

Case Report

Rhabdomyosarcoma of the Urinary Bladder in an Adult

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ABSTRACT

Rhabdomyosarcoma (RMS) of the urinary bladder is extremely rare in adults. This report documents a case of an embryonal RMS in a 77-year-old man with hematuria in Kuwait. He declined radiotherapy after a transurethral

resection of the tumor but remained asymptomatic until his death from pre-existing cardiac disease eight months later. This is the second case of RMS of the urinary bladder diagnosed in an adult in Kuwait over a 30-year period.

KEY WORDS: adult rhabdomyosarcoma, hematuria, urinary bladder

INTRODUCTION

Rhabdomyosarcoma (RMS) in childhood is relatively common in soft tissue but infrequent in the urinary bladder^[1]. Literature review indicates that RMS of the urinary bladder is rare in adults^[2,3]. Between 1974 and 2003, six cases of RMS of the urinary bladder were registered in the Cancer Registry of Kuwait Cancer Control Center. Most patients (4/6) were in the 2-5 year age group. The remaining two patients were 16 and 45 years old respectively.

The objective of this report is to document a case of RMS of the urinary bladder in a 77-year-old Kuwaiti male. This brings to two, the total number of cases of urinary bladder RMS seen in adults in Kuwait over a 30-year period.

CASE REPORT

A 77-year-old male Kuwaiti was admitted in Al-Sabah hospital in January 2004 with a two-week history of frank hematuria, nocturia, frequency of micturition, pain in the penile shaft, dribbling and interruption of urine during micturition. His medical history revealed that he was a diabetic on medical treatment. He had undergone previous cardiac surgery rendering him a grade IV risk for surgery. Both physical and laboratory examinations were essentially normal. Both ultrasonogram (Fig. 1) and computed tomography (CT) of the pelvis (Fig. 2) demonstrated a huge bladder mass and a normal prostate gland. Subsequent cystoscopy detected a partly necrotic tumor on the dome of the

urinary bladder. Transurethral resection (TUR) of most of the tumor was done. The tumor base was fulgurated but not resected for fear of perforation. Initial outflow from irrigation was smoky but became clear after two days. Postoperative recovery in the Intensive Care Unit (ICU) was uneventful and patient was discharged home in good condition.

Five weeks after the initial surgery, another TUR of the tumor was done. The patient refused radiotherapy and chemotherapy but was asymptomatic until he died eight months later from his cardiac problems.

Pathology

The first specimen consisted of 98 gm of multiple pieces of gray brown tissue measuring 8 x 7 x 6 cm. The second weighed 26 gm and measured 7 x 7 x 1.5 cm. Microscopically, both showed a richly vascular tumor, which had reached the muscular coat and had extensive necrosis, hemorrhage and frequent mitosis. Most tumor cells had round to oval or elongated nuclei and a variable amount of cytoplasm (Fig. 3). They were positive for desmin (Fig. 4), but negative for leukocyte common antigen, cytokeratin, epithelial membrane antigen, chromogranin, synaptophysin and HMB-45. A pathological diagnosis of embryonal rhabdomyosarcoma was made.

DISCUSSION

Reports in English literature suggest that the present case is probably the oldest patient with

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Fig. 1: Preoperative U/S showing huge urinary bladder tumor located at the dome

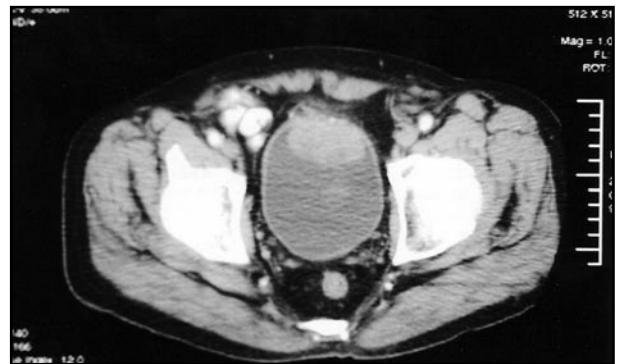


Fig. 2: Preoperative CT scan showing huge urinary bladder tumor located at the dome

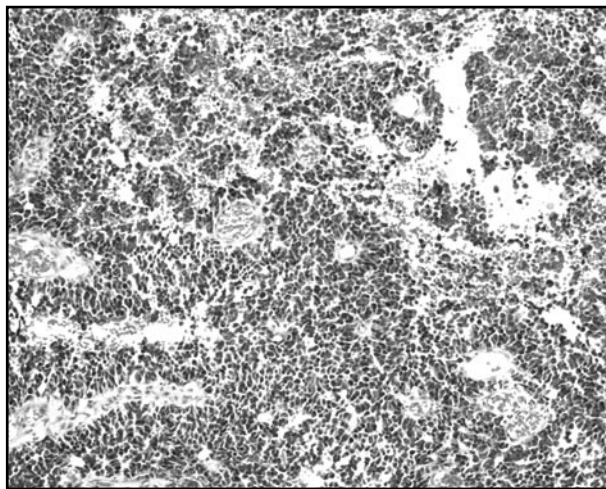


Fig. 3: Malignant small round cell tumor (H &E X 100)

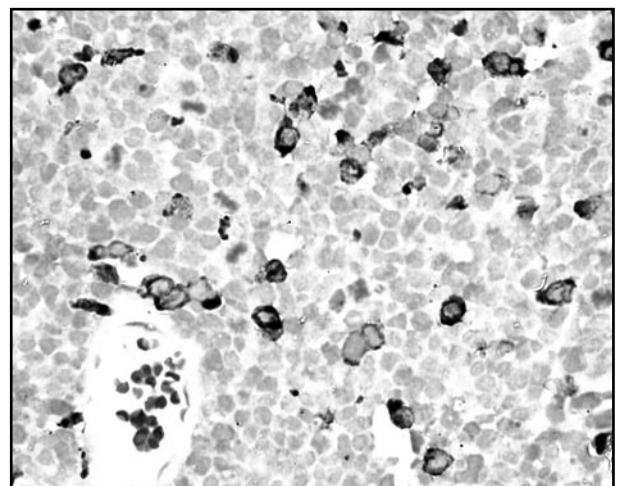


Fig. 4: Scattered cells are positive for desmin (Immunoperoxidase X 200)

RMS of the urinary bladder. Also, there is evidence that unrecognized urinary bladder RMS can disseminate^[4]. In the present case, the tumor was confined to the bladder wall.

The paucity of reported cases of RMS in literature attests to its rare occurrence.

This rarity has not facilitated the establishment of a uniform staging or treatment protocol. While some have been successfully treated by TUR, others have had total cystectomy and chemotherapy. Remarkably, Henriksson *et al* successfully managed a large RMS of the urinary bladder in a 56-year-old woman by TUR^[5,6]. Age, co-existence of other diseases, especially in elderly patients, and extent of the disease may influence choice of treatment modality. In the present case, age and pre-existing cardiac problems were limiting factors in the choice of TUR as the only treatment modality.

Unfortunately, the effectiveness of this could not be evaluated, since the patient died eight months later from his cardiac problems.

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