

A Rare and Unusual Cause of Epistaxis

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ABSTRACT

Introduction

Leeches are blood sucking parasites of the phylum Amelida subgroup Hirudinea. Leech infestation is known as hirudiniasis. Endoparasitic infestation by leech is rarely reported in literature. The parasites enter the body by bathing or drinking infected water. They attach to the mucosa of the aerodigestive tract and suck blood whereby greatly increasing in size, with resultant clinical symptoms.

Case Report

A 52 year male presented with unilateral epistaxis and nasal obstruction. Nasal examination revealed a live leech. The leech was found lodged in the nasopharynx. The patient was unaware of the leech in his body. The leech was removed alive with the use of a nasal endoscope under local anaesthesia.

Discussion

Leech infestation is a rare cause of epistaxis. Absence of pain and difficult visualisation make the diagnosis difficult and delayed. There are various methods described in literature to remove leeches from the body. General anaesthesia may be required for its removal especially in children and when the leech is lodged in the tracheobronchial tree.

Conclusion

The aim of presentation is to report a rare unusual cause of epistaxis, leech infestation of the nasopharynx and method of removal of the leech safely under local anaesthesia.

Keywords

Leeches; Epistaxis; Nasopharynx.

Leeches are Annelids belonging to the subgroup Hirudinea.¹ Leech infestation is known as hirudiniasis. Endoparasitic infestation by leech is rarely reported in literature. The parasites enter the body by bathing or drinking infected water. They attach to the mucosa of the aerodigestive tract and suck blood whereby greatly increasing in size, with resultant clinical symptoms.² Leeches abound in springs, streams and pools, mostly in tropical countries.³ They are known to enter the body through various orifices, especially the nose and mouth and cause intermittent bleeding.

Leeches attach themselves to human tissues with intention of sucking blood. The saliva secreted by leech contains hirudin, an anticoagulant, and a histamine like vasodilator by which it sucks and feeds from the tissue it attaches.⁴ Though it can cause serious and life

threatening complications, leeches have been used to stimulate circulation to salvage grafts in reconstructive surgery.⁵

Diagnosis is difficult and delayed due to lack of suspicion of the condition and difficult visualisation. Removal should be done gently to remove the leech in toto and prevent bleeding, usually requiring general anaesthesia.⁶

Presented is a rare case of epistaxis due to leech infestation of the nasopharynx, the presence of which the patient did not know or suspect. With proper visualisation and technique, we were able to remove the leech completely under local anaesthesia.

Case Report

A 52 year old male, resident of Ranikhet, Uttarakhand, India, presented to the outpatient with a three day history of bleeding from the left side of the nose. He also had an intermittent feeling of nasal obstruction in the left nostril. He visited a local practitioner who started him on anti-hypertensive therapy for mild hypertension (Tab.

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Atenolol 50mg once a day). However, since his epistaxis persisted and was getting worse, he was referred to the ENT outpatient as a case of hypertension with epistaxis.

The individual gave no history of pain, sneezing, nasal discharge or altered smell sensation. There was no history of trauma or habit of nose picking. He gave no history of visual disturbance, headache or facial pain. There was also no history of any aural symptoms like fullness in the ears, tinnitus or hearing loss. No difficulty in breathing or swallowing was present. The patient gave no history of easy bruising, or taking any anticoagulants. There was no previous history of similar bleeding episodes. There was no family history of any bleeding disorder or hypertension.

On general examination, the individual was averagely built and nourished. His vitals were stable, Blood pressure was 130/80mmHg (on anti-hypertensive). He had no pallor or icterus. Investigations done the previous day, showed a Haemoglobin level of 12.5gm%. His coagulation parameters were all within normal limits.

Endoscopic examination done under local anaesthesia (4% Lignocaine) revealed a blackish slimy mass in the left nasal cavity. On touch it was seen to wiggle! Under endoscopic vision a Tilley's forceps was introduced into the nose along the septum. The mass was gently pulled out with forceps and was found to be alive 9cm x 1 cm leech. (Fig.1) It was attached to the nasopharynx. There was no appreciable bleeding on removal. The right nostril, nasopharynx and throat were clear.

Upon enquiry, the patient disclosed that he had bathed in a freshwater spring about a week prior to the onset of symptoms.

Discussion

Leech infestation is a rare cause of epistaxis. It is not commonly mentioned as a cause of epistaxis in textbooks.⁷ Till date there are very few cases of leech infestation of the nasopharynx have been reported in literature.

The leech is a blood sucking annelid. Both aquatic and land leeches are known to attack humans. Aquatic leeches are found in freshwater springs and streams. Our patient had a swim in a freshwater spring a week

preceding his symptoms. The leech enters the orifices and attach to the mucosal surfaces of the aero-digestive tract (nasopharynx, pharynx, oesophagus and even trachea) or the lower genitourinary tract (urethra or vagina). The leech has a pair of powerful clinging suckers. It injects an anaesthetic so that its presence is not detected and anticoagulant (Hirudin) in order to keep the wound oozing.

They present with signs of bleeding such as epistaxis, haemoptysis or anaemia⁸ and features of local obstruction or irritation. Unprovoked recurrent unilateral epistaxis is the commonest presentation of leech infestation of the nose.³ Leeches can ingest blood upto nearly 90% of its body weight leading to severe anaemia with the need of giving blood transfusions. Asphyxiation may occur if the leech lodges in the larynx, hypopharynx or the laryngeal inlet. A case of hirudiniasis of the eye and a case of bilateral nasal hirudiniasis have been reported in literature.^{9,10} Hence it is imperative to examine other common sites of leech infestation also in cases of endoparasitic infestation by leeches.

Various methods have been used to remove the foreign mass such as hypertonic saline,¹¹ glycerine phenice¹² or by applying a sharp pull.¹³ It is imperative to grasp the



Fig. 1 Live leech removed from the nasopharynx

leech as close to its attachment to the tissue as possible. Leaving the mouth parts can cause persistent oozing, hence one should not tug of pull the leech forcefully.¹⁴ General anaesthesia is preferred in leech removal in children³ and tracheobronchial tree.⁸ In our case local

anaesthesia and a gentle traction with the Tilley's forceps was sufficient to pull the whole leech out.

Conclusion

Leech infestation of the nasopharynx is a very rare entity as a cause for epistaxis and should always be kept in mind while treating a case of epistaxis in a patient belonging to an area where springs are common. Removal is best done under anaesthesia, local or general, with a gentle pull. Other sites of the aero-digestive and genitourinary tracts must also be examined in cases of nasal hirudiniasis for other sites of infestation.

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