

Incidental Schistosomiasis In A Dermoid Cyst Of The Ovary: A Case Report

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Citation

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Abstract

Schistosomial infestation of the female genital system is uncommon and involvement of ovaries is even rarer. Incidental schistosomiasis of various ovarian lesions have been cited in the literature. A case of schistosomiasis of the dermoid cyst of the ovary is presented to highlight the rare occurrence of this lesion.

INTRODUCTION

The Schistosomes are the most important of the trematodes that infect humans, not only because of the morbidity and the mortality they produce, but also because of the sheer number of infected people worldwide¹. The *Schistosoma hematobium* species colonizes the venules of the pelvic venous plexuses draining the Urinary bladder, less commonly the female genital system, and the veins of the lower sigmoid and rectum².

Schistosomiasis of the female genital tract is common in some areas of Africa³. Female

Genital schistosomiasis is a neglected disease manifestation of infection. *Schistosoma* may affect cervix, vagina, vulva, fallopian tubes and ovaries. Infertility, ectopic pregnancies, abortion, ovarian cysts and cervicitis are described sequelae of infection. The presence of *Schistosoma* eggs in a teratoma of the ovary is a very rare occurrence. Only 4 such cases appear to have been documented in the world literature^{4,5,6,7}. We present here a case of incidental finding of *Schistosoma hematobium* eggs in a benign cystic teratoma of the ovary because of its rarity.

CASE REPORT

A 28 year old female presented with dull aching pain in the left lower abdomen of two months duration. The pain was not related with change in posture or menstruation. The patient was married with two children. Physical examination did not reveal any significant findings but for a suspicious mass in the left iliac fossa. There were no significant obstetric or gynecological symptoms or findings attributable

to this mass. Ultrasound examination suggested a cystic mass of the left ovary measuring about 7X4 cms. Right ovary was normal. A provisional diagnosis of dermoid cyst of the ovary was made. The ovarian mass was excised and sent for histopathological examination.

GROSS APPEARANCE

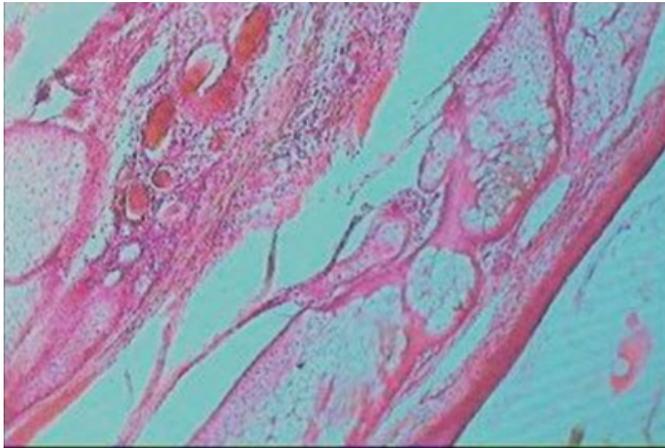
The mass received was well circumscribed, smooth, grayish brown, cystic and measured 7X4X3cms. On opening, the mass showed unilocular cystic appearance containing grayish putty like material entangled with plenty of hair. The inner surface of the cyst wall was rough, grayish brown with hair protruding at places. In one area there was a small firm to hard elevated protrusion into the cyst cavity which measured 0.8X0.5 cms.

MICROSCOPIC APPEARANCE

Multiple sections taken from the cyst wall and the firm to hard area revealed the characteristic features consistent with dermoid cyst of the ovary (fig.1).

Figure 1

Figure 1: Low power view showing the predominant ectodermal element with hair, epidermis Sebaceous glands,dermis and subcutaneous fat. H & E 4 X



In addition to these findings there were *S. Hematobium* eggs scattered through out and seen exclusively in the dermis and the subcutaneous fat. Some of these eggs were calcified and foci of moderate inflammatory infiltrate was seen through out(fig.2,3). Adult parasite was not identified.

