Macroscopic hematuria in a child after a saddle trauma.


Dept. of Urology, Ghent University Hospital, Ghent, Belgium,
Dept of Pathology, Ghent University Hospital, Ghent, Belgium
Dept of Urology, Onze-Lieve-Vrouw Ziekenhuis Aalst, Belgium

**History**

A young boy, age 10, presents at the emergency department with gross hematuria since a few days. According to the mother, the child underwent a scrotal trauma on the saddle of his bike as he fell a few days ago. The boy is otherwise healthy, with no other contributing history.

**Initial examination**

- No relevant factors on physical evaluation

**Investigations**

- Blood work up: non inflammatory, nl creatinine
- Urine sediment: Macroscopic hematuria
- Urine culture: sterile
- Abdominal ultrasound: Poorly contributing, as the child has a poorly filled bladder. A thickened bladder wall is suspected, with eventually blood clots in the bladder.

- Abdominal CT with IVP: A splenomegaly is described, with normal kidneys and and thick bladder wall with porbably intraluminal blood clots. Although not described, a contrast capturing massa on the right bladder wall is also suspected.

- A cystoscopy under general anesthesia is then performed: The bladder is filled with necrotic material and polipoids massa. Cold biopsies and limited TUR resection are performed.

- Pathology reports shows necrotic material and massive presence of eosinophils
- A full thickness bladder biopsy is then under general performed.

- Pathology reports:
  - No signs of a rhabdomyosarcoma: the desmine and myogenine colorations show no tumor cells.
  - The desmine coloration shows presence of detrusor cells.
  - The CD 68 and CD 31 colorations shows groups of macrophages. ( groups of granulomas)
  - The other colorations show reactive inflammatory reaction.
  - In conclusion massive inflammatory reaction with granulomas and eosinophils. No sign of tumoral process in the sample.

**Take home message**

Always investigate macroscopic hematuria in children, just as well in adults. The most common cause will most of the time be benign ( bulbar urethritis, stones, nutcracker syndrome), but sometimes, you find...this.