Ovarian Hydatid Cyst: A Rare Presentation with Recurrent Miscarriage

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ABSTRACT

Recurrent miscarriage is a frequent presentation among females of reproductive age. Ovarian hydatid cyst is a rare entity. We present a case of an ovarian hydatid cyst presenting with a history of recurrent miscarriage. Transvaginal ultrasound showed a well-defined, oval, complex solitary cystic lesion in the left adnexa with internal dense low-level echoes and echogenic component. Intraoperatively, a cystic mass in the ovary and adherent to the omentum, peritoneum, and uterus was observed. When managed surgically followed by anthelminthic drugs, the patient completely recovered. Histopathological examination of the specimen reported the diagnosis of a hydatid cyst. Ovarian hydatid cyst may be a useful differential in managing patients with early pregnancy loss with diagnostic uncertainty. Awareness in endemic areas may also help in timely diagnosis and management to prevent complications due to rupture.

Key Words: *Ovarian cyst, Hydatid cyst, Echinococcosis.*

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INTRODUCTION

Hydatid disease is a parasitic infection caused by the Echinococcus granulosus. Humans are the accidental dead-end hosts, which get infected by swallowing the eggs of infected host excreta.[1] Liver (60-75%) is the most common organ involved followed by the lungs (15-25%).[2] However, it can involve any part of the human body. Cases have been reported involving extraocular muscles, heart, and pelvic organs.[3] Around 80% of the pelvic involvement is seen in the female genital tract and the incidence in the ovaries is found to be 0.2-2.5%.[4] Clinical presentations involving the lower abdomen range from pain abdomen to irregular vaginal bleeding. Here, we present a case of an ovarian hydatid cyst presenting with a history of recurrent miscarriage.[5,6]

CASE REPORT

A 32-year female presented to the gynaecology outpatient department for the workup of recurrent miscarriages. She had a history of 3 live births followed by recurrent 5 early pregnancy losses. She did not have any history of pain abdomen, irregular menstrual cycles, fever, or any pressure symptoms in the lower abdomen.

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On examination, the general and systemic examination was unremarkable except for a surgical scar of the caesarean section. Per vaginal examination was suggestive of a mass in the left fornix. All routine investigations were normal. Serum CA-125 levels were slightly raised (57 U/mL). Ultrasound of the upper abdomen and chest imaging did not reveal any significant abnormality. A transvaginal ultrasound showed a well-defined, oval, complex, and solitary cystic lesion measuring approximately 9×7.5 cm in the left adnexa with internal dense low-level echoes and echogenic component (Figure 1).

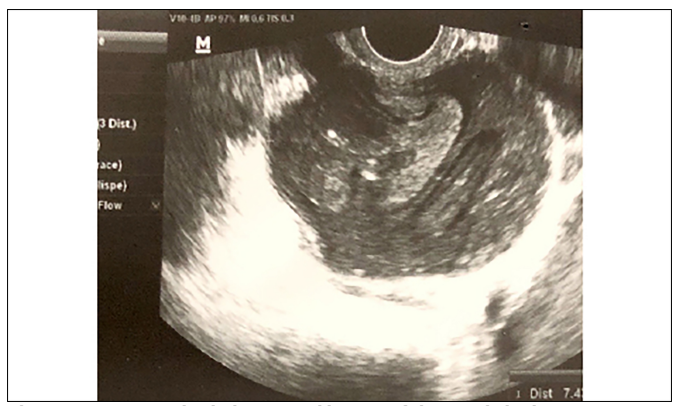

Figure 1: Transvaginal ultrasound image of the cystic lesion.

A decision to operate with the suspicion of adnexal mass was made. A cystic mass in the ovary adherent to the omentum, peritoneum, and uterus was observed intraoperatively. Dissection was done and the ovary was released followed by the cystectomy. No other cyst was found in the pelvic area. Macroscopic examination showed a greyish-white mass of approximately 9×8 cm (Figure 2). The cyst contained numerous daughter cysts and thick pinkish-yellow fluid (Figure 3). The peritoneal toilet was done with hypertonic saline. A histopathological examination of

the specimen confirmed the diagnosis of a hydatid cyst. The patient was put on albendazole 400 mg twice daily for three months. Successful conception was achieved after 1 year without any antenatal complications.

Figure 2: A greyish-white membranous lesion was removed during the procedure.

Figure 3: The yellow-pink fluid of the cyst.

DISCUSSION

Hydatid cyst is a parasitic infection and can involve any organ in the body. Pelvic organ involvement is very rare and most of the cases are diagnosed intraoperatively. Many times, ovarian involvement is seen as a secondary phenomenon preceded by lesions in other parts of the body.[2] However, primary ovarian involvement has also been reported rarely.[5] In the ovary, it may mimic ovarian neoplasm or a cyst and can present with different symptomatology.[6] Most of the time, ovarian hydatid disease is asymptomatic for a long duration due to its natural slow evolution. However, it becomes symptomatic when there is a superimposed infection, rupture of the cyst, or as a result of compression of the organs located near the cyst.[7]

The clinical picture varies from organ to organ and is non-specific. It ranges from mild pain (most common) to features of infection in patients with infected cysts. Ovarian hydatid disease often presents with vague abdominal or pelvic pain, nausea, dysmenorrhea, amenorrhea, and other symptoms related to compression effects. It can also present with symptoms like pyrexia, anorexia, and abdominal distension.[8] Although very rare, rupture of the cyst may spread out the daughter cyst leading to anaphylaxis in certain individuals.[9] However, in the present case, the patient presented with history of recurrent miscarriages. Ovarian hydatid cysts can affect the maturation and secretion of eggs leading to a disturbed female reproductive cycle. Massive cysts (>10 cm) have been reported in the literature to be linked with such complications.[10] In cases where conception occurs, future risks are still there due to compression effects leading to miscarriage and early fetal loss which was also seen in the present case.

Hydatid cysts in the pelvis of a woman may simulate malignancy or polycystic ovary and its presence in the broad ligament may simulate a pedunculated fibroid.

It can be diagnosed radiologically, supported by serological tests. The abdominal ultrasound is an easily available screening and diagnostic modality. Histopathological diagnosis is the confirmatory test. Treatment is started with anti-helminthic drugs before the surgery to decrease the chances of recurrence. It also helps in softening the cyst wall.

Hydatid cysts should be included in the differential diagnosis of the pelvic cystic lesions. It has to be considered even in cases with normal serological markers of hydatidosis, such as eosinophilia, as was observed in the present case. The diagnosis of hydatid cysts does not exclude synchronous ovarian tumours.

These rare cases of ovarian hydatid cysts necessitate the implementation of measures for screening hydatid disease in endemic areas. Increasing awareness in endemic areas may also help in timely diagnosis and management to prevent infections or complications due to rupture. Primary ovarian hydatid cyst is a rare entity with atypical presentation in females of reproductive age and may lead to miscarriage.

PATIENT'S CONSENT:

An informed consent was obtained from the patient to publish this case.

COMPETING INTEREST:

The authors declared no conflict of interest.

AUTHORS' CONTRIBUTION:

RF: Final approval and drafting.
SW: Final approval and acquisition of case.
AN: Acquisition and drafting.
MS: Acquisition and critical review.
All authors approved the final version of the manuscript to be published.

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