

Postmenopausal Vaginal Bleeding after Infesting with Leeches

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Article information	Abstract
<p>Article history: Received: 5 May 2011 Accepted: 25 May 2011 Available online: 27 July 2011</p>	<p>Diagnosis and therapeutic measures are immediately taken for abnormal postmenopausal vaginal bleeding, because its causes range from atrophic endometrium to malignancy. In this paper, abnormal bleeding is reported due to leech infection. The patient is a 69-year-old woman who has reached menopause for 12 years and has visited a physician because of vaginal bleeding. The patient had no history of abnormal bleeding or medication. The patient first refused to get hospitalized and continue medical care, but she finally accepted to take diagnostic and therapeutic procedures after a few times of visit and increased bleeding. During general anesthesia and upon opening vagina, a large hemorrhagic and moving mass was observed at the upper posterior vaginal wall which was removed with surgical forceps. Surprisingly, this mass was a leech. Bleeding at the leech's junction was stopped after half an hour using sterile gas and the patient was discharged on the next day.</p> <p>Copyright © 2012 Zahedan University of Medical Sciences. All rights reserved.</p>
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Introduction

Abnormal vaginal bleeding is one of the problems of women during menopause the occurrence of which in this period ranges from spotting to severe bleeding and despite causing anemia it can represent menopausal disorders, including malignancy [1]. Therefore, it seems essential to obtain a detailed history and physical examination and control of patients based on diagnostic findings. Atrophic endometrium, polyps, and reproductive system cancer are of the cause of postmenopausal bleeding [1]. The cause of vaginal bleeding in the study of Yaghmaei was also a leech and reviewing the studies from 1990 showed that only two cases of postmenopausal vaginal bleeding have been reported to be caused by leeches [2-4]. There are different types of leeches a few of which live in saltwater and freshwater. Leeches adhesion to the mucosa is usually asymptomatic and painless and their saliva contains hirudin, which is a strong anticoagulant which causes coagulopathy and bleeding by inhibiting thrombin and other salivary antiproteases [5]. This paper examines a case of postmenopausal bleeding caused by leeches.

Case presentation

The patient was a 69 years old female who had referred to physician in September 2010 in Gonabad with complaints of painless vaginal bleeding. The patient has reached menopause for 12 years and had been suffering from no clinical problem during this period. There was also neither an evidence of systemic disease or trauma nor a history of taking hormonal drugs before the bleeding

started. No abnormal findings were observed during the general physical examination, and despite the doctor's advice, the patient refused to do a vaginal examination. After receiving the results of blood tests and ultrasound that were normal, the patient still refused to perform other diagnostic and therapeutic procedures (vaginal examination, diagnostic curettage). Therefore, she was only treated with hormonal drugs. Three days later the patient again referred with continued vaginal bleeding. She was mild pale with hemoglobin of 10 mg/dl. At this time of visit, the patient gave consent to perform diagnostic curettage. After anesthesia consulting, the patient was immediately transferred to the operating room. After preparing the patient and opening the vagina with valve, a black hemorrhagic mass with wave-like motions which looked like leech on the surface of the vagina on the upper 1.3 of the vagina wall. The leech was removed using forceps and bleeding at the leech's junction was controlled using sterile gauze bandage and the bleeding stopped after about 30 minutes. During the examination on the next morning, the patient had no bleeding from the junction of leeches. Then the patient's history-making showed that the patient has used the village creek freshwater for taking a bath.

Discussion

Postmenopausal vaginal bleeding requires rapid diagnostic and therapeutic measures. Bleeding risk factors in these ages include atrophic endometrium, use of hormonal medications, polyps and uterine cancer [1]. To determine the cause of bleeding, vaginal physical

examinations, especially vaginal examination, requesting ultrasound and tests and detailed history-making are of high importance [1]. In this study, the cause of postmenopausal bleeding is the leech conjunction to vaginal mucosa. According to our knowledge and studies, it seems this is the third case of infection with leeches, which has caused postmenopausal bleeding. However, Yaghmaei has also reported vaginal bleeding caused by leech in a teenage girl [2]. Leech conjunction has caused bleeding from the nose, vagina and rectum [6,7]. Bleeding caused by leech conjunction to mucus is due to the secretion of a strong anticoagulant called hirudin and hyaluronidase [5].

In the present case, the leech was removed using surgical forceps under general anesthesia. Despite the fact that in several other reported cases, leech was also removed from mucous during general anesthesia; the leech can be also removed from the tissue without anesthesia or anesthesia drugs using hypertonic saline [8]. In this case, bleeding was stopped using compression bandage and sterile gas. In another study, vaginal

bleeding was stopped using compression bandage, but it seems that if bleeding does not stop, sterile gas must be impregnated with thrombin solution [8]. There is no need to use antibiotics to prevent leech junction infection. In the reported case, bleeding was completely stopped on the next morning and the patient was discharged with good general status, but in several studies, high volume of bleeding from the leech junction had caused the patient's need for blood transfusion. Although leech infection is rare, it can lead to severe vaginal bleeding. What seems essential is that women when refer with complaints of postmenopausal bleeding and mention their history of swimming or bathing in the creek water, leech infection should be considered as differential diagnoses.

At the end, it is suggested that all people and health personnel who work or travel through rural areas should be informed of leech infections and its complications. In addition, it seems that required health and medical training should be given to the aged people so that if clinical problems occur, they could accept diagnostic and therapeutic measures faster and more informed.

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