

An Unusual Cause Of Vaginal Bleeding: A Case Report

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Abstract

A 9 years old girl was admitted to Hospital USM with vaginal bleeding. She had a history of swimming in a river prior to the incident. She was pale. An aquatic leech bloated with blood detached from the vagina after 20 milliliters of normal saline flushing of the vagina. The bleeding continued after the detachment. The patient needed 1 unit (250 milliliters) of Packed Cell transfusion. The bleeding stopped 24 hours later. Professionals must be aware of the possibility of leech bites in the vagina as the differential diagnosis for abnormal vaginal bleeding, especially in places where leeches are prevalent.

CASE REPORT

A 9 years old girl was referred to our hospital because of vaginal bleeding (blood loss about 250 ml). She denied having a history of trauma or any possibility of sexual abuse. However, further questioning revealed that she had a swim in a nearby river prior to the incident. She had not attained her menarche. She had normal growth development for her age. No significant medical or surgical history was noted.

The patient was an average built girl. No evidence of malnourishment was noted. Her vital signs were stable. She was anaemic, with the haemoglobin level of 7.3g/dL. No abnormality was detected in her cardiovascular, respiratory and abdominal examination. Examination of her genitalia revealed a slow oozing blood coming through the vagina. No evidence of trauma was seen. Her hymen was intact. Per rectal examination revealed no abnormality. No speculum or vaginal examination was attempted.

In view of the history of having a swim in a river, we suspected her to have leech bite in the vagina. Owing to that, about 100mls of normal saline was flushed into the vagina, carefully not to cause any trauma to the hymen. After flushing about 20mls of normal saline, a leech bloated with blood measuring about 2cm in length came out of the vagina. However, the bleeding continued.

Blood was taken for haemoglobin level, coagulation profile as well as grouping and cross matching. The girl's coagulation profile was normal, but her haemoglobin was only 7.3g/dL. A conservative management which included monitoring of the patient's vital signs and blood loss, and

transfusion with 250 units of packed cell was given. The bleeding stopped 24 hours later and the patient was discharged home well on the next day.

DISCUSSION

Leech bites in the vagina are an uncommon problem. However, its occurrence should be considered in patients who present with vaginal bleeding and live in moisture area such as those with monsoon climate.

Leeches belongs to a class of legless invertebrates called Annelids. They have a sucker at both ends. The anterior sucker, which is found at the head, creates the bite wound and is responsible for feeding. The other sucker is located at its tail, used for attachment to the host while feeding.

The land leech, which is the commonest one, is usually found in swamps or damp areas. It attaches to the skin when the host passes by. It cannot have contact with water, as it cannot swim. Aquatic leeches are less common, but are considered to be more dangerous. They can attach not only to the skin, but also in the mouth, throat, lungs, vagina, urethra and other internal organs. They are usually found in fresh water with slow stream such as the river described in this case. However, less commonly they may also be found in fast streams or salty water.

Even though a leech only sucks about five milliliters of blood before it detaches itself from the host, the bite wound may continuously bleed for the next 24 to 48 hours. This is due to the presence of an anti-coagulant substance (hirudin) in its saliva, which is a potent inhibitor for thrombin.

Thrombin activates the conversion of fibrin from fibrinogen

and promotes platelet aggregation. Hirudin therefore will reduce blood clot formation by inhibiting the action of thrombin. There are also other substances that are present in the leech saliva such as local vasodilator agent (histamine) and hyaluronidase. It also has the anaesthetic property, causing patient to be painless during the bite.

The leech can be removed by using salt, salt water, tobacco water or even vinegar. These agents will cause the leech to vomit and therefore detach. Leeches should not be pulled out during feeding as this may cause tearing of the host epithelium and is prone for infection. Without treatment, a leech will usually fall off after about 20 minutes of feeding. Leeches who attach in the internal organs, such as in the vagina, are more difficult to deal with. Flushing of the vagina with normal saline solution may cause the detachment. Extra caution needs to be taken especially as it involved a girl with an intact hymen. The procedure of vaginal flushing should be done without causing hymen tear.

The treatment of a leech bite into the vagina only needs supportive treatment. Provided the patient's coagulation profile is normal, only blood transfusion needs to be given in order to replace the amount of blood loss. No surgical intervention is needed. However, an extra medical attention needs to be given in patients who develop complication of leech bites. One of the complications is wound infection. In this case, a wound infection should be suspected when patients start to have fever with foul smelling vaginal discharge. If this condition occurs, patients should be covered with parenteral antibiotics. Development of allergic reaction to leeches has been reported. Patients with allergic

reactions may present with red blotches of the skin, itchy rashes of whole body, swelling of the body away from the bite site, fainting attack, lightheadedness and dizziness. In more severe reaction, a patient may have bronchospasm, leading to acute respiratory failure. These patients need an emergency treatment to secure the airway. In mild cases, the allergic reaction may be resolved by administration of antihistamins and steroids.

CONCLUSION

In conclusion, a leech bite need has to be considered as a cause of vaginal bleeding, especially in areas where leeches are prevalent. Most commonly, conservative treatment is all that is needed by the patient. However, the complications of leech bites such as wound infection and allergic reaction need to be considered. A thorough history and vast experience of the gynaecologist is mandatory.

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