

Persistent vaginal bleeding secondary to a leech infestation: A case report

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SUMMARY

A 16-year-old college student presented to the community health clinic with persistent vaginal fresh spotting for 2 months. History and physical examination did not reveal any cause. One early morning she passed out a live leech per vagina. She had history of swimming at a natural stream in the village which is known to harbour leeches. Gynaecological examination and further investigations did not reveal any complications. Thus, counselling on preventive care and personal hygiene is crucial in the management of this condition.

INTRODUCTION

Abnormal vaginal bleeding can be due to many causes. In peripubertal age, it may be associated with hormonal imbalance and pregnancy must always be excluded. Rare causes such as foreign body in the vaginal and worms infestations by *ascaris lumbricoides* have been previously reported.¹ Most of the physician may investigate for gynaecological causes but must have high index of suspicion on rare causes if the presentation is atypical or the presenting features does not match any common diagnosis. This clinical case illustrated a young patient who presented with per vaginal fresh bloody spotting of acute onset and finally had an unexpected diagnosis.

CASE REPORT

A 16-year-old school girl from Malaysia presented with a history of vaginal bleeding and dysuria for 2 months duration associated with lower abdominal discomfort. She attained menarche at the age of 13 and her regular menstrual flow was 5 to 7 days. There was no history of menorrhagia or dysmenorrhoea. In the past 2 months, she started to experience irregular vaginal bloody spotting not related to her usual menses. The per vaginal spotting came at irregular times between her menses, contained fresh blood staining her sanitary pad but it was not associated with any blood clots. There was no foul smelling pus discharge. She also complained of occasional itchy sensation at the genitalia region with intermittent dysuria but the micturition flow remained normal, no history of cloudy urine or urinary retention. She is single and had no history of sexual activity. There was no history of fever, weight loss, or any other systemic symptoms. No significant past medical or surgical history noted. She visited her family doctor once and prescribed symptomatic treatment for urinary tract infection but the vaginal spotting persisted. After about 2 months from

the initial onset of symptoms, one morning she woke up and found blackish soft tissue dislodge from her genital region. She described the black tissue was moving as it came out from her vagina. Without delay, she rushed to the nearby community clinic bring along the blackish soft tissue on her sanitary pad (Figure 1).

Physical examination revealed an average built adolescent girl. Her blood pressure 120/80 mmHg, pulse 82 beats per minute, regular and good volume. She was pink and had no jaundice. Her abdomen was soft on palpation and no mass palpable. Cardiovascular, respiratory, and neurological system examination were normal. External genitalia were normal but some dry blood stained at perivaginal region. No speculum examination was attempted due to her virginity.

Close examination of the blackish tissue she brought along on her sanitary pad revealed a worm-like organism. It measured 2.5 cm in length. The body was round and elongated and soft in consistency with surface showed segment like appearance. The appearance fit the feature of a leech (Figure 2). At the time of examination, the organism appeared dead.

In view of the findings, further exploratory history taking on risk factors revealed the patient had history of frequent visits to a waterfall area near her house and swimming at the natural stream there. This was the most likely reason for the leech infestation and most probably the leech has entered her vaginal while swimming. The clinical diagnosis was vaginal bleeding secondary to leech infestation. Due to the remote location of the clinic, this organism was not able to send to any biological laboratory for species identification.

Further investigations showed haemoglobin 11 g/dL. Urinalysis revealed normal parameters, with no haematuria or proteinuria. Ultrasonography of her abdomen and pelvis revealed normal anatomy and uterus and ovary were normal size. There was no active bleeding and her symptoms subsided following discharged of the organism from her vaginal. Subsequent follow-ups till now she is asymptomatic and no new symptoms. She was counselled on personal hygiene and the associated risk of swimming in natural pond and river.

DISCUSSION

Abnormal vaginal bleed can be due to many causes. Mostly are due to hormonal abnormalities, pregnancy-related

This article was accepted: 26 July 2022

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Fig. 1: Blackish leech and fresh blood stained on the sanitary pad.



Fig. 2: Close up view of the leech measured 2.5 cm.

problem, genital trauma, and medical bleeding disorder. Rare causes have been reported such as foreign bodies in vagina, tumours, and parasitic worms infestation.¹ Leech bite of cutaneous layer is very common in tropical countries. However, leech bite or infestation involving the vaginal mucosa is uncommon but there were cases reported worldwide especially in developing country.² Leech bite is known to be associated with vaginal bleeding, anaemia and anaphylaxis.^{2,3} It is important to consider this as a differential diagnosis of abnormal vagina bleed when common aetiology has been excluded. The disease is usually mild but it may be associated with mechanical obstruction and prolonged bleeding which lead to secondary anaemia.^{2,4}

Leeches are legless invertebrates, under phylum Annelida, class Hirudinea. There are two types of leeches: the terrestrial and the aquatic leech. Swimming in natural pond, river, or activity near to these natural swampy location predispose to aquatic leech infestation as illustrated in this patient. Cases are also more prevalent related to high moisture season such as those with monsoon climate.^{2,5}

When involving the pelvic region, the most common anatomical site for leech bite is in the vaginal wall followed by vulva. When leeches bite, they secrete a natural anticoagulant named Hirudin. It is a potent thrombin inhibitor that is required for continuous flow of fresh blood into the organism.⁵ Local vasodilator agent (histamine) and hyaluronidase are also present in the leeches' saliva conferring an anaesthetic effect on its victim therefore the patient usually does not feel any pain or discomfort.^{2,5} Our patient also had similar encounter where she never experienced any pain at the perineum region.

Leech attachment in the vagina is more problematic as it can cause persistent per vaginal bleeding that leads to anaemia without the patient ever realising this. Pulling the leech out from the attached site can lead to local trauma and persistent bleeding. Extra caution needs to be taken especially when it involves a girl with intact hymen.

Prevention is one of the crucial parts of management. If the patient goes back to the community and is exposed to a similar risk, the problem may recur. Therefore, they must be counselled on the proper precautions to be taken especially during outdoor activities. Important advice given to this patient included to avoid swimming in natural ponds or streams where leeches are prevalent and to always take care of her personal hygiene, which is of paramount importance.

CONCLUSION

Leech infestation should be considered as a differential diagnosis in an atypical vaginal bleed after excluding common gynaecological causes, especially in the community where leeches are prevalent. A thorough history, physical examination, and a high index of suspicion are necessary for early detection and reduction in morbidity especially in rural settings. Counselling on personal hygiene and avoiding activities in leech prevalent environment is important part of the management.

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