Case Report

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Isolated Primary Schwannoma of Urinary Bladder

Surgery Section

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ABSTRACT

Primary schwannoma of urinary bladder is a very rare tumour. It usually occurs in association with Von Recklinghausen's disease. It arises from Schwann's cells in the nerve sheath. We report here a very rare case of primary schwannoma of urinary bladder managed by complete transurethral resection.

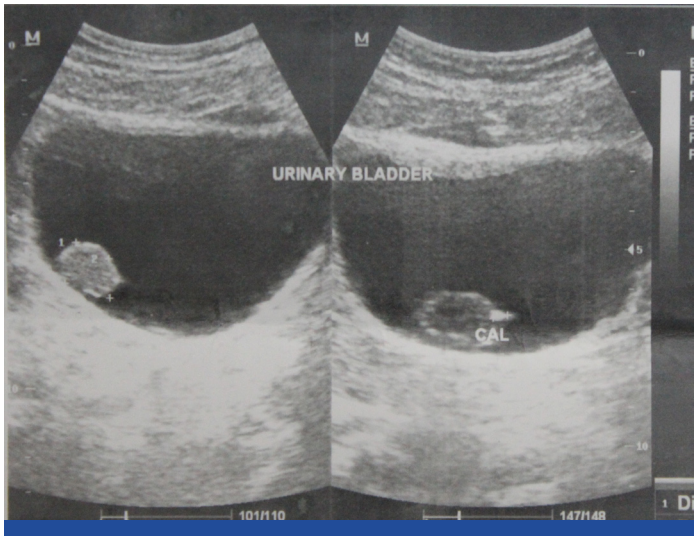
Keywords: Bladder tumour, Bladder schwannoma, Neurofibromatosis

CASE REPORT

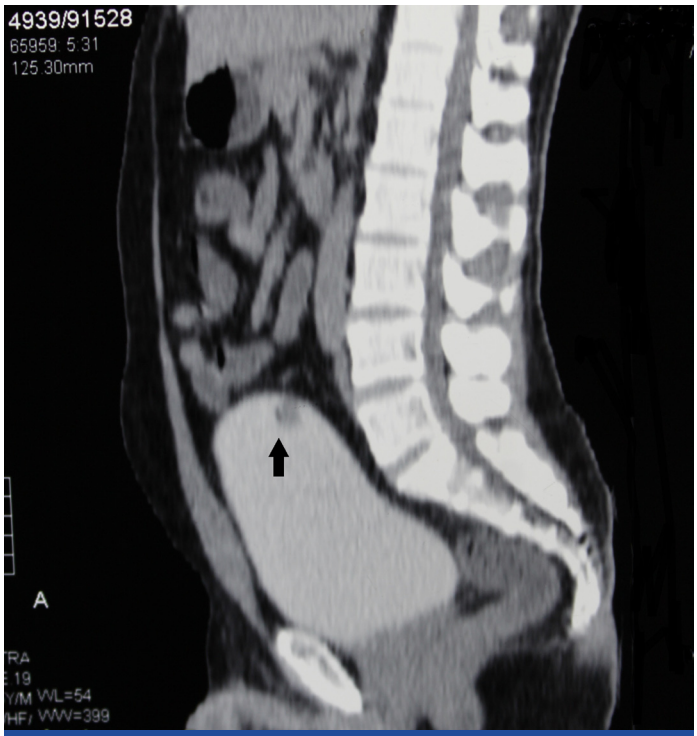
A 45-year-old male patient presented with history of painless haematuria without clots of two months duration. Clinical examination was normal. Ultrasonography of abdomen showed a minimally calcified polypoidal lesion in the urinary bladder [Table/Fig-1]. Contrast enhanced computed tomography revealed mildly enhancing well defined polypoidal soft tissue lesion of size 1 x 1.6 cm arising from dome of the urinary bladder [Table/Fig-2]. Complete transurethral resection of the bladder tumour was performed. Histopathology proved it to be spindle cell neoplasm, possibly benign. Haematoxylin & Eosin staining showed spindle cells with densely cellular 'Antoni A' areas and loose hypocellular 'Antoni B' areas [Table/Fig-3]. Immuno-histochemical studies showed positivity for Vimentin and S-100 [Table/Fig-4] suggesting spindle cell neoplasm with neural differentiation. Final histopathological diagnosis was Schwannoma with degenerative changes. After 9 months of follow-up patient is symptom free and there was no evidence of any residual/ recurrent tumour.

