Bilateral Pudental Artery Embolization in Gross Hematuria

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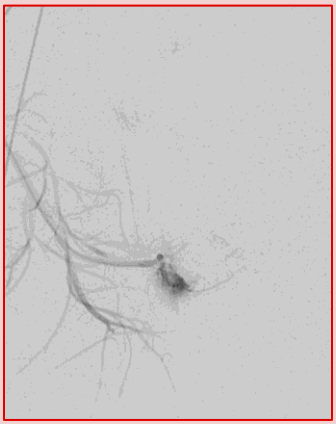
Introduction: Macroscopic hematuria is rare in children. The most common causes are urinary tract infections, trauma, and perineal irritation. Rarely, hematological diseases, glomerulonephritis, urinary stones, urinary anomalies, malignancies, and hematological diseases can cause hematuria(1). We report a case of 3-year-old male with hematuria caused by internal pudendal artery malformation.

Case: A 3 years old male patient was admitted due to painless gross hematuria for 1 year. Hematuria was not preceded by upper urinary tract infection or there was no history of urethral instrumentation or catheterization or trauma. No history of blood transfusion or other special diseases existed. Urine analysis, coagulation function tests and kidney function tests were normal. The patient underwent cystoscopy. No active bleeding area was seen. It was evaluated as urethritis and started treatment. However, despite the treatment, there was no improvement in his hematuria. Angiography was performed and seen bilateral internal pudendal artery bleeding. The patient underwent bilateral selective embolization under interventional radiology guidance. His hematuria did not improve after embolization. The patient was started on beta blocker medication (dideral). However, due to lack of response to treatment, bilateral selective embolization was performed again 2 weeks later. The patient's hematuria improved during follow-up and he was discharged.



A. Pre-operation

B. Post-operation

Conclusion: In conclusion, an AVM of the internal pudendal artery is a rare cause of recurrent painless gross hematuria(2). Case examples for adult patients have been reported in the literature, but no publications have been found for pediatric patients. In patients who do not respond to treatment, in the presence of unexplained long-term hematuria, angiography should be performed and in necessary cases, the option of embolization should be kept in mind. But it is important to protect functions of penis. The selection of embolization materials and the process of operation also should be carefully handled.

Referances:
1- H P Patel 1, J J Bissler Hematuria in children Pediatr Clin North Am, 2001 Dec;48(6):1519-37. doi: 10.1016/s0031-3955(05)70389-8.
2- Hira Lal, Priyank Yadav, Vivek Singh, Vaishali Tomar Internal pudendal artery embolization: A minimally invasive approach for bulbar artery pseudoaneurysm Turk J Urol. 2018 Sep 12;44(6):508–510. doi: 10.5152/tud.2018.94752.