

SCHISTOSOMIASIS INFECTION MIMICKING A BLADDER CANCER

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Background: Schistosomiasis is an acute and chronic disease caused by parasitic worm: it's transmitted by contact with water contaminated with parasites. Farmers, fishermen and people using unclean water, especially in endemic areas, can be easily infected. Urogenital, intestinal and hepatic localization are common: at least 92% of patient requiring treatment for schistosomiasis live in Africa. It's a very uncommon disease in Italy, but immigration, especially from North Africa, is changing its prevalence in our country. We describe a case report of a schistosomiasis infection mimicking a bladder cancer in a young black male coming from Mali.

Patient and Methods: A 22-year-old man of black ethnicity was referred to Urology for gross hematuria and irritative urinary symptoms. His past medical history was uneventful but he reported a three-month history of storage lower urinary tract symptoms with recurrent hematuria. On physical examination he was afebrile and in a good general status: no signs of infection or physical abnormalities were reported. Blood examinations were all negative while the urinalysis showed 1+ haemoglobin (reference range 0,0) even without bacteria, leucocytes, parasites or ova. The abdominal ultrasound showed an asymmetric bladder wall thickening. An early cystoscopy revealed multifocal bladder masses suspicious for solid urothelial carcinoma and located at different bladder wall. A TURB was offered

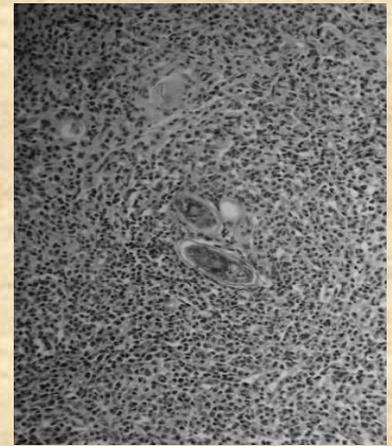


Figure 1. Histopathological section revealing *Schistosoma* oviposition

Results: Pathological analysis put in evidence chronic inflammation associated with high eosinophilia and areas of cystitis cystica and cystitis glandularis. The main lesion located at left bladder wall showed chronic inflammation and cystitis glandularis also developing schistosomiasis oviposition (Figure 1). No urothelial cancer specimen were found at pathological analysis totally excluding bladder carcinoma.

Discussion and Conclusions: Bladder schistosomiasis is a parasitic disease. *Schistosoma haematobium* is the one mostly linked to human disease. Travellers, immigrants from Africa and people using unclean water in endemic areas are mostly involved. Larvae may easily penetrate the skin of people exposed to the infected water frequently involving lung or liver where they reside until maturation: human bladder can be involved too. This predisposes individuals to squamous cell carcinomas because of urothelium changing through inflammatory insult. Increasing immigratory flow and the variable ethnicity may improve the risk of this parasitic infection also in our country. Few cases of schistosomiasis mimicking bladder cancer are reported in the literature and all belong to patients coming from Africa¹. The clinical presentation is similar to bladder cancer often presenting with gross hematuria or bladder thickening during ambulatory ultrasound²: high eosinophilia is often common but alone it remains insufficient. Screening by serology is easy and reliable actually representing the gold standard in suspected cases. Only the histological examinations clarify the presence of infection totally excluding bladder cancer. Clinicians should remember that schistosomiasis is a part of the differential diagnosis of bladder masses especially in patients coming from endemic regions³.

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