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Case Report

A strange cause of nasal blockage and anemia in an infant

Rashika Thakur[1], Yash Pal Sharma[2]*, Shruti Sharma[1]

[1]Department of Paediatric Gastroenterology and Hepatology Unit, Atal Institute of Medical Superspeciality, Chamiana, Shimla, Himachal Pradesh, India
[2]Department of Otorhinolaryngology, Indira Gandhi Medical College Shimla, Himachal Pradesh, India

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***Correspondence:**
Dr. Yash Pal Sharma,
E-mail: dryashpal75@gmail.com

ABSTRACT

Leeches are sanguivorous parasites causing infestation in humans and other warm-blooded mammals, mainly affecting older children and adults with most common site of attachment being nasopharynx. We present a case of severe anaemia and growth failure in an eight-month-old infant due to nasopharyngeal leech infestation with symptoms of nasal blockade and blood-tinged nasal exudation. The child showed significant improvement on follow-up after removal of the leech.

Keywords: Foreign body, Nasal obstruction, Epistaxis, Leech

INTRODUCTION

Leeches are sanguivorous parasites causing infestation in humans and other warm-blooded mammals, mainly affecting older children and adults, with most common site being nasopharynx. Symptoms include recurrent epistaxis, anaemia, haemoptysis, hematemesis, melena and rarely severe conditions like airway obstruction.[1] Removal of the parasite is generally curative.

CASE REPORT

An eight-month-old previously healthy boy presented to the outpatient department with history of recent onset nasal twang, blood-tinged nasal exudation, and mouth breathing. Child had no history of fever, rash, swelling, excessive crying etc. His perinatal history was non-contributary with normal birth weight (3.2 kg). He had pallor along with failure to thrive, with weight (6 kg) and length height (69 cm) less than 3rd percentile for age and sex. Local examination of the nasal and oral cavity was normal. His systemic examination was also within normal limits. His hemogram showed-haemoglobin (Hb) of 6.2 gm/dl, Total leucocyte count-5200/ul, platelet counts-165×10^3/u l. Serum ferritin levels were low (5.8 ng/ml) and stool for occult blood positive. His renal functions, liver functions, lipid profile, coagulogram and thyroid functions were normal. X-ray chest and ultrasound abdomen were also normal. An endoscopic examination of the pharynx and gastrointestinal tract was performed and a live leech was visualised in the nasopharynx (Figure 1), which was extracted endoscopically after spraying the surface with 10% lignocaine. The child improved symptomatically after that and on follow had significant improvement in the Hb levels (9 gm/dl) with adequate weight gain (9 kg) after 2 months of follow-up.

Figure 1: Live leech was visualised in the nasopharynx.

DISCUSSION

Leeches are sanguivorous segmented parasitic or predatory worms belonging to class *Hirudinea*. They cause parasitic infestation in humans and other warm-blooded mammals. Most of the species belongs to freshwater but many marine and terrestrial species also occur.[1] Terrestrial species have strong jaws that helps in direct adherence to skin. In dry weather, some species burrow in the soil where they can survive for many months even in a total lack of environment water.[2] Leeches can enter the host body via oral or nasal route. After entry into host body, they use suckers and attach themselves to a host where they secrete Herodian that has anticoagulant action.[3] This results in bleeding that is sucked up by leech. They can ingest large amount of blood and even up to 8-9 times of their body weight.[4] Leech bite is painless as their saliva contains local anaesthetic.[5] Most common site for leech infestation is nose (71%) followed by hypopharynx (14%), nasopharynx (7%) and oropharynx (7%) with other reported sites being urethra, vagina, and rectum. Symptoms depend upon the site of infestation. These include: recurrent epistaxis, anaemia, dysphagia, dyspnoea, haemoptysis, hematemesis, melena, airway obstruction, change in voice etc.[6]

The mean age of leech infestation has been reported as 6.4 years, ranging from 4.5 to 11 years.[7] Our patient is unique, as he is an infant (age-8 months). It is very rare for such young children to get leech infestation as these children usually do not have exposure to lakes and ponds and other wild/forest areas and there was no such history in our case. Only two other cases of infantile leech infestation have been reported previously in literature.[8,9] These two infants had severe anemia, but growth retardation was not reported.[8,9]

CONCLUSION

Leech infestation is a rare cause of nasal blockage in infants and it should be suspected in all children with symptoms of nasal blockage or bloody exudation/ epistaxis, especially in tropical countries. Awareness among care givers of infants and children is required regarding this in endemic regions.

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