

## CASE REPORT

### NASAL LEECH- A RARE CAUSE OF SEVERE ANEMIA

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Spontaneous epistaxis, nasal trauma and foreign bodies are common causes of nasal bleed in children. Epistaxis and haematemesis due to leeches have been reported in literature. Here we present a rare case of severe anemia caused by a single leech infestation of nasal cavity that required blood transfusion.

**Keywords:** Nose, Anemia, Leech

## INTRODUCTION

Anemia is extremely common in developing countries and its prevalence and etiology is complex.<sup>1</sup> Numerous illnesses precipitate anemia in setting of low body iron stores, as iron deficiency affects 20% of world population.<sup>2</sup> Nasal leech infestation can cause epistaxis and haematemesis.<sup>3</sup> Leeches attach to the tissue by two muscular suckers, use three teeth inside their anterior sucker for biting and blood amounting ten times its body weight is sucked in to stomach by peristalsis<sup>4</sup>.

## CASE REPORT

In this case report a three-year-old child presented with severe anemia (hemoglobin 3gm/dl). The child was asymptomatic ten days prior to his presentation with epistaxis and haematemesis. A family physician examined the child initially and referred the child to casualty department in a peripheral hospital where nasal packing was done. Epistaxis decreased in severity but haematemesis was reported to continue. The child was referred to Ayub Teaching Hospital as a case of bleeding disorder for work up.

On physical examination the child was severely anemic. There was no evidence of bruises, petechiae or hepatosplenomegaly. Total leukocyte count, platelets count, bleeding time, prothrombin time, and activated thromboplastin time were normal. After transfusing fresh blood nasal packing was done for the second time. The epistaxis and haematemesis continued. The child was referred third time to ENT surgeon who on detailed local examination found a seven-centimeter long live brown leech (Fig-1). This was removed from nasal cavity with the help of forceps. Epistaxis and haematemesis improved. On close enquiry drinking water was from the pond, also used by the animals, which could be the source of leech.

## DISCUSSION

Leeches are invertebrate which can enter anatomical orifices of man and animals and during process of sucking blood it releases an anticoagulant responsible for continuous bleeding from the bite site.<sup>5</sup> Leeches can settle in vagina causing vaginal bleeding<sup>6</sup>, in respiratory passages causing respiratory obstruction<sup>7</sup>, in bladder

causing hematuria.<sup>5</sup> A case of multiple leeches causing epistaxis has been reported in literature.<sup>3</sup> The case of this child is unique as a single leech within ten days was responsible for severe anemia requiring blood transfusion and such a case has not been reported in available literature. In case of nasal cavity other methods have also been mentioned in literature to remove the leeches including application of hypertonic saline, local anesthetic or a lighted match sticks.<sup>8</sup>

**Fig-1: Leech recovered from the nasal cavity of a three year old child**

## CONCLUSION

The pond water in this child seems to be the source of entry of leech. The leech infestation as a foreign body nose should be considered as a rare cause of epistaxis/haematemesis in the parts of the world where leeches are common.

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