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A String-like Blood Clot Mimicking Parasite in the Urinary Bladder

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Case Description

A 86-year-old-female presented with urinary frequency, urgency and incontinence following retention for nearly 3 weeks. She had no fever (body temperature: 36.4^{0}c) and was catheterized with Foley catheter at our emergency and clear yellow urine was drained. Meanwhile, a worm-like organism was also noticed in the urine drainage (Figure 1).

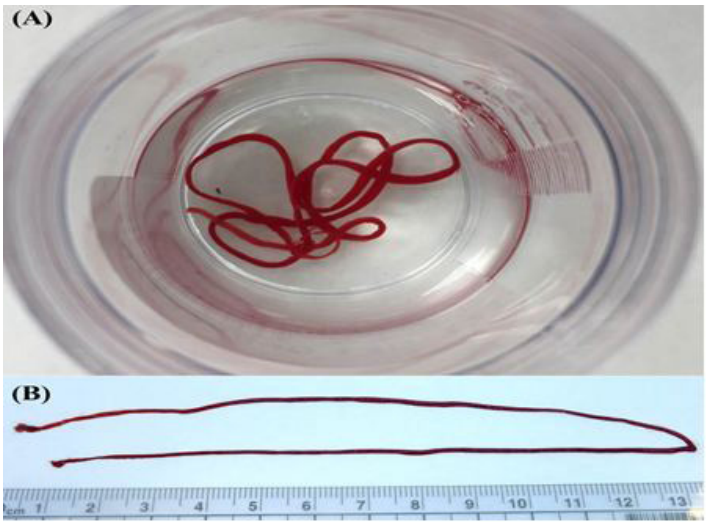

Figure 1: (A) The parasite-mimicked organism appeared to be red colored, without obvious segmentation. (B) The size and length were about 0.1x0.2x25 cm.

Pyuria was impressed with positive occult blood, nitrite, leukocytes, red cells and bacteria by the strip test and the microscopic exam on urine sediment. Besides, no ova were found on the Merthiolate-Iodine-Formaldehyde (MIF) stain of urine. The leukocyte count on blood test was within the referenced normal range without increased eosinophilic granulocytes (leukocyte: 5,860/uL, with 79.0% neutrophil, 15.4% lymphocyte, 5.3% monocyte and 0.3% eosinophil). Reviewing the patient's history, she received left nephrectomy for renal abscess about 10 years ago and denied specific travelling or exposure history. On physical examination, there were no specific findings except mild tenderness over lower abdominal region. The organism was subsequently identified as blood clot formation (Figure 2).

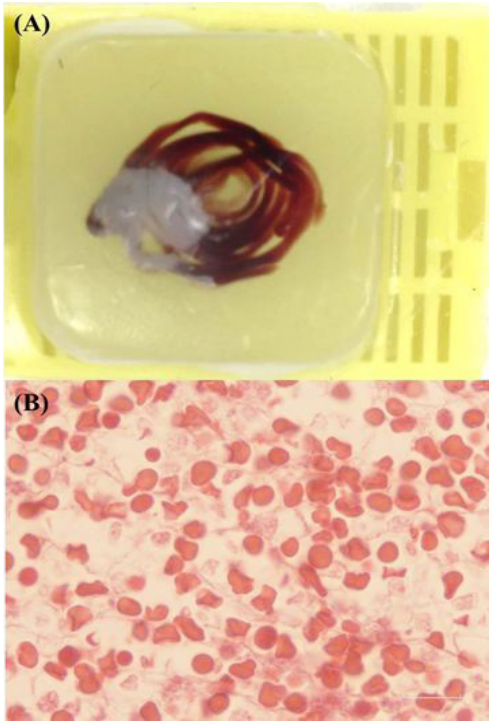

Figure 2: (A) The longitudinal section of the worm-like organism in the paraffin wax. **(B)** Hematoxylin and Eosin (H&E) stain of the organism. Predominant red cells were observed under the microscopy (1,000X).

Furthermore, bladder echography and Magnetic Resonance Imaging (MRI) of pelvis revealed a mass with 5x3x4.5 cm in size around the bladder neck, favoring the clinical TNM stage of

T4N0M0, which was suspected to be the main cause of chronic urinary retention. The patient then underwent periurethral tumor biopsy and squamous cell carcinoma was identified. She was going to receive staging bone scan of whole body for further work-up and treatment.

Discussions

The parasitic infection disease in the urinary tract has been well documented for these decades. Considering the size and length of organism in our case, *Ascaris lumbricoides* and *Dioctophyma renale* should be considered. In common, ascariasis is restricted in the gastrointestinal tract. Unusually, a few cases of *A. lumbricoides* infection have been reported to be found in the urogenital system, including kidney, urinary bladder, uterus, and cervix uteri, with or without fistula formation [1]. *Dioctophyma renale*, or the giant kidney worm, has been known to primarily infect fish-ingesting mammals like dogs. Human infestation is relatively rare, and of these, adult worms expelled from the urethra could be seen [2]. Urinary schistosomiasis, caused by *S. haematobium,* was less likely to be involved in this case for incompatible worm size. The adult schistosomes were generally 7 to 20 mm in length [3]. To summarize in parasitic identification, morphological examination with meticulousness is essential, including size, length, appearance, specific organs or other characteristics in the worm body, etc. Also, eosinophilia on the blood test, body fluid analysis and MIF stain of specimen for parasitic ova as well as the image studies for focal lesions could help the differential diagnosis of parasitic infection. The above findings correlated with clinical presentations of the patient help the diagnostic establishment and further therapeutic strategy.

References

1. Singh D, Vasudeva P, Dalela D, Sankhwar SN (2010) *Ascaris lumbricoides*: a stranger in the urinary bladder causing urinary retention. J Postgrad Med 56: 222-223.

2. Tuur SM, Nelson AM, Gibson DW, Neafie RC, Johnson FB, et al. (1987) Liesegang rings in tissue. How to distinguish Liesegang rings from the giant kidney worm, *Dioctophyma renale*. Am J Surg Pathol 11: 598-605.

3. The Centers for Disease Control and Prevention (CDC). Parasites - Schistosomiasis.