Pharyngeal Leech Infestation Mimicking Foreign Body Aspiration in Yemen: A Case Study

ID 58

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Introduction

Pharyngeal leech infestation (hirudiniasis), though rare, is an emerging cause of pediatric respiratory distress in regions with compromised water sanitation. This case from an MSF-supported hospital in Haydan, Yemen, the diagnostic challenges in resource-limited settings and the importance of high clinical suspicion, especially when a history of consuming untreated water is present.

Case Presentation

A 6-year-old boy presented to our rural hospital with a 4-day history of:

- Persistent foreign body sensation in the throat.
- Dry cough and intermittent inspiratory stridor.
- Symptoms escalated overnight to acute respiratory distress with hemoptysis, which resolved spontaneously.

On Examination:

- **Vitals:** Stable (HR 100/min, RR 26/min, SpO_2 98% on room air).
- **Oropharynx:** Blood-streaked saliva and a dark, mobile, worm-like object were visualized.

Action:

- A 6-cm leech was extracted intact under direct illumination with a headlamp, using clamps and without anesthesia.

Outcome:

- Immediate resolution of all symptoms. The child was treated for mild anemia with oral iron and made a full recovery.

Discussion

Pharyngeal leech infestations can mimic bacterial pharyngitis and foreign body aspiration. A strong index of suspicion based on clinical and epidemiological findings is crucial to diagnosis. The history of drinking untreated water and dynamic symptoms (nocturnal distress followed by spontaneous recovery) helped diagnose this case .
Direct visualisation under excellent lighting is often enough for leech diagnosis and removal, but a precise plan is needed when the leech is not visible. When unexplained hemoptysis is suspected but a leech cannot be seen, the diagnostic procedure must be upgraded .
A systematic assessment should include indirect laryngoscopy and flexible or rigid endoscopy .
Endoscopy is the best way to locate and remove leeches from the nasopharynx, hypopharynx, and larynx, but resource-limited situations may need patient referral.
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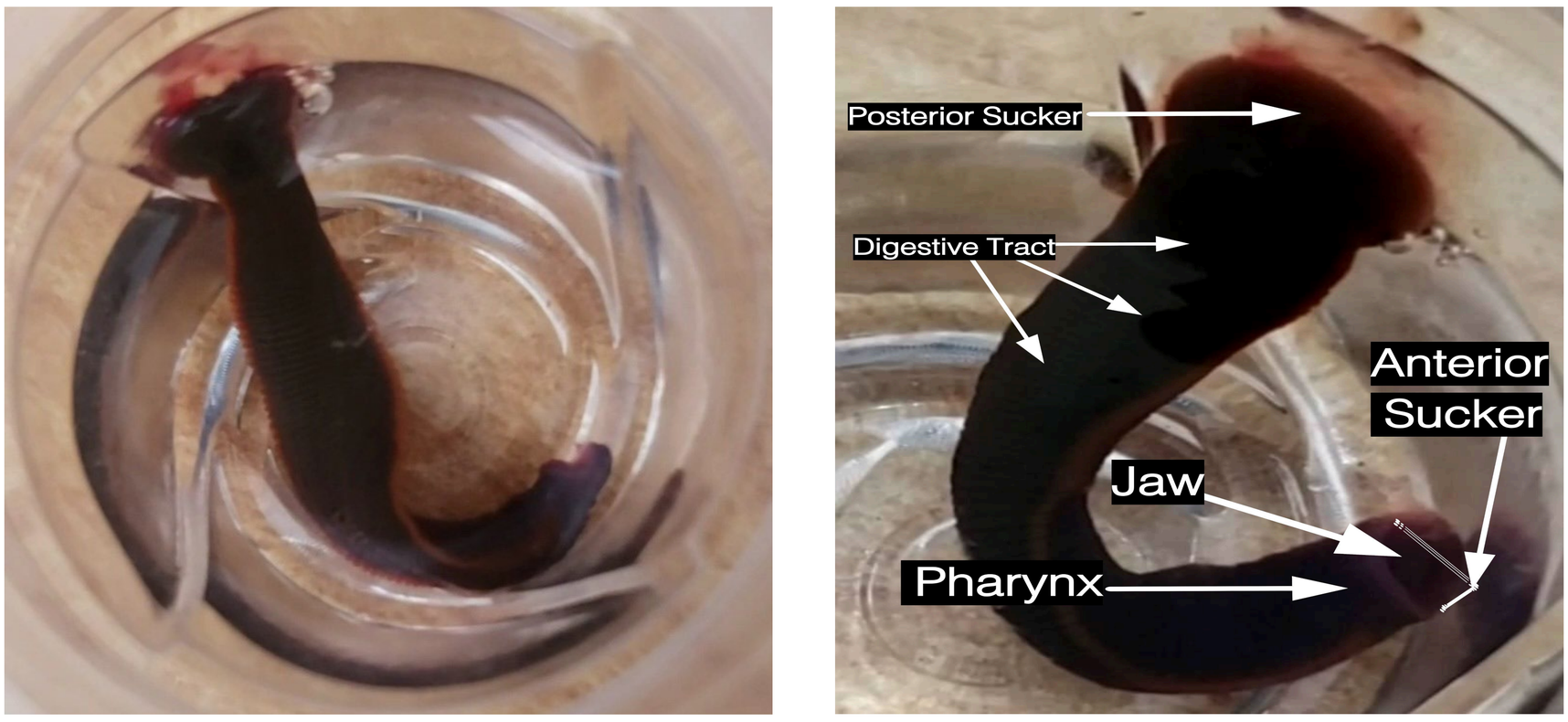

Figure 1: The extracted 6-cm leech, showing its anterior and posterior suckers. This visual confirmation was key to the diagnosis.

Conclusion

This case underscores that leech infestation is a reversible but under recognized pediatric emergency.

- Timely diagnosis, guided by clinical and epidemiological suspicion, is essential to prevent complications like severe anemia or airway obstruction.
- Clinicians in endemic areas must be proficient in both direct, low-cost removal techniques and prepared for scenarios requiring more advanced endoscopic evaluation.
- Strengthening public health measures, including community education on water safety and improving access to clean water, is vital to reduce the burden of such parasitic diseases.

Figure 2: The rural context of Haydan, where reliance on untreated water sources makes parasitic infestations a public health concern.

Leech demonstration – scan to watch

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Ethics Statement

This study fulfils the exemption criteria set by the MSF ERB and was approved for submission by the OCP Medical Director.