Pseudosarcomatous Myofibroblastic Proliferation of the Urinary Bladder

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Pseudosarcomatous myofibroblastic proliferation (PMP) of the bladder is a rare, benign, and proliferative lesion of the submucosal stroma. We report a 38-year-old female patient who was initially diagnosed with urothelial carcinoma of the urinary bladder under intravenous pyelography. Bladder tumor was resected by the transurethral method, and pathology disclosed a picture compatible with pseudosarcomatous myofibroblastic proliferation. However, local recurrence was found 2 months later, and tumor resection was performed again. The patient has been followed-up at our outpatient department for a year without any evidence of recurrence. [*J Chin Med Assoc* 2008;71(8):431–434]

Key Words: pseudosarcomatous myofibroblastic proliferation, urinary bladder

Introduction

Pseudosarcomatous myofibroblastic proliferation (PMP) of the bladder has been described by many. Roth[1] first described the lesion as a reactive pseudosarcomatous response in 1980. In the past, these lesions have often been initially misdiagnosed as malignancies such as sarcomatoid urothelial carcinoma, leiomyosarcoma, and rhabdomyosarcoma. The patient with PMP presents with symptoms that include urgency, urinary frequency, dysuria and hematuria, urinary obstruction, and pelvic pain.[2] These tumors can occur at any age, but are usually seen in young adults.[3,4] PMP usually appears as a polypoid or nodular, sometimes ulcerated, exophytic mass with broad attachment to the bladder wall.[2,4] Treatment usually consists of transurethral resection or partial cystectomy.[4] PMP can grow extensively through the muscularis propria to invade the perivesicular adipose tissues, peritoneum, and omentum.[4] Recurrence has recently been reported in 3 cases,[4] but it has not been reported to metastasize.[4,5] We present a female with recurrent PMP of the urinary bladder and review the literature.

Case Report

A 38-year-old woman had sudden onset of gross hematuria for 1 day, and intravenous pyelography showed a large filling defect on the lateral wall of the urinary bladder (Figure 1). Cystoscopy showed a large ovoid tumor on the left lateral wall of the urinary bladder near the left ureteral orifice. Then, abdominal computed tomography was arranged and disclosed a 5.6×3.5-cm mass lesion on the left posterior wall of the urinary bladder with muscle layer invasion, but no lymph node lesion was noted (Figure 2). Initially, urothelial carcinoma or tumor of other pathology was suspected. Transurethral resection of bladder tumor (TURBT) was performed, and pathology disclosed a picture of spindle cell proliferation in the submucosal and mucosal layers of the urinary bladder. The cellular proliferation was associated with mild nuclear atypia and eosinophilic cytoplasm within a fibrillary or myxoid background (Figure 3). It was compatible with PMP.

Cystoscopy was performed again 2 months later due to gross hematuria. Local recurrence was found (Figure 4), and TURBT was performed again. The

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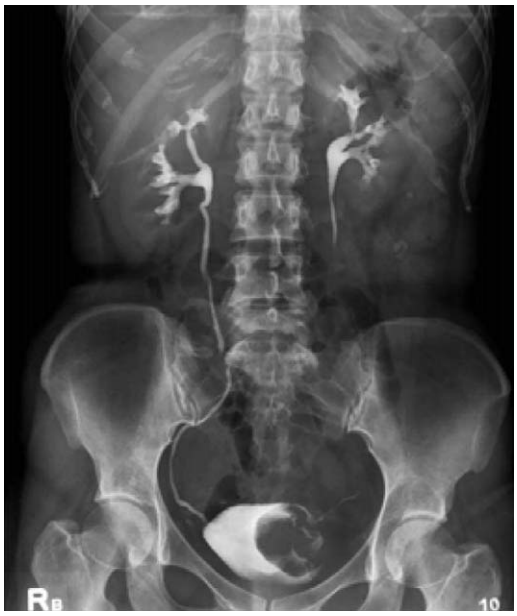

Figure 1. Intravenous pyelography revealed an ovoid large filling defect on the left lateral wall of the urinary bladder.

