



LEIOMYOMA OF THE URINARY BLADDER IN A MALE PATIENT: A CASE REPORT

Urology

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ABSTRACT

Leiomyomas of urinary bladder are rare benign mesenchymal tumors with incidence of about 0.43% of all bladder tumors. Based on their location, these tumors can be endovesical, extravesical, and intramural with the endovesical subtype being the most common. There are roughly 250 cases of bladder leiomyoma reported till date. In the following case report, we discuss the rare case of a bladder leiomyoma in a elderly male patient presenting with gross hematuria and managed with TURBT.

KEYWORDS

Leiomyoma, TURBT

INTRODUCTION

Mesenchymal tumours comprises 1–5% of all urinary bladder tumours. Among Mesenchymal tumours, leiomyomas are the most common benign mesenchymal tumours in the bladder and account for 0.43% of all bladder tumours [1]. Leiomyomas of the urinary bladder are very rare neoplasms, with only approximately 250 cases previously reported. We report a case of leiomyoma of bladder in a 76 yr old male patient.

Case Report

A 76 Year old male without any comorbidity presented to urology OPD with chief complains of gross hematuria, urinary frequency and nocturia. Abdominal examination of patient was normal. On DRE, grade I, firm, non-tender prostate present. Rest of the pelvic examination was normal. Patient was asked to do routine investigations and ultrasonography. Urine routine examination showed full field RBC's. Urine culture was sterile. Rest of the routine investigations were normal. On ultrasonography, 3.7cm x 3.1cm x 3.5cm size well defined rounded hypoechoic lesion was noted arising from posterior wall of urinary bladder.

Computed tomography was suggestive of well defined heterogeneously enhancing solid mass lesion of 30x33x28 mm arising from posterior wall of urinary bladder. Bilateral VUJ was normal with no evidence of extra vesicular extension.

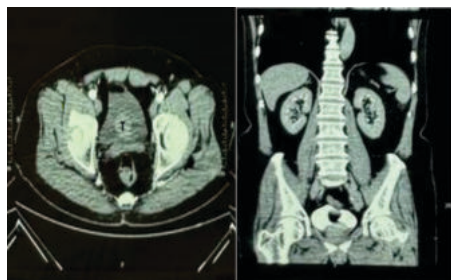


Figure 1: Axial view of CT Urography (image 1) showing well defined solid mass lesion (T) arising from posterior wall of urinary bladder. Coronal view (image 2) of excretory phase showing bladder mass with bilateral normal excretory kidneys.

Patient underwent cystoscopy which revealed 4cm x 3cm x 3cm size single rounded intraluminal mass arising from posterior wall of urinary bladder. Bilateral VUJ appeared normal. TURBT of bladder mass was done. Sample sent for histopathological examination. Histopathology report was suggestive of leiomyoma.

DISCUSSION

Leiomyomas of the bladder are rare smooth muscle tumors that have been reported primarily in women of childbearing age [2]. On contrary, we had old age male patient diagnosed with leiomyoma of urinary

bladder. The etiology is poorly understood given their rarity, however, hormonal imbalances or chronic detrusor irritation are speculated. Morphologically, leiomyomas of the bladder can have a predominant endovesical, intramural, or extravesical pattern of growth. The endovesical form has been reported in 63%, extravesical in 30%, and intramural in 7% of cases [2]. In this case patient had endovesical bladder tumor with no extravesical extension.

Knoll et al found that irritative voiding symptoms were the most common presenting symptom [2]. Goluboff et al in his review of literature stated that obstructive/voiding symptoms were the most common presenting patient complaint (49%). Of the remaining patients, 38% presented with irritative symptoms, 11% with hematuria, and 19% were asymptomatic [3]. Our patient presented with chief complain of gross hematuria.

Ultrasonography should be used initially and will typically detect a smooth walled solid lesion with homogenous texture. Therefore, USG has been reported as the initial and affordable of the diagnostic tests.

However, Ultrasonography currently seems to have been replaced by CT and MRI for a better assessment of the delineation planes and the sites of origin. Computed Tomography generally shows a smooth walled bladder filling defect with an attenuation coefficient of 25–50 Hounsfield units. But no imaging modality is diagnostic of leiomyoma preoperatively.

In the series of Kabalin et al. [4] and Chavez and Neto [5], among the 35 patients who had the bladder leiomyoma excised, only two patients presented with residual tumour and needed a re-excision. This low re-intervention rate suggests that regardless of the excisional method, bladder leiomyoma is adequately and easily treated, with almost no recurrence when fully resected. As a general rule, small endovesical bladder leiomyomas usually can be treated by TURBT, while larger intramural or extravesical ones are treated by open surgical resection.

Our patient had no recurrence during follow up (follow up period 6 months).

Pathologic and immunohistochemical findings of urinary leiomyomas are similar to uterine leiomyomas, which suggests hormonal influences as cofactors for the development of these tumors.

CONCLUSION

Bladder leiomyoma is uncommon benign tumor of urinary bladder. Detailed history and thorough physical examination should be done when patient present with prolonged history of lower urinary tract symptoms. Women is more commonly affected and usually present with obstructing urinary symptoms. But in our case he was old age male patient who presented with chief complain of gross hematuria.

Evaluation should include USG and CT scan to determine location and

local extension of tumor. But no imaging modalities available are confirmatory of leiomyoma of bladder. Final diagnosis is done on histopathological examination.

As the Endovesical is the most common type, TURBT is the main stay of therapy. If tumor is large or intramural or extravesical, partial cystectomy should be considered. When excision is wide enough, it is associated with low recurrence rate conforming benign nature of leiomyoma and its excellent prognosis.

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