DISCUSSION

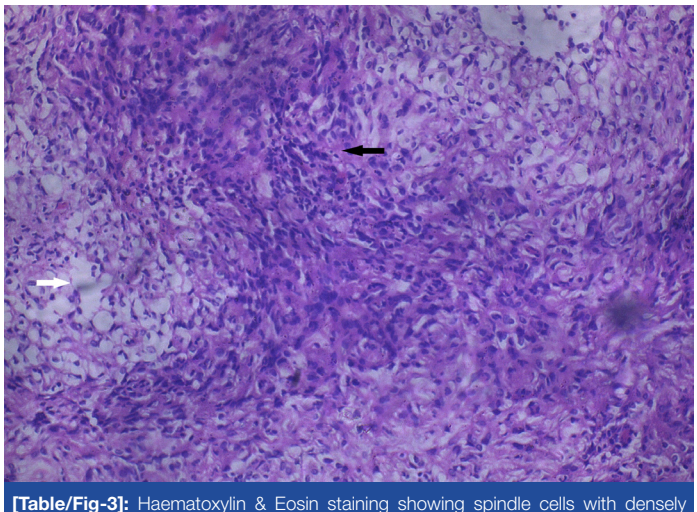
Primary Schwannoma of urinary bladder is a very rare tumor, which may be benign or malignant. It can occur in any part of the body where nerve sheath is present. They usually occur in patients with Von Recklinghausen's disease [1]. Isolated primary Schwannoma of urinary bladder is a very rare occurrence. It represents < 0.1 % of all bladder tumours [2]. In the English literature only about 6



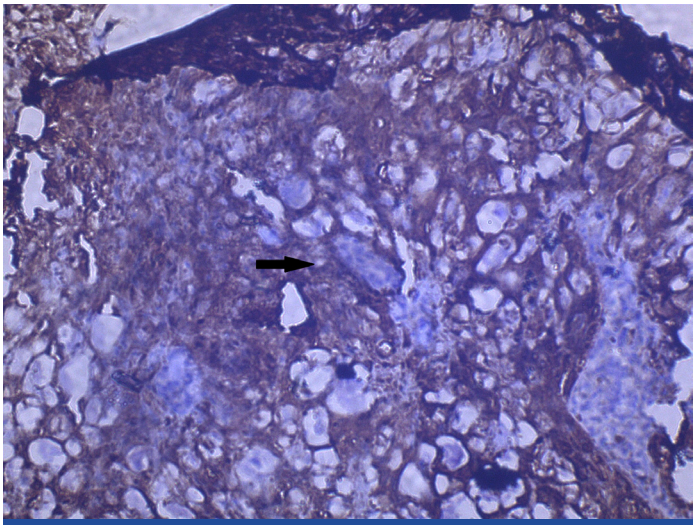
[Table/Fig-1]: Ultrasonography of bladder showing calcified solid tumour arising from the dome.



[Table/Fig-2]: Contrast-enhanced computed tomography image of abdomen (Sagittal view) showing solid tumour (black arrow) arising from dome of the urinary bladder.



[Table/Fig-3]: Haematoxylin & Eosin staining showing spindle cells with densely cellular 'Antoni A' areas (Black arrow) and loose hypocellular 'Antoni B' areas (White arrow). Magnification 20X.



[Table/Fig-4]: Immunohistochemistry staining with S-100 shows tumour spindle cells staining strongly positive for S-100. (Black arrow) Magnification 20X.

No.	Authors	Age/sex	presentation	Management
1	NG K J et al., [3]	88/F	LUTS *	Biopsy only
2	Cummings JM et al., [1]	58/F	LUTS *	Partial cystectomy
3	Geol Huh et al., [4]	35/M	LUTS *	Partial cystectomy
4	Gafson I et al., [5]	52/F	Pain abdomen, LUTS	Partial cystectomy
5	Mosier AD et al., [6]	31/M	Haematuria	Partial cystectomy
6	Mazdar Adil et al., [2]	50/F	Haematuria	TURBT **

[Table/Fig-5]: Showing the previously reported cases of isolated primary schwanomma of urinary bladder, their presentation and management [1-6].
*LUTS- lower urinary tract symptoms, **TURBT- transurethral resection of bladder tumour

cases have been reported till date [Table/Fig 5] [1-6]. We here in report the first case so far in India.

Isolated urinary bladder schwannoma occur most commonly in the 4th to 6th decade of life. They are usually benign and malignant variants have also been described. It may present with haematuria, Lower Urinary Tract Symptoms (LUTS) and suprapubic discomfort. Diagnosis is made primarily by histopathological examination and immunohistochemistry. It is mostly treated by partial cystectomy.

Imaging studies like ultrasound, CECT or MRI can detect the bladder mass but cannot differentiate it from other common urinary bladder tumours like urothelial cancers. In previously reported cases, the tumours arose from lateral wall or neck of the urinary bladder. In the present case, the tumour was seen arising from dome of the urinary bladder as a pedunculated mass. Diagnosis of schwannoma was established by histopathological examination and immunohistochemistry with S-100. 'Antony A' and 'Antony B' areas with Positive S-100 staining is a pathognomonic for schwannoma [7].

Various modalities of treatment like partial cystectomy, transurethral resection, observation, radiotherapy have been described. Being a benign tumour, these are treated conservatively. In almost all the cases described in English literature, partial cystectomy was done. In our case, complete transurethral resection was done as the tumour was small. Follow up at 3 and 9 months, patient remained asymptomatic and there was no evidence of recurrence.

CONCLUSION

Isolated primary schwannoma of urinary bladder is a very rare occurrence with only a few cases reported. Diagnosis is by histopathological examination and immunohistochemistry. Optimal management is by partial cystectomy or TURBT. In case of TURBT strict follow up is necessary.

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