

**Keywords:** Urethral Hirudiniasis, Coagulopathy, Allergic Reaction, Extraction

### Introduction:

Hirudo, a genus of hematophagous leeches, is known to cause hirudiniasis by adhering to host tissues and extracting blood. Urethral infestations are exceedingly rare, with only four Medline-indexed cases reported over the past 40 years, primarily focusing on vesical hirudiniasis. These infestations can result in severe complications, including acute hemorrhage, local tissue reactions, and life-threatening coagulopathies. This case report will explore the rare occurrence of urethral hirudiniasis in a schoolboy, shedding light on its clinical challenges and potential complications.

### Case Description:

A 9-year-old boy experienced penile pain while fishing and observed a leech entering his urethra. Upon presentation to the emergency department (ED), his penis was swollen, and he developed urticaria and pruritus with no anaphylaxis. Initial treatment included analgesics, antihistamines, and steroids, which provided symptomatic relief. While awaiting the pediatric surgical team, the leech's tail became visible at the penile meatus and was successfully removed using forceps, resulting in minimal bleeding. Subsequently, in the ward, patient developed hematuria and severe coagulopathy (INR 7.8), necessitating fresh frozen plasma (FFP) transfusion. His condition improved with treatment, and the INR normalized to 1.14 before discharge from hospital. Follow up appointment 3 days later confirmed resolution of symptoms without additional complications.

Figures : Manual Extraction of leech using forceps



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### Discussion:

Uncommon presentations of leech infestations, such as urethral hirudiniasis, pose clinical challenges due to the leech's anticoagulant properties. Hirudin, being one of its contents, able to precipitate significant bleeding, such as hematuria and coagulopathy. Timely removal of the leech and supportive interventions, including anticoagulation reversal, are pivotal for favorable outcomes. In this case, manual extraction using forceps was successful. Alternative techniques, such as local anesthetic application (4% lidocaine gel) or saline infusion into the urinary bladder, may obviate the need for invasive procedures like cystoscopy. Additionally, the allergic reaction observed, characterized by urticaria and pruritus, was likely triggered by *Aeromonas hydrophila*, a bacterium presents in leech secretions. The urethra's delicate epithelium increases susceptibility to infections, necessitating close monitoring and follow-up to prevent progression.

### Conclusion:

Urethral hirudiniasis represents a rare but emergent condition requiring prompt identification and management to mitigate complications, including pain, hemorrhage, allergic reactions, and infections, thereby ensuring positive clinical outcomes.

### References:

- 1) Ahmad, Rashidi & Baharuddin, Kamarul Aryffin & Zaidin, Ahmad & Mohidin, Mohd & Kheng, Cheah & Sidek, Norrohimah. (2008). An unusual case of urethral hirudiniasis. The Southeast Asian journal of tropical medicine and public health. 39. 319-23
- 2) Paul AK, Islam N. Vesical hirudiniasis: an unusual cause of bleeding from the urethra. J Ultrasound Med. 2005;24(12):1731-1733.
- 3) Mukhopadhyay, Madhumita et al. "An unusual cause of haematuria." The Indian journal of surgery vol. 71,3 (2009): 156-8.