Dear Editor:

We report the case of a 9-year-old male patient with an unremarkable medical and surgical history who was referred from another center where he was studied for asymptomatic gross hematuria lasting 20 days occasionally associated to small clots. There was no history of trauma, infection, or coagulation changes. Renal disease had been ruled out in

Bladder cavernous hemangioma as a cause of hematuria in a child

Hemangioma cavernoso vesical causante de hematuria en un niño
Ultrasound showed kidneys with normal morphometry, function, and corticomedullary differentiation and no signs of nephrolithiasis or ectasis. In the right lateral aspect of the bladder, a wall-dependent echogenic image without posterior shadow, approximately 8 mm in diameter, was seen. This was consistent with a bladder tumor and corresponded to the filling defect seen in intravenous urography in the same location (fig. 1).

Clinical examination showed no signs of vasculopathy. Abdominal and renal fossa palpation revealed no tenderness or organ enlargement. A complete blood count found no anemia or leukocytosis. Renal function, coagulation parameters, and acute phase reactants were within normal levels. An immunological study showed no changes. Levels of immunoglobulins (Ig) G, IgA and IgM, complement factors C3 and C4, and ANA and anti-DNA antibodies were normal. Mantoux and throat swab tests were negative.

A bladder tumor was suspected, and endoscopic examination under general anesthesia was therefore performed. Cystoscopy showed no stenotic urethral areas. Verumontanum and bladder neck showed normal characteristics. Both ureteral meatus were found to have a normal location and morphology. An actively bleeding tumor, approximately 1 cm in size, pedunculated, vesicular, with hemorrhagic fluid resected by electrocoagulation was seen in the right lateral aspect (fig. 2).

The postoperative period was favorable. Continuous bladder irrigation was not required because gross hematuria did not occur. Bladder catheter was maintained for 12 h, and patient was discharged 24 h after surgery. The pathology laboratory diagnosed a hemangioma of a cavernous histology. Clinical and ultrasound follow-up at one and six months of surgery was satisfactory, showing no hematuria, lower urinary tract symptoms, or tumor recurrence.

Hemangioma is considered to be a benign mesenchymal tumor. Hemangioma is congenital in origin, as it grows from embryonic stem cells of an angioblastic lineage. Although this tumor may occur at any age, isolated hemangioma is very rare in children. In most reported cases, hemangioma occurred as part of congenital cavernous syndromes such as Sturge-Weber or Klippel-Trenaunay-Weber syndrome.

Grossly, hemangioma is usually described as a sessile, violaceous, and raised mass. Hemangioma may rarely occur as pedunculated, hemorrhagic vesicular formations, unlike in the case reported. Diagnosis is confirmed by biopsy. In microscopic diagnosis, cavernous hemangioma differs from polypoid cystitis in that it has no inflammatory cells and shows vascular proliferation with no cell atypia. Although no pathology is found in 34% of children with gross hematuria and implications are also different in them as compared to adults, differential diagnosis with neoplasms of the bladder or the rest of the urinary tract as etiology of hematuria should not be overlooked.

It is therefore very important to know what supplemental tests and treatment are indicated, as this is an uncommon pathology and, as occurs in other urological conditions in children, such as urethrothrorrhagia, the lack of agreement in medical literature may result in unnecessary examinations. We should thus be as less aggressive as possible, but this does not mean prolonging endourological invasive tests if a neogrowth is suspected as the possible cause of hematuria.

In our opinion, when hematuria occurs in a child, ultrasound examination of the urinary tract should be (as in adults) the imaging test of choice for ruling out stones, morphological defects, or neogrowths. If ultrasound reveals a tumor 3 cm or less in size, endoscopic examination and resection for confirmation of diagnosis is the most adequate.
therapeutic option to prevent a subsequent anesthesia. Both electrocoagulation and laser fulguration may be used\(^1,2,7,8\).

REFERENCES


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