

## Case Report

# Leech Infestation Presenting as Severe Rectal Bleeding

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**ABSTRACT** Leech or Hirudinea is a major parasite in rural India. Normally, the leech attacks the skin and exposed areas. An 18-year-old child presented with bleeding per rectum for 1 day along with giddiness. A history revealed that while the boy was working in a field, had a crawling sensation in the perianal area. After admission, the patient was resuscitated with crystalloids and a limited colonoscopy revealed a rectal ulcer with a leech head attached to its base. The hooklets were removed using foreign body removal forceps and injection Adrenaline at 1:10,000 dilutions was injected in 1 ml aliquots into four quadrants to achieve hemostasis. There was no postprocedure complication. Leech infestation can present with exsanguinating acute severe lower gastrointestinal bleed.

**KEYWORDS:** *Gastrointestinal bleed, leech, rectal bleeding*

## INTRODUCTION

Leech or Hirudinea is a major parasite in rural India. These are segmented worms that belong to the phylum Annelida and subclass Hirudinea.<sup>[1]</sup> Although there are numerous instances of leech infestation in the rural population while taking bath in a pond, or during work in open fields, the infestation is seldom reported as traditional practices such as salt application are successful in removing the worm. Normally, the leech attacks the skin and exposed areas but may rarely invade the natural orifices such as nasal cavity, vagina, and rectum.

## CASE REPORT

An 18-year-old boy from a coastal village in eastern India presented to the gastroenterology outpatient clinic with complaints of bleeding per rectum for a day and giddiness of head for 4 h. A history revealed that the boy had gone to the field work which was water logged, where he felt some sensation in between the thighs and a crawling sensation in perineal area. After 1 h, he experienced bleeding per rectum with loose stools and tenesmus. In the next 5 h, he had eight episodes of bleeding per rectum. For these complaints, he went to the nearest hospital where saline enema and fluids were administered; following which he had several episodes of bloody loose stools with passage of clots and black discharge per rectum. Subsequently, he

developed generalized weakness, reeling of the head, and experienced an episode of syncope. The patient was then referred to the gastroenterology outpatient clinic. On presentation, the patient appeared pale and restless. Pulse was 120/min with low volume, and BP was 106/70 mmHg with the presence of orthostatic hypotension. The patient was resuscitated using crystalloids and an emergency limited colonoscopy was conducted. Hemoglobin (Hb) was 8 g% and packed cell volume 28%.

Unprepared distal colonoscopy showed the presence of an ulcer of size 0.5 cm × 1 cm with hooklets and the head of leech attached at 10 cm from anal verge [Figure 1]. There was oozing of blood from the ulcer base. The hooklets were removed using foreign body removal forceps [Figure 2]. Injection Adrenaline at 1:10,000 dilutions was injected in 1 ml aliquots into four quadrants to achieve hemostasis. There was no postprocedure complication. No further bleeding was observed for the next 48 h.

## DISCUSSION

Leeches are hematophagous as they are predominantly blood suckers of vertebrate and invertebrate animals. Once

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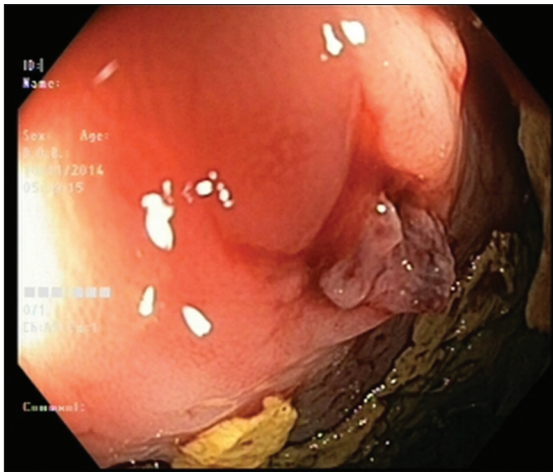
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**Figure 1:** Leech head attached to rectal ulcer



**Figure 2:** Leech hooklets removed by foreign body removal forceps

attached, leeches use a combination of mucus and suction to stay attached and secrete an anticoagulant enzyme, hirudin into the host's blood stream. Bleeding may continue after removal due to leech hirudin and can continue for few hours to even days. The antithrombotic action of hirudin persist beyond its biological activity.<sup>[2]</sup> Internal infestation through natural orifices may require medical intervention.<sup>[3]</sup> There is a single case report of altered coagulation profile due to leech bite requiring fresh frozen plasma.<sup>[4]</sup> Since a leech attaches strongly with its suckers and hooklets, and because of its soft and slippery body surface which ruptures easily, forceful removal of the body with intact hooklets attach to the mucosa can lead to persistent bleeding.

Although leech infestation is a common problem in the tropics, published data regarding leech infestation is sparse. A study by Hannan and Hoque in children from Bangladesh had reported 17 cases of leech infestation through body orifices over a span of 6 years.<sup>[5]</sup> The route was urethra in 2 cases and vagina in 3 cases. Fifteen cases presented with bleeding and transfusion was necessary in five cases in whom Hb % dropped to <7 g/dl.

Behçet *et al.* reported a 33-year-old male from Southeastern Turkey who presented with a 4-day history of fresh rectal bleeding and a leech was detected on anorectal examination.<sup>[6]</sup> There is a single report from Australia wherein a 2 years child with rectal bleeding was found to have a leech protruding from the anus. Rectal bleeding in this child continued for 1 day after removal.<sup>[7]</sup> From India isolated cases have been reported from Bengal with rectal bleeding and spontaneous passage of leech.<sup>[8]</sup> A case report from Malaysia also reported of prolonged rectal bleeding after the removal of leech requiring endotherapy.<sup>[9]</sup>

The present case is interesting as it highlights the fact that leech infestation can present with exsanguinating acute severe lower gastrointestinal bleed. At presentation, the patient had significant blood loss for which urgent colonoscopy was planned and endotherapy was performed. Early management and endotherapy resulted in prompt relief with cessation of bleeding.

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#### Conflicts of interest

There are no conflicts of interest.

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