Figure 2

Figure 2: High power view showing *Schistosoma hematobium* eggs and the inflammatory infiltrate around them. H & E 10 X

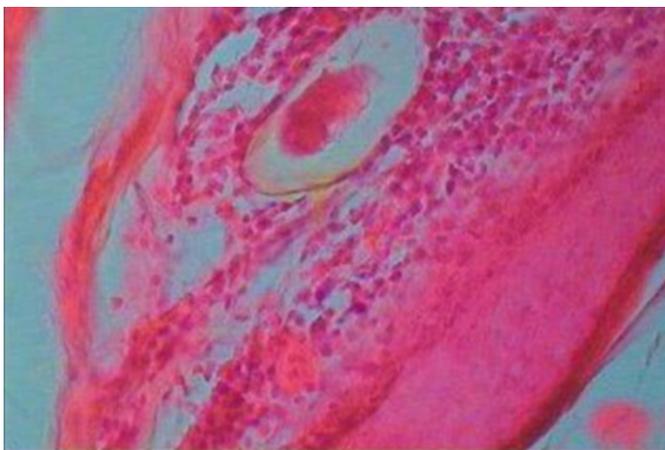
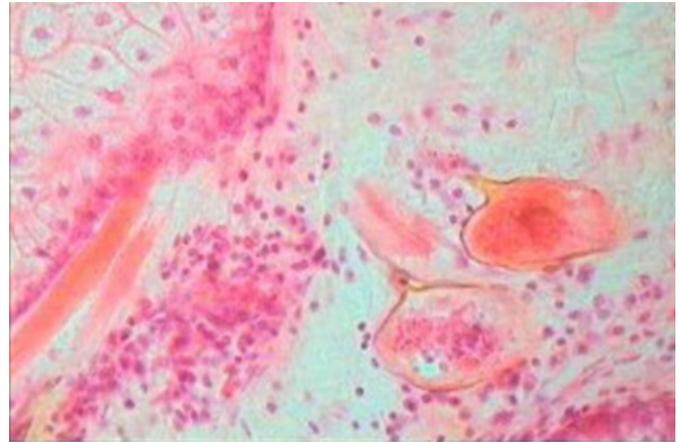


Figure 3

Figure 3: High power view showing *Schistosoma hematobium* egg surrounded by inflammatory infiltrate. H & E 40 X



DISCUSSION

Schistosomiasis is a helmenthic parasitic infection afflicting about 250 million people around the world ⁸. Female genital schistosomiasis was described for the first time in a young Egyptian woman more than a century ago⁹. Female genital schistosomiasis is a neglected disease manifestation of Schistosomiasis. According to postmortem and histopathological examination studies the frequency of female genital schistosomiasis in the upper reproductive tract ranges from 2 percent to 83 percent¹⁰. In the lower reproductive tract the prevalence is 33 percent to 75 percent¹¹. In one study conducted over a period of 12 years showed the varied distribution of genital Schistosomiasis as follows: Ovary 21%,Fallopian tube 16%,Uterine cervix 42%,Vulva,Vagina and Clitoris 21% ¹².

Various pathological processes of the ovary are seen to be associated with Schistosomiasis, such as oopheritis, ovarian cyst, hilar obstruction and para ovarian adhesions and granulomatous lesions. These lesions can be responsible for anovulation leading to infertility¹³.In our study the patient presented with the mass without any finding suggestive of the pathological processes mentioned above.

There are only four reports of *Schistosoma hematobium* eggs being found in a teratoma of the Ovary ^{4, 5, 6, 7}. In all these cases the finding of *Schistosoma* eggs was considered as incidental finding than as causative finding. There is no evidence so far to say that schistosomiasis can be a pathogenic factor in the development of teratoma of the ovary. In the present study also the finding of *Schistosoma* eggs appear to be an incidental finding and the patient did

not have any indication of schistosoma infection in other locations of the genital tract.

Recently female genital schistosomiasis has been described wherein there was no involvement of Urinary bladder and Ureters. In this community based study from Africa 30-75% of the women infected with *Schistosoma hematobium* had egg associated lesions in the lower genital tract¹⁴.

Genital Schistosomiasis is nearly always caused by *S. Hematobium* and usually is a complication of Schistosomiasis of the Urinary bladder and Intestine. In the present study also the eggs found in dermoid cyst of the ovary were *Schistosoma hematobium* eggs.

CONCLUSION

Diagnosis of genital schistosomiasis is essential as it often and easily goes unnoticed or undetected. Genital Schistosomiasis adds to the disease burden of women of all age groups. Incidental findings like in the present one should alert the physician and the community health worker to conduct regular reproductive health checkup so that no case of Schistosomiasis should go undetected and thus untreated.

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