

Reach the Leech: An Unusual Cause of Hematuria

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ABSTRACT

Leeches are found in fresh water as well as moist marshy tropical areas. Orifical Hirudiniasis is the presence of leech in natural human orifices. Leech have been reported in nose, oropharynx, vagina, rectum and bladder but leech per urethra is very rare. We report a case of leech in urethra causing hematuria and bleeding disorder in the form of epistaxis and impaired clotting profile after use of stream water for ablution. The case was diagnosed after a prolonged diagnostic dilemma. A single alive leech was recovered from the urethra after ten days with the help of forceps. The hematuria and epistaxis gradually improved over next 48 hours and the patient became asymptomatic. Natives of leech infested areas should be advised to avoid swimming in fresh water and desist from drinking and using stream water without inspection for leeches.

Key Words: *Orifical hirudiniasis. Urethra. Leech. Hematuria. Epistaxis.*

INTRODUCTION

Leeches are found in marshy and humid temperate climate areas of the world and live both on land and in fresh water. They feed by sucking blood of their prey including humans. There are many species of leeches and few have been described to have evolved specially for feeding on mammalian mucous membranes.¹ Rarely they enter natural human orifices and cause bleeding. Hirudin is an anticoagulant secreted by the leech, which causes bleeding. Most commonly, leeches have been reported in the nasal and oropharyngeal cavities after ingestion of contaminated water. Cases have been reported of leech entrance into the vagina, rectum, eye, urethra and bladder.² They usually do not cause awareness as they secrete local anesthetic at the site of bite and once entering the mucosal surfaces, they secrete a variety of enzymes and anticoagulants causing bleeding. Externally leeches are removed from skin by application of salt, vinegar and alcohol, while leech removal from bladder has been done through saline irrigation of bladder through Foley's catheter. Occasionally, cystoscopic and suprapubic removal have been used in cases.³ Leech entrance per urethra is rare but prevalent in Mediterranean, Africa and Asia including Malaysia, Bangladesh, Vietnam, Philippines and India. In Pakistan, there has been many reported cases of leech in nasal and oropharynx cavity but none per urethra.

This is the first case report from Pakistan where a live leech was found in urethra causing hematuria and epistaxis by impairing the coagulation profile.

CASE REPORT

A 58-year male presented with one week history of epistaxis, and gross hematuria for the past one week. Patient had to cut short his religious visit to Kashmore area of Sindh province because of the problem. He used to take bath and ablution in natural springs. There was no history of dysuria, pyuria, fever, bowel complaints, renal colic or stones. The epistaxis was sudden and intermittent with no associated feature. He was a known case of hypertension and was on ACE inhibitor. Family, personal and socio-economic history was not contributory.

On examination, he was an average built elderly with stable vital signs and well oriented. His abdomen was soft, non-tender with no visceromegaly, pulsation or scar mark. His external urethral meatus was blood-tinged. He had fresh bleeding from nose as well. On digital rectal examination, he had mildly enlarged prostate.

He was admitted for suspicion of bleeding disorder, reviewed by ENT specialist, nasal packing was done and investigations were sent. He was given injection vitamin K, tab Transamin™, antibiotics and Foley's catheter was passed.

His urine examination revealed RBC packed film with 6 - 8 pus cells; D-dimers were normal; PT/PTTK were mildly deranged (34/38 second and 14/17 second). Liver and renal function tests and blood complete picture were all normal. Ultrasound abdomen revealed cystitis and chest X-ray was normal.

On day 3, while changing his Foley catheter, a moving worm was seen at the tip of the urethra that was retrieved with forceps and was found to be a leech. Later on, the patient's bleeding improved and he recovered

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Figure 1: Intact leech recovered from urethra with forceps.

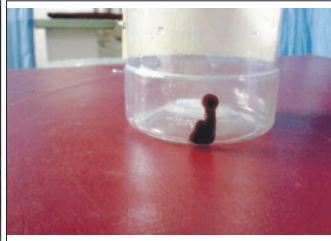


Figure 2: Alive leech after removal from urethra.

completely over the next 48 hours. Patient was discharged and followed for 2 weeks and no hematuria or epistaxis recurred.

DISCUSSION

Intra-vesical and intra-urethral leeches and their removal have been reported from leech-endemic countries like Bangladesh⁵ and Malaysia. They are routinely removed through instillation of hypertonic saline into the bladder cavity through Foley's catheter and keeping it there for 2 - 3 hours. The hypertonic saline squeezes the water content from leech, causes it to shrink and die and subsequent expulsion with micturition. However, for resistant cases suprapubic cystectomy and cystoscopic removal have been used as treatment options.³

Previous reports on leech in natural orifices from Pakistan have been on oropharyngeal and nasal leech infestation, secondary to poor drinking water hygiene and habits.⁶ Sunarays *et al.* reported leech in pyriform fossa of larynx, as a cause of partial airway obstruction.⁷

This case report is different from other cases reported in literature, as in that the patient did not know that he had a leech inside his urethra; while in most of the international literature, leech per urethra is the presenting complaint. Secondly, vesical leech infestation is widely reported and the presenting complaint is hematuria. In this case, the presentation was complicated by associated epistaxis and mild derangement of clotting profile. Furthermore, the ultrasound abdomen in this case revealed cystitis pointing towards urinary tract infection. In this case, the leech remained in the urethra for about 10 days causing hematuria and still remained alive.

There are many possible and reported complications of leech infestation in natural human orifices including infections, nasal obstruction,⁸ dysphagia, respiratory obstruction, epistaxis, hemoptysis,⁹ hematemesis and hematuria.¹⁰

Keeping in view the leech-endemic areas in Pakistan, it is recommended that healthcare professionals working in these areas should be taught about the possible infestations and a high index of suspicion in such cases. Secondly, the masses should be taught about the drinking and bathing water hygiene in leech infested areas to prevent complications.

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