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Case Report

Cavernous Hemangioma of the Bladder

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INTRODUCTION

Bladder cavernous hemangioma (BCH) is a rare cause of hematuria. It may appear in every part of the urinary tract and presents mostly in childhood. Bladder hemangioma (BH) is suspected by cystoscopy and radiologic findings and confirmed by pathologic examinations. The treatment of BH differs from partial cystectomy and endoscopic removal or LASER therapy. Since BCH is a rare case and because of its big size and specific cystoscopic findings, we report a treated case of it in this article.

CASE REPORT

A 19-year old boy from Zabol, southeast of Iran, was referred to this center with frequent hematuria, blood clot in urine, and anemia (hematocrit=21%) from which he has suffered for 6 years. Renal function tests were normal. The upper urinary tract was normal in IVP; however, there was a filling defect in the right side of bladder in the cystogram phase (fig. 1).

An echogen mass was detected by sonography in the right wall and dome of the bladder. The same mass without external invasion was indicated at the same side in CT scan (fig. 2). The patient underwent cystoscopy and biopsy to confirm the diagnosis. Diffuse port red wine colored bleeding mucosal lesions were seen. Biopsies and bimanual examination were performed. There

FIG. 1. cystography of the patient with bladder cavernous hemangioma

FIG. 2. CT scan of the patient with bladder cavernous

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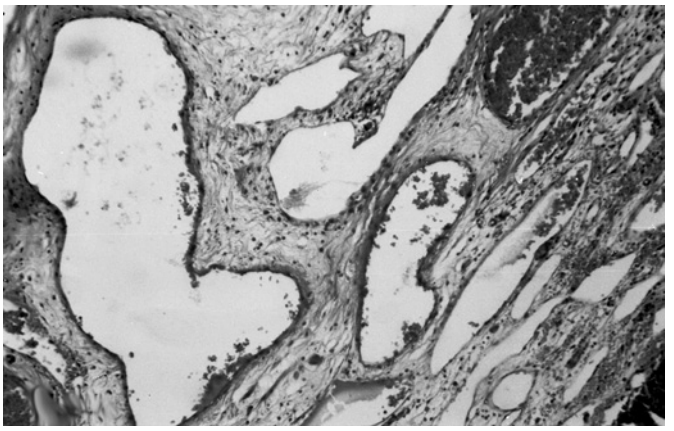

FIG. 3. pathology result after partial cystectomy

FIG. 4. cystography after partial cystectomy

was no adhesion to the pelvic wall. Pathologic examination revealed BCH. No other sources of hemangioma were detected in the patient's body.

The patient's frequent hematuria, progressive anemia, and several blood transfusions led to surgical tumor removal. By a midline incision under the umbilicus, abdomen was opened. The bladder was defined by extraperitoneal approach. The tumor was palpated. It was like a bag of worm in the right upper side. A part of bladder containing tumoral vascular tissues with a safe margin was removed. Pathologic study of samples confirmed BCH (fig. 3). Cystoscopy was done to assure the lack of any urine leakage one week later and then the patient was discharged (fig. 4).

DISCUSSION

Bladder hemangioma is a rare cause of hematuria. Although cavernous hemangioma is mostly developed in derma and epidermis, it is rarely reported in the mucosal parts. Generally, there is a congenital cause for it. Cavernous hemangioma occurs most often in children and youth. It may be single or multiple. Hematuria is considered as its clinical sign; however, it is usually diagnosed by cystoscopy. In 30% of patients with bladder cavernous hemangioma, we may find hemangioma in other organs. In some cases of cavernous hemangioma, Klippel-Trenaunay or Sturge-Weber syndrome was reported too. Head, neck, and upper limbs are the most common parts in which cavernous hemangioma is diagnosed. The disease may occur in deeper organs too; in this case, it does not regress. The pressure of cavernous hemangioma may cause a destructive effect on its close tissues. Thus, in most cases surgical removal is needed. It rarely becomes malignant.

Histologically, cavernous hemangioma has the same characteristics of usual hemangioma except for its dilated, big, and full blood vessels covered by flat endothelium. Thrombocytopenic purpura, in addition to hemorrhage, is one of the major complications of cavernous hemangioma, which occurs most often in infancy and secondary to the rapid enlargement of the hemangioma. Different methods such as partial cystectomy or LASER photocoagulation can be used in the treatment of bladder hemangioma. Radiotherapy is not sufficient and endoscopic resection may result in hemorrhage or incomplete resection. In some rare cases selective arterial embolization of tumor may be done.

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