

Leech as a cause of abnormal vaginal bleeding: Presentation of three cases in adults

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Abstract

Vaginal bleeding in women during their reproductive years is a common presentation with diverse list of potential causes and hence differential diagnosis. The definitive diagnosis relies on meticulous history taking, past obstetric/gynecological and medical history as well as a judicious examination including speculum examination. Leech bites are a recognized cause of bleeding from any human orifice upon exposure to water which is infested with leeches. A high level of suspicion is necessary to make the diagnosis and institute cost-effective definitive treatment for leech bite induced bleeding including vaginal bleeding as has been revealed by the three cases presented in this report.

Introduction

Abnormal vaginal bleeding is one of the commonest gynecological complaints. Its differential diagnosis covers almost the entire field of gynecology and some Diseases that originate outside the reproductive system. When an abnormal uterine bleeding is not due to organic cause, then by exclusion, the diagnosis of dysfunctional Uterine bleeding is assumed¹.

Excessive uterine bleeding has been defined in quantitative terms, including menses of more than 7 days, menstrual cycle of <21 days and total menstrual blood loss of >80ml. Rather than this specific figures, however, abnormal uterine bleeding should be defined in terms of deviation from an individual patient's established menstrual pattern^{1,2}.

Leech bite as a cause of abnormal vaginal bleeding has been reported in Mekane Hiwot Maternity Hospital in 5 cases since 1992.

A leech is a blood sucking water worm, belonging to the phylum Annelida, class Hirudinea. It is a parasite to man and other animals, producing a condition known as Hirudiniasis; infestation by leech. Leeches were being used as a means of blood letting, a practice that was common up to the middle of the nineteenth century but abandoned completely now³⁻⁶. Leeches are sources of Hirudin an anti-coagulant principle secreted by their buccal glands⁷⁻⁹.

In external hirudineasis, Leeches attach themselves to the skin and such blood. After the leeches drop off, bleeding may continue as the result of the action of hirudin. Bites may become infected or ulcerated^{3,4}.

Leeches are found in lakes, slow moving streams, ponds and marshes, and on moist vegetation in humid environments such as jungles. About 75% of the known species of Leeches are blood sucking external parasites. Digestion is very slow, and Leeches can tolerate long period (over one year) of fasting between meals⁴.

Leeches reproduce sexually, they are hermaphroditic with cross-Fertilization. They are said to have more advanced brain among the worms, and thus are nowadays used in many CNS research activities^{3,4}.

Figure 1: Extract of an exemplary sample leech



Following is a report of 3 cases of leech bite as a cause of abnormal vaginal bleeding.

Case one

Case one is a thirty five year old Para 4 lady who was referred from Adi tekelezan Health center to MHMH due to vaginal bleeding of 8 days' duration. The bleeding was bright red, excessive, with clots and not associated with pain, but an ill-defined discomfort, feeling as if something was moving inside her genitalia. She had regular periods. Her LMP was 8 days before the onset of the abnormal bleeding. She started to have the bleeding when she was in a holy water in a place called "Amna Tekle Bahri", where there is a water fall and a pond of fresh water which the patient was using.

On physical examination she was conscious, with normal vital signs and a slightly pale conjunctiva. Vaginal speculum examination revealed a reddish-brown actively mobile worm attached to the posterior lip of the cervix. The worm was detached and removed using an ovum forceps, put in water where it stayed alive and identified as a leech. Bleeding stopped soon. The patient was discharged in a good condition with hemoglobin on 8gm% on iron tablets.

Case two

Case 2 was a twenty seven year old Para 4 lady who presented with vaginal bleeding of 10 days' duration. She had excessive bleeding with clots and a similar feeling in her genitalia as in case one. She had regular menstruation, and her LMP was 21 days before her presentation to the hospital. She has been in a holy water in a place called "mealdi". She has not been in any health facility; i.e. not a referral case.

On physical examination, she was conscious, tachycardic with pulse rate of 112/min and had very pale conjunctiva, and a hemoglobin of 4gm %. On vaginal speculum examination a mobile worm was seen over the posterior vaginal fornix which was removed similarly to case one and identified as a leech. Bleeding decreased markedly immediately thereafter but had oozing until the next day. She was transfused with 3 units of blood and discharged in good condition with post-transfusion hemoglobin of 9.5 gm% on the fifth day on iron tablets.

Case three

Case three was a Para 6 lady who presented with minimal vaginal bleeding of 15 days' duration. She had regular menstruation, which she completed a week before the onset of the bleeding.

She was referred from Adi Tekelezan Health Center with a provisional diagnosis of dysfunctional uterine bleeding. On physical examination, she was conscious with normal vital signs and pink conjunctiva. On pelvic examination, perineum was blood stained cervix was closed, uterus was normal in size and consistency, and adnexae and pouch were free.

The patient was admitted for observation. While she was in the ward, further inquiry to the history revealed that she was in a holy water in Amna Tekle Bahri. Speculum examination was done and a leech was found on the posterior lip of the cervix. The leech was removed in the same way as in cases 1 and 2. Bleeding stopped soon after and the patient was discharged in good condition the next day.

Discussion

Leech as a cause of vaginal bleeding has been seen in Orotta maternity hospital in 5 cases since 1992. History was found to be very important in almost all the cases. All the cases presented with vaginal bleeding with the range of 7-15 days and most of the patients had a feeling that something was moving inside the genitalia. All of them acquired the worm in a holy water from a pond. The amount of bleeding varied from oozing to excess with clots. Blood transfusion was necessary only in 1 out of the 5, the rest were sent with iron tablets.

Definite diagnosis was reached by speculum examination in all the cases. The site of worm

attachment was on the posterior lip of the cervix in 4 cases and over the posterior vaginal fornix in 1 case. Infection or ulceration was not seen. The leeches remained alive after removal in all of the cases. All except one of the cases were referrals and the place where they acquired the worm was from different regions:

- 2 where from Amna Tekle Bahri
- 1 from Adi Yakulu (Ruba Meharena)
- 1 from Mealdi (May Etmet)
- 1 from Shima Nigus Tahtay

The fact that the leeches were acquired from different areas show us that the problem is widely spread in Eritrea. In all the cases except in 1, bleeding stopped soon after removal of the leech.

The hospital stay ranged from 5 hours to 5 days, severe anemia and death has been reported in Kenya as a result of pharyngeal leech² but death was not reported in our cases.

Recommendation

1. History and physical examination, specifically speculum examination is very important in reaching a definite diagnosis when ever abnormal vaginal bleeding is confronted. We have to have high index of suspicion to Leech infestation as the cause of the problem. All health personnel in particular and the society in general have to be aware of the problem.
2. The Ministry of Health should be aware of the problem and take control or eradication measure in conjunction with the relevant line ministries..

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