Hemangioma of bladder with associated extravesical cyst in an 8-year old boy

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How to cite this article:
Moudi E, Aliramaji A. Hemangioma of bladder with associated extravesical cyst in an 8-year old

Abstract
Urinary bladder hemangiomas are very rare and accounting for 0.6% of all urinary bladder tumors. An 8-year old
boy presented with gross hematuria. After obtaining history and physical examination and imaging studies;
transurethral resection biopsy reported hemangioma in association with an exteravesical cyst.

Keywords
- hemangioma
- urinary bladder
- partial
cystectomy
Background

Gross hematuria is relatively rare in children with approximately 1 in 1000 outpatient visits. The etiology is also very different than in adults, because urologic malignancies are less common in children. The major causes in children are glomerulopathy, urinary infection, hypercalcemia, kidney stone, congenital anomalies and iatrogenic. Less common causes are malignancies, infantile polycystic kidney, hyperoxaluria and a significant number of cases have no etiology. Considering the etiologies mentioned for children the role of urologist is limited, but sometimes radiographic modalities and cystoscopy are necessary for diagnosis. Bladder hemangioma is a rare cause of hematuria which accounts for 0.6% of all urinary bladder tumors.

Case Presentation

An 8-year-old boy presented with painless gross hematuria which had been going on for one week. He had a past history of the same problem 5 months ago. Physical examination revealed no unusual findings. Blood work-up was normal. Urinalysis showed many RBC and 10-20 WBC per HPF. Ultrasound of kidneys was normal but a 2.2x2.6 cm soft tissue mass was seen in the right side of the bladder dome which had a communication with a 1.9x1.5 cm extra luminal cystic lesion. CT scan of pelvis and abdomen with intravenous contrast also supported the above findings Figure 1. Cystoscopy demonstrated 2x2cm soft tissue reddish mass arising from the bladder dome and partial resection was performed by the transurethral resection. Histopathologic examination of the specimen was reported as lymphangioma. Surgery was performed using a Pfannenstiel incision. The bladder was opened vertically Figure 2. The soft tissue mass with extravesical cyst was brought out en bloc Figure 3. Macrosopically the specimen was measured to be 5.5x3.6x3.5 cm, including a 2x2.5 cm solid tissue and 2x2 cm cystic lesion Figure 4. The pathologist reported hemangioma with epithelial cyst similar to simple peritoneal cyst Figure 5.
**Discussion**

Hemangioma is a benign and common mesenchymal tumor in different organs of the body but primary hemangioma of the bladder accounts for only 0.6% of vesical tumors. Bladder hemangioma presents mainly in pediatric patients but it manifests differently in each age group. It has a male predominance. Gross hematuria is the usual presenting symptom of this lesion. Often vesical hemangiomas are discovered in the dome of bladder and they are single, sessile blue masses smaller than 3 cm. Ultrasound, computed tomography scan and MR imaging are utilized for diagnostic work up in hematuria. All of these demonstrate bladder hemangioma as a sessile, solid hyper vascular tumors. Cystoscopic appearance of a vesical hemangioma is a sessile, red-blue mass but this is not specific and differential diagnosis includes sarcoma, melanoma and endometriosis so biopsy is needed in order to verify the definitive diagnosis. Observation, radiotherapy, systemic steroids, transurethral resection, sclerosing agent injection and partial cystectomy are available treatments of hemangioma depending on the size and penetration degree of the lesion. In this case, extravesical extension of the mass led to the decision of performing open surgery. To our knowledge, there are no reported cases of hemangioma in association with cyst of bladder.

**Conclusion**

One of the causes of hematuria is the bladder hemangioma especially in childhood which may have cystic and solid components. It should be kept in mind as a differential diagnosis in these cases.

**Acknowledgements**

We would like to thank Mrs. Sakineh Kamali Ahangar at the clinical research and development center of Shahid Beheshti Hospital.
Reference