

## CASE REPORT

# Tubal Ectopic Gestation Associated with Genital Schistosomiasis: A Case Report

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## Abstract

Schistosoma are trematode blood flukes of the family Schistosomidae affecting the urinary and gastro-intestinal tracts. Riverine areas of the world such as in Africa, Eastern Mediterranean, Central American and East Asia are endemic for the disease, with *S. haematobium* accounting for most of the symptomatic genital infection. A case of a 25-year-old woman with 8 weeks amenorrhoea, lower abdominal pain and per vaginal bleeding was managed for ruptured ectopic pregnancy and discovered to have tubal infection by *Schistosoma* on histological examination is presented. *Afr J Reprod Health* 2014; 18[2]: 144-146).

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**Keywords:** Ectopic Gestation, Genital Schistosomiasis

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## Résumé

Les schistosomes sont des douves sanguines de la famille Schistosomiase affectent les voies urinaires et gastro-intestinales. Les zones riveraines du monde comme l'Afrique, la Méditerranée Orientale, l'Amérique Centrale et l'Asie de l'Est sont endémiques de la maladie, la *S. hématobie* étant responsable de la plupart des infections génitales symptomatiques. Un cas d'une femme de 25 ans qui présentaient des 8 semaines d'aménorrhée, des douleurs abdominales basses et par des saignements vaginaux a été géré pour la grossesse extra-utérine rompue et l'examen histologique a découvert une infection des trompes par le schistosome. *Afr J Reprod Health* 2014; 18[2]: 144-146).

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**Mots clés:** gestation extra-utérine, schistosomiase génitale

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## Introduction

Schistosomiasis of the female reproductive tract has been observed in endemic areas<sup>1-6</sup>. The species *Schistosoma haematobium* (*S. haematobium*) prefer the genitourinary tract, with the adult worms residing in the pelvic and vesical venous plexuses where they lay ova that are transported in a retrograde manner to the distal organs (urinary bladder, ureters, genital tract)<sup>7</sup>. These ova are also shed in urine and form a basis for identification via microscopy of such a sample. The World Health Organisation recommends that *S. haematobium* infestation should be referred to as urogenital schistosomiasis instead of urinary schistosomiasis<sup>1</sup>.

While the adult worms are mostly asymptomatic, the ova elicit a Type IV hypersensitivity reaction that manifests morphologically as circum-oval granulomata with the attendant fibrosis.

Symptoms attributable to the female genital tract include: dyspareunia, bloody cervical discharge, dysmenorrhea, chronic pelvic pain and pelvic pseudotumour. Infertility may also result from tubal occlusion, secondary to the fibrosis<sup>2-6</sup>.

Female reproductive tract infection/parasitisation with *Schistosoma* species has been documented in countries where the parasite is endemic. Genital involvement by *S. haematobium* is more frequent because adult worms reside in pelvic and vesical venous plexuses, depositing ova. In many cases, it is asymptomatic. Tubal involvement can produce fibrotic scars, tubal occlusion, and infertility<sup>3</sup>.

## Case Report

We report the case of a 25-year old G4p1+2, A1woman who presented at the Gynaecologic Emergency Unit of the Abubakar Tafawa Balewa University Teaching Hospital (ATBUTH) Bauchi, with secondary amenorrhoea of 8 weeks, pelvic

*African Journal of Reproductive Health* June 2014; 18(2): 144

pain and vaginal bleeding of 1 day duration. She had dizziness but no fainting attacks; there was no history suggestive of haematuria in the past and her source of water was open well until recently when a bore-hole was done for the community. She had a urine pregnancy test 3 weeks prior to presentation which was positive. Her first pregnancy was 5 years prior to presentation. She had voluntary termination of pregnancy by dilatation and curettage at 10 weeks gestation. She had a spontaneous vaginal delivery at term in her second pregnancy. Her third pregnancy ended in spontaneous abortion at 13 weeks of gestation. There was no history of post abortal complication.

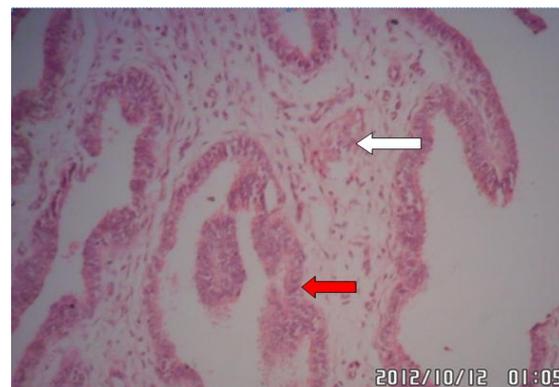
On examination, she was a young woman, afebrile (temp 36.8<sup>o</sup> C) but pale. She had generalized abdominal tenderness; other abdominal organs were not delineated due to undue tenderness. A pelvic examination was done which revealed a closed cervix, slightly bulky uterus and a palpable left adnexal mass that could not be ascertained due to tenderness. A pelvic ultrasound showed a left adnexal mass and free peritoneal fluid collection. She had Laparotomy and left salpingectomy with the following intra-operative findings; Haemoperitoneum of 1litre, bilaterally normal ovaries, healthy right tube and a ruptured left fimbrial ectopic pregnancy with some product of conception extruded into the pouch of Douglas. The postoperative course was normal, and the patient was discharged after five days.

