Case Report

A Case of Tinea Saginata (tape worm) Infestation of the uterus presenting with abnormal vaginal bleeding

Sadiah Ahsan[1], Samiah Ahsan Zia[2], Jameel Ahmed[3]

Departments of Obstetrics and Gynaecology[1] and Medicine[3], Baqai Medical University, and Department of Histo and Cytopathology[2], OMI Hospital, Karachi.

Abstract

There are many reported causes of abnormal uterine bleeding. We report an unusual case of uterine bleeding caused by tapeworm infestation, mimicking retained products of conception in a 35 year old multipara.

Introduction

Tapeworms, or cestodes, are large worms (T. Saginata may be 25 mm long), which mainly infest the intestines after ingestion of viable cysticercus (larvae) of the parasite in undercooked cooked muscle of beef (T. Saginata) or pork (T.Solium). They have a worldwide distribution. In muslim countries like Pakistan, Taenia Saginata is predominant, as pork is hardly consumed. Man is the definitive host. Adult tapeworms reproduce by producing proglottids in the intestines, which mature and become gravid with 80,000 to 100,000 eggs. These detach and migrate via the anus or are passed in stools. These eggs may survive for months to years, may be ingested by grazing cattle, whence it releases the oncosphere in the intestinal wall, which migrates to its muscles and forms the cysticercus, a cyst like structure. These cysticerci can survive for several years in the animal. Once this undercooked meat is consumed by man, the cysticerci develop into adult tapeworms over 2 months, and may survive for 30 years or more.

Clinical symptoms may be only mild abdominal cramps or the passage of proglottids via the anus.[1,2]

Case Report

Mrs. M.Z, 35 years old Baluch woman hailing from Zhob, presently residing in Orangi Town, presented with continuous fresh (bright red) bleeding per vaginum since 3 months. The bleeding was not profuse (no clots), but intermittent for 2 to 3 days, stopping for a few days and then restarting and as some days soaking nearly two to three sanitary pads. This was preceded by a Dilatation and Curettage which was performed at a local Orangi Town Clinic for an incomplete abortion of a 16 weeks duration pregnancy, 3 months back. She had also received a course of Ciprofloxacin and Metronidazole. There were no other complaints except for backache and intermittent, griping pain in the left iliac fossa, aggravated by movements and relieved by some unknown medication prescribed by her local general practitioner. She had been married for 20 years, para 7 (all children alive and healthy from home deliveries) with another prior miscarriage, apart from the one preceding her current problem. The last normal delivery was 4 years back. Prior to her current problem, she had had normal regular periods with mild dysmenorrhea.

General examination revealed normal blood pressure, pulse and temperature with mild anaemia (Hb 9 g). Vaginal examination showed small amount of fresh blood in the vagina. The external cervical os was multiparous while the internal was closed. The uterus was retroverted and bulky. Urine DR was normal and her random blood sugar was 69 mg/dl.

Pelvic Ultasound showed a retroverted uterus measuring 8.5 cms x 5.6 cms. An echogenic bulge measuring 2 cms x 1.6 cms was seen in the posterior wall of the uterus, resembling retained products of conception. Adjacent to this in the uterine cavity was a hypoechoeic area measuring 1.2 cms x 0.6 cms, and what appeared to look similar to a collapsed gestation sac. Both ovaries were normal.

A diagnosis of incomplete abortion was made and she underwent another dilatation and curettage. During this procedure a small amount of endometrial curettings were obtained, but no retained products, instead 2 segments of live tape worms measuring approximately 0.5 cms and 1 cm were retrieved. These were submitted for histopathology in formalin and one without any preservative in a container, and were confirmed to be gravid segments (proglottids) of Tinea Saginata. The endometrial curettings showed no retained products of conception, but instead showed inflammed endometrium, with a few isolated Tinea Saginata eggs (Figure 1).

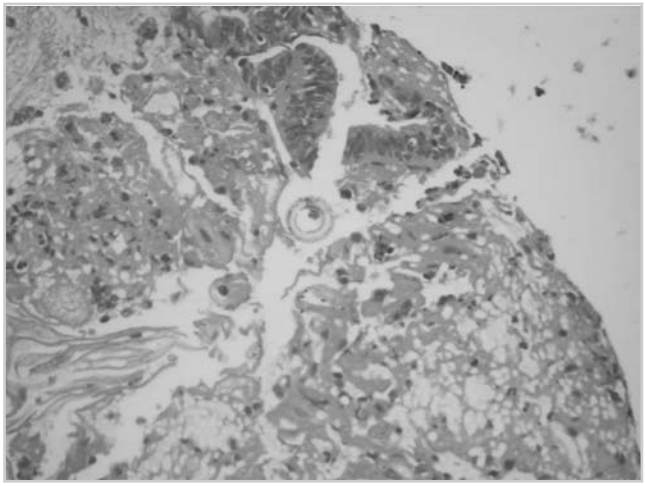

Figure 1. Endometrium with embedded T. Saginata egg.

