



Original Contribution

HAEMANGIOMA OF THE URINARY BLADDER: A RARE CASE REPORT

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ABSTRACT

Haemangioma of the urinary bladder is a rare vascular tumor with a benign nature and a very wide age range. It accounts only 0.6% of bladder neoplasms and is therefore quite infrequently discussed in literature. It is also seen more often among men than among women. Histologically classified as cavernous, capillary or arteriovenous, this lesion resembles haemangiomas at any other site of the human body. Clinically manifested with painless haematuria haemangioma of the urinary bladder is undoubtedly of a huge clinical importance as one of the benign causes of bleeding in the urinary tract.

We report a case of bladder haemangioma in a 64-year-old man presented to the hospital with dysuria. Pathologic examination of the bladder biopsy revealed typical histological features of haemangioma. In particular, lined by endothelial tumor cells cavernous spaces filled with blood and surrounded by fibrous tissue.

After the histological examination of the taken biopsy, the patient was diagnosed with haemangioma of the urinary bladder, cavernous type.

Key words: haemangioma of the urinary bladder, benign vascular neoplasm, rare tumor, cavernous haemangioma, bladder tumor

INTRODUCTION

Haemangioma of the urinary bladder is a rare vascular tumor with a benign nature and a very wide age range (1, 2, 3). It accounts only 0.6% of bladder neoplasms and is therefore quite infrequently discussed in literature (4). It is also seen more often among men than among women (2, 5). Histologically classified as cavernous, capillary or arteriovenous, this lesion resembles haemangiomas at any other site of the human body (1). Clinically manifested with painless haematuria, vesical haemangioma is undoubtedly of a huge clinical importance as one of the benign causes of bleeding in the urinary tract (2, 4, 3). We report a case of a 64-year-old man presented to the hospital with dysuria and pollakiuria. After the histologic examination of the taken biopsy, the patient was diagnosed with haemangioma of the urinary bladder, cavernous type.

CASE PRESENTATION

A 64-year-old man was referred to the urology

clinic for the evaluation of dysuria and pollakiuria. The patient was afebrile and his blood and urine tests results were within normal ranges. However, the imaging methods proved the presence of an abnormal mass in the trigone of the bladder. It was decided by urologists to perform a transurethral resection, both to diagnose the lesion and to remove abnormal tissue from the organ. As a result, approximately 70 grams of the tumor material was evacuated from the bladder and sent to the pathology department. Histologic examination of the resection material revealed typical features of cavernous haemangioma. In particular, lined by endothelial tumor cells cavernous spaces filled with blood and surrounded by fibrous tissue. In addition, some of the dilated and deformed blood vessels were completely occluded by thrombi or partially occluded by recanalised thrombi (**Figure 1**). While endothelial cells showed no signs of atypia, no mitoses were found and the expression of the Ki-67 appeared to be negative, hyperplasia of the surrounding stroma was present, accompanied by several zones of necrosis and haemorrhages. Further histologic examination revealed that the endothelium was positive for CD34 (**Figure 2**) and CD99 (**Figure 3**) markers. While the

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stromal cells were diffusely expressing Vimentin (**Figure 4**) and partially expressing SMA (**Figure 5**). All these helped to prove the

haemangioma diagnosis and to differentiate it from other vesical tumors.

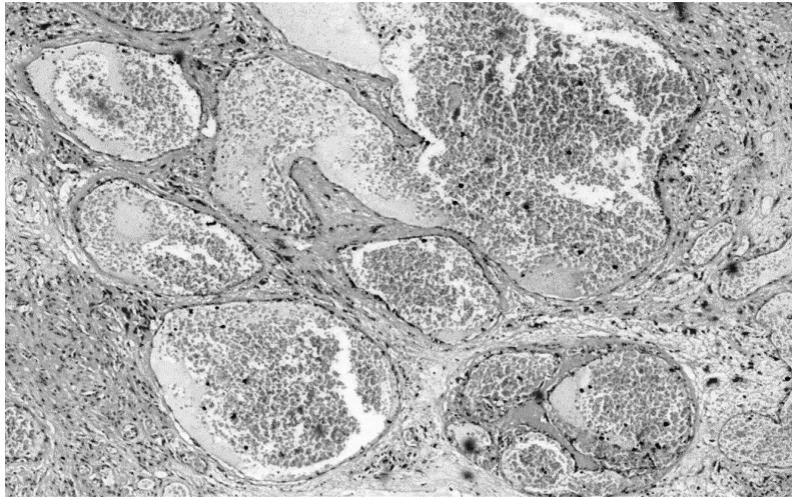


Figure 1. Urinary bladder cavernous haemangioma. Large misshapen vascular spaces (caverns) filled with blood cells and lined by thin, flattened endothelium. Caverns are surrounded by fibrous tissue and some of them are occluded by thrombi. No signs of malignancy are evident (H&Ex100)



Figure 2. Immunohistochemical staining for the endothelial cell marker CD34 demonstrating the endothelial nature of the tumor (CD34x400).