The gross specimen submitted for histology at the Histopathology Department, ATBUTH, was a tan brown 8x5x3cm dilated distorted Salpingectomy specimen with a smooth to irregular surface and effaced fimbrial end (Figure 1). Cut sections showed a markedly dilated lumen containing spongy material with mural attenuation. Histological examination of Hematoxylin and Eosin stained sections of formaldehyde fixed paraffin embedded blocks from the specimen demonstrated tubal tissue with luminal dilatation by variable sized chorionic villi. There is mural expansion by numerous variable sized granulomata some with central viable ova morphologically consistent with *Schistosoma* (Figure 2 and 3). She was treated with Praziquantil and had follow up visits with urine and stool screening for schistosoma ova. She was

counseled on her condition and the need to present early whenever she missed her menstruation. She has since been well.



**Figure 1:** Gross appearance of the Left Salpingectomy specimen with significant destruction of the fimbrial end.



**Figure 2:** showing an expanded tubal mucosal fold with a *Schistosoma* ovum (white arrow) and a pseudo-gland (red arrow). Hematoxylin and Eosin X 200 magnification.



**Figure 3:** Section showing tubal mural expansion by oval granulomata with sprinkling by

lymphoplasma cells. Hematoxylin and Eosin X 200 magnification

## Discussion

Schistosomiasis is a rare cause of tubal disease that could result in ectopic pregnancy, infection occurs when the *Schistosoma* larvae (cercariae) penetrate the skin following their release by fresh water snails; after maturing into adult forms in the lungs; the latter get carried by the blood to the splanchnic or vesical veins. *Schistosoma mansoni* is known to affect the intestine; though there has been a report of *S. mansoni* identified in the fallopian tube in a hysterectomy sample<sup>7</sup>. *S. haematobium* infection of the urinary tract and *S. japonicum* has been consistently described as a cause of female genital tract lesions and these manifests as abortions, preterm deliveries or still births. Presentation of schistosomiasis in the form of a ruptured tubal pregnancy in a previously asymptomatic patient as we have described above is unusual. The finding of ova and circum-oval granulomata in this case were incidental. This mode of presentation was similar to the cases reported from Ife two decades ago and that of Kano all in Nigeria<sup>2,4</sup>.

It follows, therefore, that when evaluating a patient who presents with symptoms of tubal pathology, especially from endemic regions, schistosomiasis should be considered in the differential diagnoses and appropriate investigations should be done as part of the peri-operative work-up, the relevance of screening on stool, urine, and vaginal secretions in those areas where schistosomiasis is endemic is very important. Similarly, the need for histopathological evaluation of surgical biopsies cannot be over emphasized as illustrated by this case. This patient would have missed the opportunity for definitive treatment.

Therapy with praziquantil will treat the infection, although reversal of the attending fibrosis and its sequels cannot be assured. This underscores the need for long term follow up of such patients, especially if they are desirous of further pregnancies.

## Contribution of Authors

MB Aminu and LM Dattijo identified, operated on the case and then wrote the clinical aspects of the manuscript while K Abdullahi prepared the specimen and wrote the histopathological component of the paper. MB Aminu did the literature search on the condition. All contributed to the revision of the final draft to suit journal publication.

## References

1. Kjetland EF, Leutscher P D C, Ndhlovu PD. A review of female genital schistosomiasis. Trends in Parasitology, 2012; 28(2):58-65.
2. Okonofua FE, Ojo OS, Odunsi OA, Odesanmi WO. Ectopic pregnancy associated with tubal schistosomiasis in a Nigerian woman. Int J obstet Gynecol, 1990; 32(3):281-284.
3. Ogunniyi SO, Nganwuchu AM, Adenle MA, DareFO. Pregnancy following infertility due to pelvic schistosomiasis--a case report. West Afr J Med, 1994; 13(2):132-133.
4. Mohammed A Z, Uzoho C C, Galadanci H S, Ashimi A. Ruptured tubal gestation: an unusual presentation of *Schistosoma haematobium* infection of the fallopian tube. Trop Doct, 2004; 34(1):48-49.
5. Bahrami S, Alatassi H, Slone SP, O'Connor DM. Tubal gestation and schistosomiasis: a case report. J Reprod Med. 2006; 51(7):595-598.
6. Orlandini LF, Munhoz AS, Nogaroto M, Galão EA, Bagarelli LB, Oliani AH. Tubal schistosomiasis in Brazilian women: a case report. Prague Med Report ,2009, 110(3):250-254.
7. Faria CA, Conceicao J C J, Valadares TF, Rodriues B, Cameiro L. *Schistosoma mansoni*: a rare cause of tubal infection. Braz J Infect Dis, 2010, 14 (3), 288-290.