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Case illustrated

Schistosoma haematobium

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A 24-year-old male presented to the outpatient clinic for evaluation of suprapubic pain and intermittent end-stream hematuria for the past four years. He had no fever, chills, nausea, vomiting, dysuria, or change in bowel movements. His vital signs and physical examination were unremarkable. The patient had no contributory medical history and reported a monogamous heterosexual relationship. He is originally from Zimbabwe, currently living in the United States. He received multiple empiric antibacterials regimens for possible urinary tract infection without resolution of the symptoms.

Routine urine analysis was pertinent for a pH of 8.5 (5.0–8.0), urine RBC of 51–100 (0–2 hpf), and small blood (negative). Urine nitrite, leukocyte esterase, glucose, and white blood cells were negative. Urine Chlamydia and Gonorrhoeae Amplified RNA were negative. A computed tomography urogram showed diffuse mild to moderate calcifications involving the mucosal and wall of the urinary bladder and patchy mild to moderate calcifications involving the wall of the left mid and lower ureter. Eventually, serum Schistosoma antibody IgG was positive, and urine Schistosoma exam detected *Schistosoma haematobium* eggs and miracidia (Figs. 1 and 2). Therefore, a diagnosis of genitourinary schistosomiasis was established, and praziquantel 40 mg/kg to be given once was prescribed. He was instructed to follow up urine microscopy in 6 months given the low risk for re-infection in non-endemic areas. Although schistosomiasis is the commonest cause of hematuria worldwide, it frequently remains undiagnosed and is easily treated [1]. The classic sign of urogenital schistosomiasis is hematuria; however, bladder fibrosis and ureter and kidney damage are sometimes diagnosed in advanced cases. A definitive diagnosis can only be made with evidence of viable eggs in the urine, stool, or biopsy specimens [2,3]. Praziquantel is the recommended treatment against all forms of schistosomiasis. It is practical, safe, and low-cost [3,4].

This case highlights that the diagnosis strongly depends on the physician's awareness as a possible differential diagnosis, especially if there is a robust epidemiologic history.

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Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

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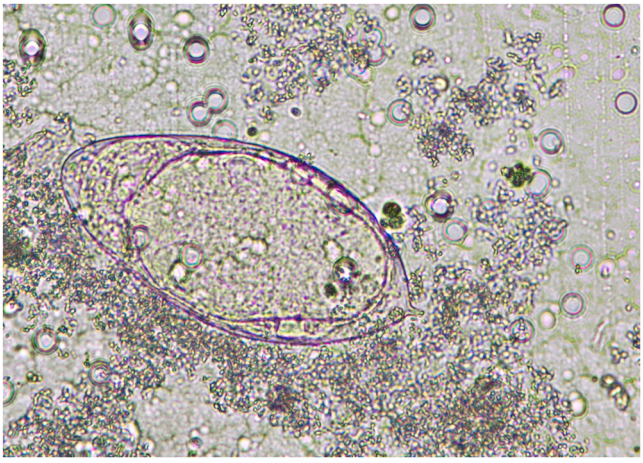

Fig. 1. Schistosoma haematobium egg with a conspicuous terminal spine.

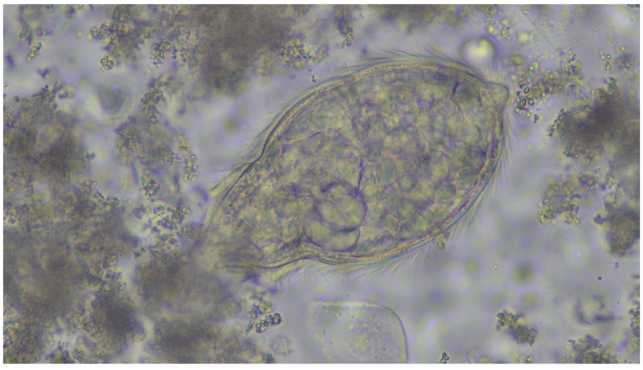

Fig. 2. Schistosoma haematobium miracidium, a ciliated larval stage.

CRediT authorship contribution statement

All authors have seen and approved the manuscript and contributed significantly to the work. **Cristina Corsini Campioli:** study design, image collections, writing, literature review. **Jessica L. Sheehy:** writing, proof-writing. **Eric O. Gomez Urena:** writing, proof-writing.

Conflict of interest

None for all authors.

References

[1] Paul JF, Verna S, Berry K. Urinary Schistosomiasis. Emerg Med J 2002;19(5):483–4.
[2] Phin Tan W, Hwang T, Park JW, Elterman L. Schistosoma haematobium: A Delayed Cause of Hematuria. Urology 2017;107:e7–8.
[3] World Health Organization. Schistosomiasis; 2022. ⟨https://www.who.int/news-room/factsheets/detail/schistosomiasis⟩; [Accessed 29 Noverber 2022].
[4] Ojurongbe O, Risqat Sina-Agbaje O, Busari A, et al. Efficacy of praziquantel in the treatment of Schistosoma haematobium infection among school-age children in rural communities of Abeokuta, Nigeria. Infect Dis Poverty 2014;3:30.