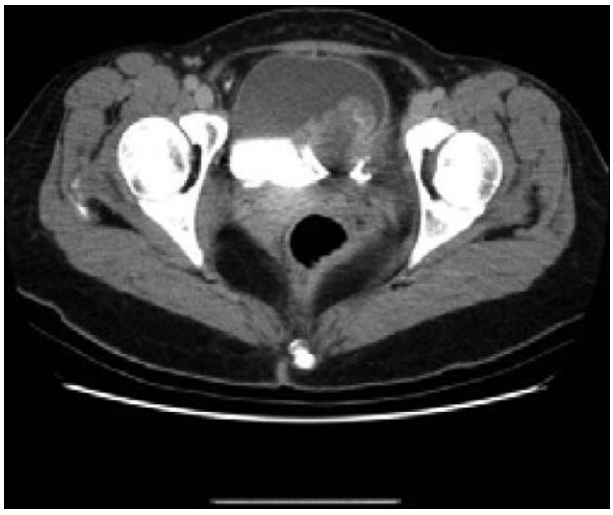

Figure 2. Computed tomography showed a 5.6 × 3.5-cm mass lesion on the lateral posterior wall of the urinary bladder.

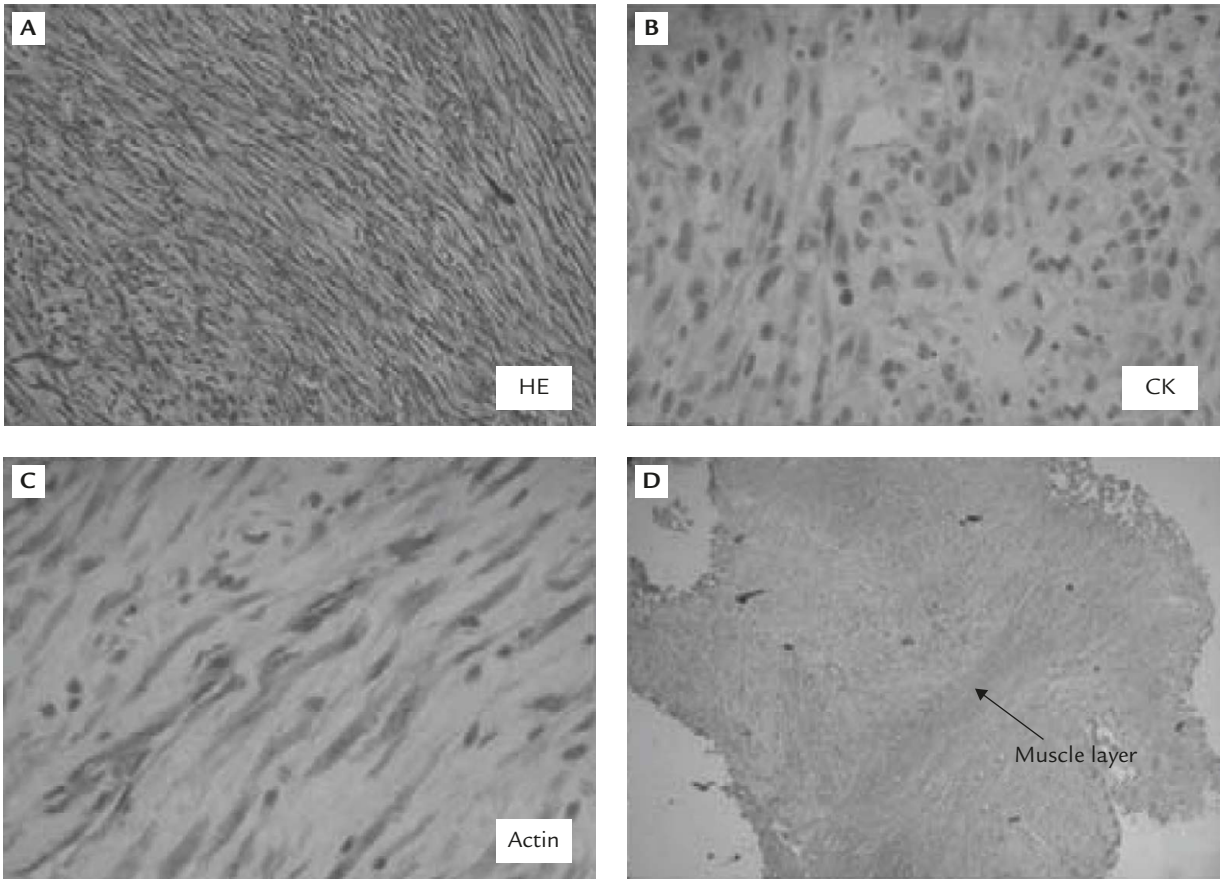

Figure 3. (A) Spindle cell proliferation in the submucosa and mucosa with mild nuclear atypia and eosinophilic cytoplasm within fibrillary or myxoid background was observed (hematoxylin & eosin, 100×). The cells were weakly positive for: (B) cytokeratin and (C) smooth muscle actin. (D) The tumor did not involve the muscle layer (arrow).