A Case of Asymptomatic Submucosal-Type Leiomyoma of the Urinary Bladder Correctly Diagnosed with Magnetic Resonance Imaging (MRI) and Successfully Treated by Transurethral Resection

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Abstract: Routine medical checkup is common in Japanese society. We report a case of asymptomatic bladder leiomyoma incidentally detected by the routine medical checkup ultrasonography for employee and diagnosed by typical findings of magnetic resonance imaging (MRI). Under diagnosis of submucosal leiomyoma of the urinary bladder, transurethral resection was the choice of treatment, and was successfully performed.

Key words: bladder leiomyoma, urinary bladder, magnetic resonance imaging (MRI), transurethral resection (TUR)

INTRODUCTION

Leiomyoma of the bladder is a rare benign mesenchymal tumor. About 150 cases have been referred in a Japanese literature1). According to the report1), some recent cases have been incidentally detected by the prevailing medical checkup ultrasonography. We report a case of bladder leiomyoma which was detected by a medical checkup for employee and correctly evaluated with preoperative magnetic resonance imaging, resecting in successful treatment with careful transurethral resection.

CASE REPORT

A 47-year-old man was referred to our hospital because he had been found to have an asymptomatic solid mass in the bladder wall by a routine medical checkup ultrasonography for employee in January, 2004. Urinalysis revealed slight microscopic hematuria without abnormal urine cytology. Abdominal ultrasonography showed a 2 cm-diameter-tumor, in the left lateral wall of the bladder (Fig. 1). Cystoscopy con-
firmed a smooth, 2 × 2 cm mass protruding into the bladder, with the overlying normal looking mucosa. Computerized tomography showed a 2 cm-diameter-solid mass and homogenous appearance at the left-anterolateral wall of the urinary bladder. T1-weighted images and T2-weighted images revealed homogenous median and low intensity urinary bladder tumor of 2 cm in diameter, respectively (Figs 2,3). Then, superficial and careful resection was successfully performed. Pathological evaluation showed benign smooth muscle bundles consistent with leiomyoma, and no mitotic or proliferative changes (Fig 4). The patient remains asymptomatic with normal voiding and there has been no evidence of recurrence for 13 months after operation.

DISCUSSION

Bladder leiomyomas are usually asymptomatic, but can cause storage or voiding symp-
toms apart from hematuria\(^2\). Although rarely encountered, they are the most common benign disease of mesenchymal bladder tumor. MRI of the bladder is useful in the diagnosis of this disease\(^3\). In the present case, MRI showed a homogenous low signal intensity area on T2-weighted images, with median intensity area on T1-weighted images. These MRI findings are usually compatible to the findings of urethral leiomyomas\(^3,4\). The size of the tumor may be a key factor for the choice of treatment. The average tumor diameter of the 13 cases with complete removal by transurethral resection in Japan was 17.8 mm\(^5\). In the present case, the tumor was 2 cm in diameter, hence we evaluated that complete resection of the tumor was possible and the resection of the tumor was successfully performed. Conservative treatment as transurethral resection may be recommended as a safe, definitive way to treat small bladder leiomyomas, because recurrence of the leiomyoma is very rare.

REFERENCES