Unusual Cause of Unilateral Epistaxis: Nasal Leech Infestation

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ABSTRACT

Common causes for unilateral nasal bleeding in adults are benign or malignant tumors and deviated nasal septum. Here we present two cases of recurrent unilateral nasal bleeding due to leech infestation. Though it is not a common cause for nasal bleeding, a clinician should suspect leech infestation for a recurrent nasal bleeding specially in tropical countries like Nepal.

Key words: leech infestation, nasal bleeding, unilateral

INTRODUCTION

Epistaxis is a common complaint. The incidence of an episode of nasal bleeding during a life time has been described as approximately 60%.1 Epistaxis results from the interaction of factors that damage the nasal mucosal lining, affect the vessel walls, or alter the coagulability of the blood, and which may be categorized into environmental, local, systemic and medication-related. Unilateral epistaxis is commonly due to foreign bodies or benign or malignant neoplasms. Parasitic infestation is a rare cause, the most important being myiasis. Leech infestation has not been mentioned as a cause of epistaxis in standard textbooks. Sometimes, a diagnostic dilemma may occur, as in one of our cases. But in a country like Nepal, tropical regions, leech infestation should also be considered an important cause for unilateral epistaxis. Here we present two cases of unilateral epistaxis due to leech infestation.

CASE REPORTS:

CASE 1

A sixty-three-year old male presented with a history of recurrent left-sided nasal bleeding for 5 months. The bleeding was intermittent and 2-5 ml per episode. At presentation his blood pressure was 130/96 mm Hg. Anterior rhinoscopy did not reveal any nasal pathology that could have caused epistaxis. There was no active nasal bleeding and no bleeding point could be identified. Routine blood investigations were

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normal. The coagulation profile was normal. Computed
tomography of paranasal sinuses (CT–PNS) had already
been done elsewhere and did not show any abnormality.
He had already been treated with oxymetazoline nasal
drops, antibiotics and systemic decongestants from
other clinics. Endoscopic evaluation of the nasal cavity
revealed a blackish mobile leech attached to the lateral
aspect of the middle turbinate. The leech retracted into
the deep part of the middle meatus when the endoscope
was introduced. The leech was removed with forceps
after applying a 10 % lidocaine spray. The patient
attended a follow-up after two weeks. He was totally
asymptomatic.

CASE 2
A thirty–eight-year man presented with a history of
recurrent, painless, left-side nasal bleeding for one
month. The bleeding used to stop spontaneously. There
was no history of trauma, high blood pressure or bleeding
disorders. On anterior rhinoscopy of the left side, there
was a blackish live worm on the middle turbinate. The
first attempt of removal was unsuccessful because
the worm retracted and disappeared. Then a 10 %
idocaine spray was administered into the nasal cavity
to paralyze the worm. Five minutes later, anterior
rhinoscopy was done. This time the worm was seen
in the anterior part of the nose. (Figure 1) and was
removed with forceps. It was black in color, measuring
5cm in length and 0.5 cm in width (Figure 2). After a
one-month of follow-up he was asymptomatic.

DISCUSSION
Leeches are annelids or segmented worms with a
powerful clinging sucker at each end. Common species
that can infest humans are Dinobdella ferox, Hirudinea
granulose and Hirudinea viridis.2 Both aquatic and land
leeches are known to attack humans. Leeches are
generally found in puddles of water and streams. When
water is drunk from these streams and from puddles,
leeches can infest the human body; they can then be
located anywhere in the upper respiratory tract from
the nose to the larynx. They adhere to the mucosa with
the anterior sucker and they live on blood here. Both
of our cases used to drink water directly from the river
and that may be the source of entry of the leech into
the nasal cavity.

The saliva of the leech contains hirudin, which inhibits
thrombin in the clotting process, and histamine-like
substances which may cause continuous bleeding by
preventing closure of capillaries.3 The leech saliva also
has local anesthetic properties. That’s why the wound
caused by the leech is not painful.4

Epistaxis is a common problem and most of the time its
case is obvious. But nasal bleeding caused by leech
infestation sometimes may cause a diagnostic dilemma
as in our first case. This is because every corner of
the nasal cavity can not be visualized easily and the
leech inside the nose may retract to the areas which
are difficult to visualize during anterior rhinoscopy. In
such a situation, endoscopic evaluation of the nose is
helpful. In our first case, the leech could not be seen
until the endoscopy was done.

Respiration by the leech takes place through its body
wall. It can be paralyzed with anesthetic agents like
lidocaine. The suffocation caused by anesthetic agents
causes the worm to migrate towards the surface and it
also makes the attachment of the leech to the mucosa
weak. It can then be removed easily. In both cases, we
used 10 % lidocaine spray to paralyze the worm before
its removal.
CONCLUSION

Leech infestation should be considered in the differential diagnosis for epistaxis, particularly in leech-endemic areas. Every attempt should be made to locate the source of epistaxis that does not respond to simple compression. Endoscopic evaluation of the nasal cavity is mandatory in recurrent epistaxis, particularly when the cause is not obvious.

REFERENCES


