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Malignant Myofibroblastoma of the Bladder: a Case Report

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Case Report

In July 2006, a 32-year old female patient was found to have a 3 ×3 cm^2 neoplasm in the left lateral wall of her bladder. There was superficial necrosis and bleeding. Previously she had received a cystoscopy in another hospital because of painless gross hematuria and anemia. A partial resection of the bladder was conducted because attempts of medical hemostasis were unsatisfactory. Pathological examination indicated that the lesion was a spindle cell tumor of the bladder (Fig.1). Since the tumor cells had encroached into the smooth muscle, there was extensive cellular proliferation in the muscle layer and pathologic karyokinesis could be seen, suggestive of a malignant myofibroblastoma. The lateral and basilar cutting edges were positive.

An immunohistochemical assay indicated the following: vimentin (-), CK (+/-), SMA (-), SA (-), myoglobin (-), CD117 (-), s-100 (-), AE1/AE3 (-), desmin (-) (internal positive control). Based on the consultative advice from our Pathology Department, the tumor was identified as a malignant myofibroblastoma. The results were as follows, after immunohistochemical assay: desmin(+), actin (+).

On the 31st of August, 2006, because of a very high degree of tumor malignancy, the patient underwent a total cystectomy with an ileum substitute. Her hematuria disappeared after the operation, and blood hemoglobin levels returned to normal. Then a four-field radiotherapy on the pelvic cavity was conducted and postoperative adjuvant chemotherapy administered. At present, the patient is alive and well, without a recurrence or metastasis.

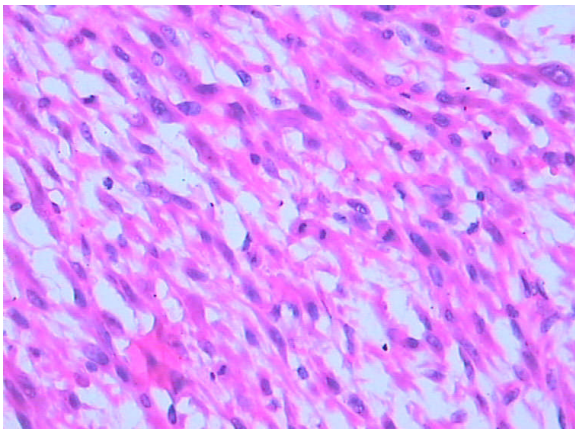

Fig.1. Malignant myofibroblastoma (H&E ×200).

Discussion

Myofibroblasts were identified by Majno et al.[1] in 1971, and it was shown to exist in many organs. A myofibroblastoma is a tumor which consists of or is mainly composed of the myofibroblasts[2].A case of this disease was first reported in Beijing in the 1980s. Because of its low incidence, unclear histogenesis and a variety of histopathological changes, this tumor has had several names in the past[3,4]. Myofibroblastomas are usually found in young or middle-aged people, with no specific sex difference. About 20% to 25% of the cases occur in the head and neck, so, reports of urocystic cases are rare in both China and overseas. Clinical manifestations include a lump, regional invasion, fervescence, weight loss and pain, etc. Laboratory examinations reveal anemia and blood sedimentation mass. For those with a celiac or retroperitoneal tumor, there are numerous blood vessels in the tumor which is closely connected to peripheral tissues. Final diagnosis relies on a pathological examination, since an imaging examination lacks specificity. There might be a local recurrence after treatment, with occasional metastasis. Excision is the major treatment of choice for this disease[2]. The nature of benign myofibroblastoma remains controversial at present. This disease should be differentiated from fibromatosis, malignant fibrous histiocytoma, leiomyosarcoma, sarcomatoid mesothelioma and indurative lymphoma etc.

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