



Leech Infestation Of Nasal Cavity - Case Report

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Abstract

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Introduction

Leech is a blood sucking ectoparasite which belongs to class Phylum Annelida. In the saliva of this small creature, there are numerous bioactive compounds that are injected to the host tissue during feeding[1]

Leech infestation usually occurs through contact with water containing leeches when people are swimming or washing their faces in rural streams. Symptoms usually appear 2-3 weeks later after the leech enter the nasal cavity as the leech grows within the nasal cavity over 2 weeks.[2]

Leeches use their anterior suckers to connect to hosts for feeding. Once attached, they use a combination of mucus and suction to stay in place while they inject hirudin into the hosts' blood during feeding.[3]

Case Report:

A 23 year old male presented to the ENT Out Patient Department at DY Patil Hospital, Navi Mumbai with a history of a moving foreign body in the right nasal cavity along with blood stained nasal discharge since 2 days which frequently soaked his handkerchief. He gave a history of marked irritation in the right nasal cavity since 10 days. The patient had gone swimming in a lake 15 days prior and recalls removing a worm like structure from the oral cavity 12 days prior. There was no history of fever, sneezing and headache.

Anterior rhinoscopy revealed a soft fleshy worm bulging out of the right nostril, while attached to the

septum anteriorly. 1ml liquid paraffin oil inserted into right nostril to decrease the itching and break the attachment of leech to the septum so that leech can be pulled out easily. Nasal packing forceps were used to pull the leech out of the nasal cavity. The leech was still alive and around 7 cm long [figure1]. The patient was admitted and administered injection Cefotaxime 1 gram intravenous 12 hourly for 4 days as IV antibiotics along with tablet Fexofenadine 120mg and Oxymetazoline 0.05% w/v nasal drop as nasal decongestant.

Tablet Diethylcarbamazine 100mg TDS for 21 days and tablet ivermectin (6mg) + albendazole 400mg once a week for 2 weeks was also started for the patient.

1. Investigations were carried out which revealed,
2. Hb:13.5 gm/dl, platelet; 190000/um, wbc: 7500/um.

-eosinophils - 6.4 %

-neutrophils - 61.7 %

-basophils - 0 %

-monocyte - 5.8%

-lymphocyte - 26.2%

1. Plain computed tomography was carried out and patient was taken for Diagnostic Nasal Endoscopy.

2. On Diagnostic Nasal Endoscopy an ulcerated wound anteriorly on septum was visualised suspected to be the site of attachment of the leech.
3. The CT Paranasal Sinuses revealed mild mucosal thickening in the right maxillary sinus.
4. Patient was given discharge after 48 hours and asked to follow up after 2 weeks.

The leech after removal from right nostril;[Figure1]



Removal of the leech from right nasal cavity of the patient



Discussion;

Leech manifestation is common in rural areas of India. People travelling in marshy areas or through slow moving brooks or streams are the usual victims.[4]

Portal of entry is by drinking or swimming in water harboring leeches, which gain access to the human body generally through nose and oral cavity. Removing the living leech from the nasal cavity is a very difficult as it has a strong attachment to the nasal mucosa and its slippery body makes the task more difficult. It can deteriorate the general condition of the patient as it can migrate to the nasopharynx, oropharynx and even gaining access to the airway (larynx, trachea, lungs) or esophagus causing epistaxis, haematemesis, hoarseness, respiratory distress.[5]

Leech secretions contain several bioactive substances with anti-inflammatory, anticoagulant and antimicrobial effects[6]. One active component of leech saliva is a small protein, hirudin[7]. It is widely used as an anticoagulant drug to treat blood-clotting disorders, and manufactured by recombinant DNA technology[8] [9]

Discussion:

This case report documents an incident of leech infestation and its management.

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