

URINARY BLADDER LEIOMYOMA – A RARE CASE REPORT

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Abstract

A rare case of urinary bladder leiomyoma in a female patient is presented here. A quarter of these cases are asymptomatic only to be diagnosed by ultrasonography. Symptomatic cases are also misleading as in this case. Laparotomy, removal of mass and ultimately histopathology proved the case to be that of a urinary bladder leiomyoma.

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Case summary

A 30 year old female was admitted with hematuria to our hospital (Tawau General Hospital, TGH, Sabah, Malaysia) in February 2004. She had been complaining of frequency, urgency and sometimes mild dysuria for three months, and treated with several courses of antibiotics with no success. Physical examination was inconclusive. Ultrasonography showed a smooth solid mass in the posterior bladder wall protruding into the lumen, with peripheral hyperechogenicity. She underwent a cystoscopy that suggested a round mass protruding from outside the bladder through the posterior wall. A computed tomography (CT) scan of the abdomen showed a homogenously enhancing mass with smooth borders very close to the posterior wall of the basal aspect of the urinary bladder where it was ill defined with the uterine anterior border.

Impression was that of a benign mass lesion from the urinary bladder. But a sub-serosal type of uterine leiomyoma protruding into the posterior wall of bladder could not be ruled out. A laparotomy was performed. During laparotomy no definite mass was noted outside the bladder but a strong adhesion to the posterior bladder wall was detected. The surgeon was requested to open the bladder lumen to take out the mass completely. Histopathology determined the mass to be that of a urinary bladder leiomyoma.

Discussion

Benign mesenchymal tumours of the bladder are rare, accounting for 1 to 5% of bladder neoplasms.¹ Leiomyomas represent the largest subgroup of these tumours and occurs more frequently in women.² Any layer of the bladder wall may be affected and according to their position can be categorized as endovesical, intramural and extravesical, occurring with a frequency of 52%, 31% and 17% respectively.³

A quarter of these tumours are diagnosed in asymptomatic patients usually by ultrasound.³ The majority of the symptomatic patients will report filling symptoms, and a considerable number will also have voiding symptoms that can simulate cystitis. Only 11 to 20% of patients will have hematuria which was present in our case.^{2,3} The appearance of these tumours on ultrasound, mainly those with endovesical growth, is very characteristic. They appear as a homogenous smooth mass with peripheral hyperechogenicity.^{4,5} Computed tomography scans can precisely locate these tumours, but are inadequate to identify the liquid or solid nature of the lesion, and its relation with surrounding structures. On the other hand, MRI can show more specific signs of a mesenchymal tumour and clearly depict its relation to the bladder wall.⁶ However, no imaging technique can safely exclude malignancy. Histological characterization should always be attempted prior to invasive therapeutic procedures.

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Although bladder leiomyomas are rare, they should not be discarded in patients with a prolonged history of urinary tract symptoms. In symptomatic patients surgery is a very effective treatment, associated with low morbidity, rapid relief of symptoms and very high cure rate.

In conclusion the imaging features like smooth filling defect at IVU and smooth outline at CT scan together with the submucosal location with intact mucosa and low intensity signal on T2 weighted image at MRI, all contribute to the diagnosis of these rare tumours.⁷

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