrast enhanced CT scan showing large urinary bladder mass arising from the left posterolateral wall

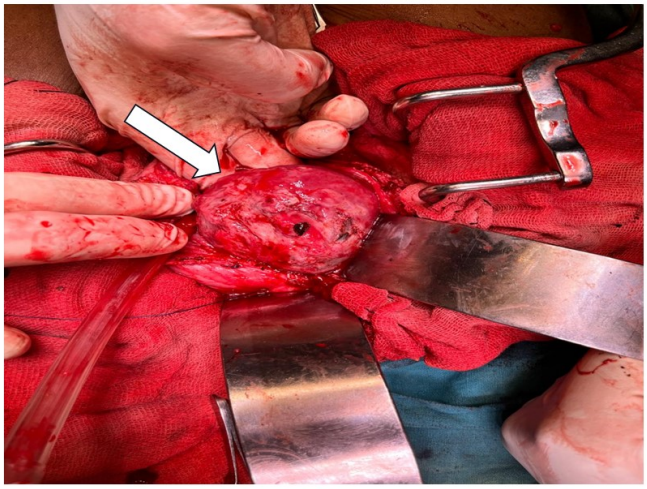

Figure 2. Intraoperative image showing Bivalved Urinary bladder with the mass arising from infratrigonal area

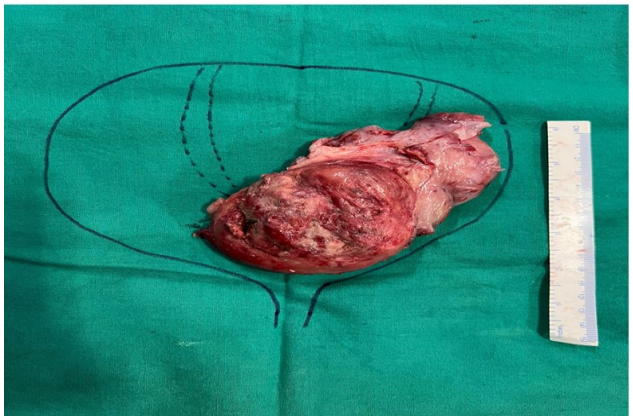

Figure 3. Clinical image of the resected Bladder mass specimen

Final Histopathological examination showed individual tumour cells as slender spindle shaped cells with uniform appearance with scant eosinophilic cytoplasm and oval to elongated nuclei with vesicular chromatin.

Outcome: Postoperative recovery was uneventful, and the patient was discharged with appropriate postoperative instructions. Histopathological analysis of the excised mass confirmed the diagnosis of benign bladder lipoleiomyoma- a rare spindle cell variant of benign urinary bladder tumour.

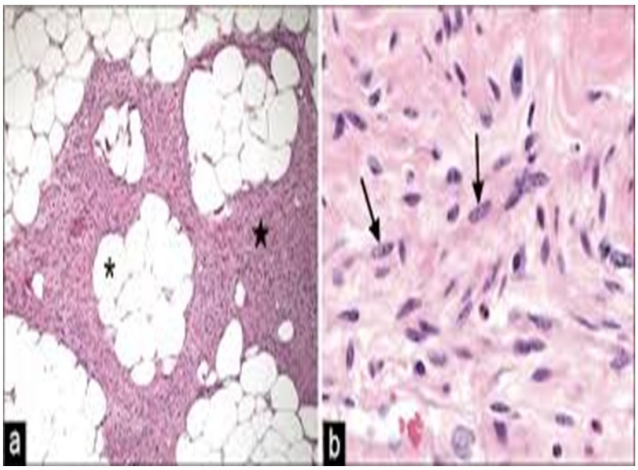

Figure 4. Microscopic Image on Histopathological examination of the resected Urinary Bladder mass showing spindle cells with interposed fat cells

Follow-up cystoscopy and imaging at 6 months showed no evidence of recurrence

DISCUSSION

Most benign spindle cell tumours of the urinary bladder are an inflammatory myofibroblastic tumour (IMT).[1] Although the urinary bladder and rarely, the ureter, are affected, this lesion has been described in numerous other locations.[2,3] Postoperative spindle cell nodule (PSCN) is usually described as histologically identical to IMT, except that a history of instrumentation or trauma to the bladder can be elicited, and plasma cells are often less prominent.[4]

Most cases of IMT of the bladder are idiopathic, but in some cases, there is a history of inflammation or irritation of the bladder.The most common presenting symptom is haematuria, followed by bladder outlet obstruction and dysuria. In a large series of 38 cases, after review and immunohistochemical workup, 17 patients had inflammatory pseudotumor (myofibroblastic tumour), patients had postoperative spindle cell nodule, and 1 patient had leiomyoma.[5] Spindle cells are without atypia and have many stromal micro vessels. On higher power, there are spindle cells without atypia, loose matrix, and frequent plasma cells—hence the synonym plasma cell granuloma, although it has been defined differently by some authors. Up to 50% of cases have muscularis propria invasion, but so do 50% of sarcomas. The degree of atypia is minimal, often with loose matrix and plasma cells.In one study, no pseudotumor recurred after transurethral resection or partial cystectomy,[5] although one patient, 5 months after transurethral resection, had a histologically identical pseudotumor that the surgeon considered residual. Rare recurrences were described in another study.[6]

CONCLUSION

This case illustrates the clinical presentation, diagnostic challenges, surgical management, and favourable outcome of bladder lipoleiomyoma which is a rare variant of benign spindle cell tumour of urinary bladder. in a young female patient. Awareness of this rare tumour is crucial for timely diagnosis and appropriate management, ensuring optimal patient outcomes.

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