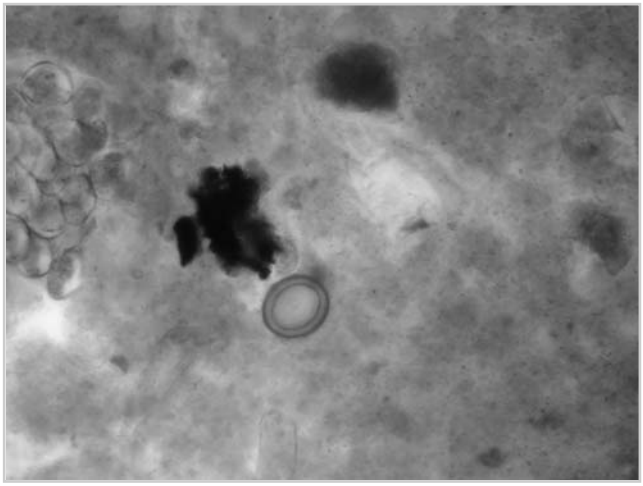

Figure 2. Stool microscopy showing T Saginata eggs.

Postoperatively stool microscopy revealed T. Saginata eggs (Figure 2). Her entire family was advised to have the same done and a 3 day course of Mebendazole prescribed, as the preferred drugs of choice, Praziquental and Niclosamide were unavailable. On completion of the course three repeat stool examinations on 3 successive days were clear. An Ultrasound of the whole abdomen and pelvis a week after the treatment was also unremarkable, showing normal structures. This patient failed to return for follow up after discharge a week later, but was reported to be fine after 6 months by her family physician.

Discussion

When a woman presents with vaginal bleeding following a miscarriage, as in this case, the most likely diagnosis would be retained products of conception. Worm infestation would not usually be considered in the differential diagnosis. In a review of literature there are case reports pertaining to acute pancreatitis[3], jejunal perforation[4], tapeworm in a stoma[5], and Mecknel's diverticulum.[6] However, similar case of female genital tract tapeworm infection was not encountered. In this case the bleeding was bright red (fresh bleeding), intermittent and small in amount, and there was no history of passing any tissue per vaginum.

Most likely this was a chronic intestinal infestation with the proglottids passing via the anus entering the uterus via the vagina, (this may have been aided by sexual intercourse) and embedded there releasing their eggs, a few of which were seen embedded in the endometrium on histology (Figure 1). Two segments of live tapeworm were obtained from the uterus at the time of curettage. It is possible that her infestation has not been completely eradicated as we did not use the drug of first choice, due to non availability, however her stool microscopy was clear in the week following treatment on 3 consecutive days. Indirect follow-up after 6 months was obtained from her family physician who had initially brought her for treatment, who reported her to be well without any complaints. As patients become asymptomatic they do not see a need to visit the doctor again despite counselling in our set-up. This patient had relief from her abdominal and gynaecological symptoms following the curettage and drug treatment, and probably will not return until she has a problem again. This case remains an extremely unusual cause of abnormal vaginal bleeding.

Acknowledgements

Prof Dr. Naila Kiyani, Department of Pathology AKUH, for her assistance in photography of the specimens, Prof Bilquees Mujib, Department of Parasitology of Baqai Medical University for her assistance in the diagnosis of this case.

References

1. Goldsmith R S, Infectious Diseases: Protozoal & Helminthic. Current Medical Diagnosis & Treatment 2003, 4th Edition, Edited by Tierney, Mcphee & Papadakis, Lange Medical Books / McGraw Hill, New York, Chicago, London, Toronto, 1454- 1456.
2. Schantz P : Tapeworms (cestodiasis).Gastroenterol Clin North America 1996; 25-637-53.
3. Liu YM, Bair MJ, Chang WH, Liu SC, Chan YJ. Acute Pancreatitis caused by tapeworm in the biliary tract. Am J Trop Med Hyg 2005; 73:377-80.
4. Jongwutiwes S, Putaporntip S, Chantaachum N, Sanpatanukul P. Jejunal perforation caused by morphologically abnormal Taenia Saginata infection. J Infect 2004; 49:324-8.
5. Van Roermund JG, Klaase JM. A woman with tapeworm in a stoma. Ned Tijdshr Geneesked 2003; 147:2020.
6. Chirdan LB, Yusufu LM, Ameh EA, Shehu SM. Meckel's diverticulitis due to T. Saginata: Case report. East Afr Med J 2001;78:107-8.