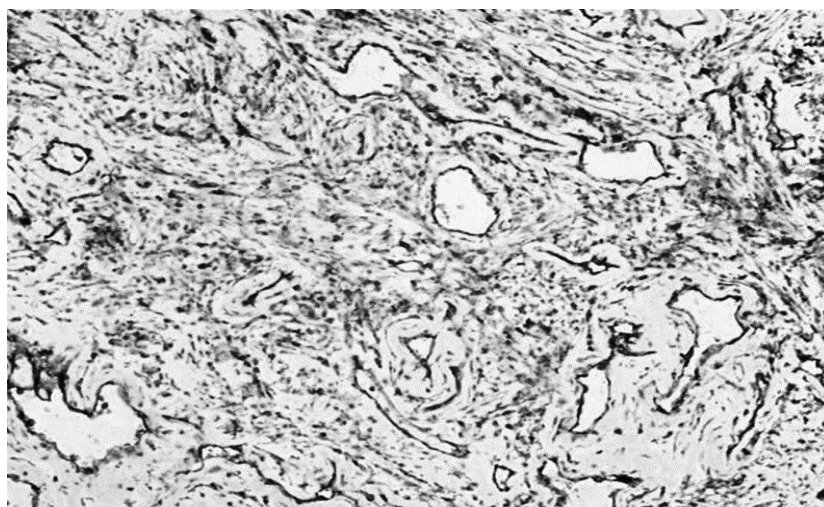


Figure 3. Demonstration of the vascular endothelial cells positively expressing the Immunohistochemical staining marker CD99 (CD99x100).

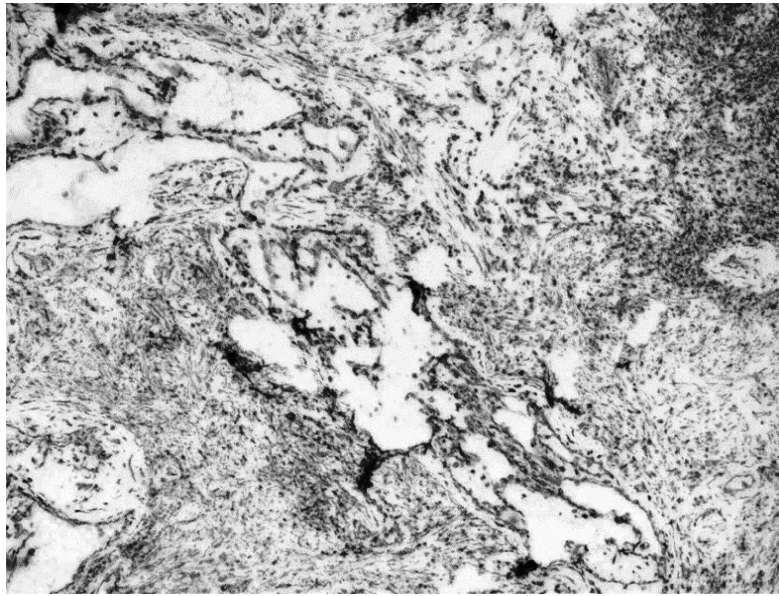


Figure 4. Vimentin marker diffusely expressed in both surrounding caverns stromal cells and endothelium (Vimx100).

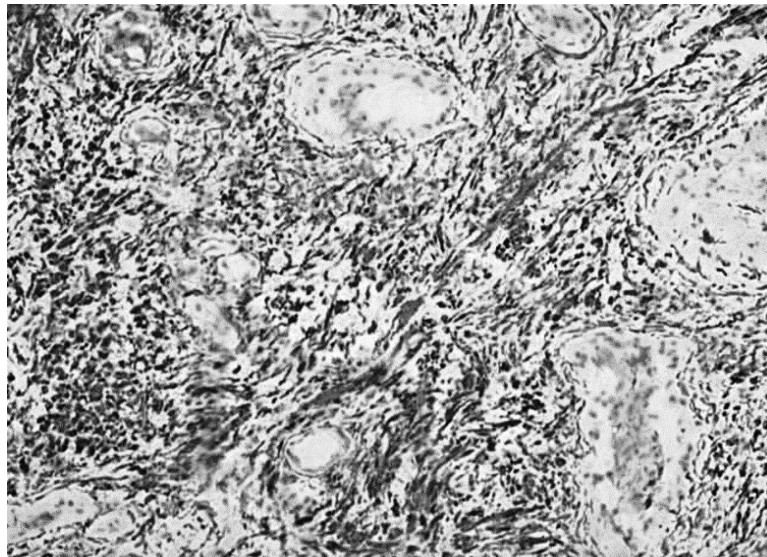


Figure 5. Demonstration of the stromal spindle cells partially expressing the Immunohistochemical staining marker SMA (SMAx100).

DISCUSSION

Though very common in epidermal and dermal parts of the body, haemangioma rarely involve mucosal tissue, such as urinary bladder epithelium. This makes urinary bladder to be an unusual location for this lesion (1, 3, 6). Until now approximately 100 cases have been reported in literature (4).

Mostly arising from the congenital background it is usually associated with cutaneous haemangioma or congenital syndromes such as Kippel-Trénaunay and Sturge-Weber syndromes (2, 5).

The larger part of urinary bladder haemangiomas are solitary, small (< 3 cm) and cavernous, with the posterior wall and trigone being the most common locations (3, 5, 6).

Although it shows a wide age distribution, haemangioma predominantly occurs in patients under 30-years-old of age with a slight gender predilection. The male: female ratio is 3:1 (2, 5).

Gross haematuria, abdominal pain, dysuria and voiding irritation are considered the most common presenting signs (4, 6). And the tumor is usually found incidentally during the evaluation of these symptoms (7). Unfortunately, vesical malignant tumors such as adenocarcinoma and angiosarcoma, for example, clinically present in the way. This makes the differential diagnosis between these neoplasms and haemangioma being crucial and sometimes difficult.

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