



OVARIAN HYDATID CYST- A RARE ENTITY: A CASE REPORT

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ABSTRACT Hydatid disease is a zoonosis caused by the transmission of the larval stage of *Echinococcus granulosus* (dog tapeworm) either by consuming contaminated food and water or due to hand to mouth transmission from infested animals or partially cooked meat. Humans are the accidental host. Hydatid cyst of ovary is an extremely rare presentation accounting for 0.2-1% of all cases. A 47-year-old woman presented to the surgery department of Owaisi Group of Hospitals (PEH) with a chief complaint of abdominal pain for 1 week. USG examination revealed bilateral simple ovarian cysts and CT scan findings showed bilateral complex ovarian cysts. Routine investigations were normal. Surgery was performed for suspected ovarian cyst. The cysts were extracted and sent for HPE which confirmed the diagnosis of hydatid ovarian cyst. The incidence of hydatid cyst in the female reproductive system is less than 0.5% of all cases. The clinician must have a high index of suspicion whenever cystic lesions of pelvis are found as any spillage while operating may lead to anaphylactic shock and recurrence.

KEYWORDS : hydatid cyst, ovarian cyst, *Echinococcus granulosus*

INTRODUCTION

Echinococcosis of the ovary is a rare condition with incidence ranging from 0.2-1%.¹ Hydatid cyst commonly occurs in the liver (63%) with less frequent sites being the lung (25%), muscle (5%) and bone (5%), less frequently found in the kidney, brain and pelvic organs.² The clinical presentation depends on the site of involvement and the symptoms are largely non-specific. The condition presents a clinical dilemma in cases of ovarian cyst/ cystic tumors of the ovary.³

CASE STUDY

A 47-year-old woman presented to the surgery dept of Owaisi Group of Hospitals (PEH) with a chief complaint of abdominal pain for 1 week. USG examination revealed a simple ovarian cyst and CT scan of abdomen showed a hydatid cyst in segment II of the left lobe of the liver and bilateral ovarian enlargement with a large to hypodense cystic lesion- likely complex ovarian cyst (Figs. 1 and 2).

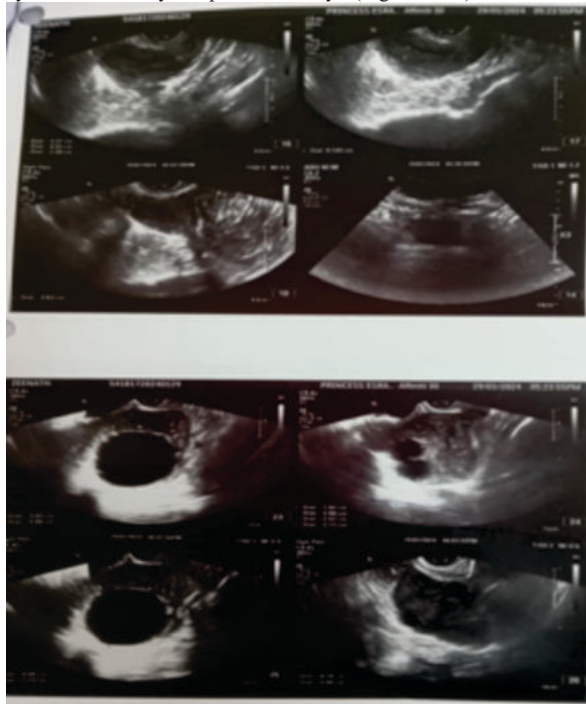


Figure 1: A USG scan of abdomen showing cystic lesion bilateral ovaries.



Figure 2: A CT scan (coronal view) of abdomen showing cystic lesion of bilateral ovaries

Routine investigations were normal. Surgery was performed for hydatid cyst of liver and complex ovarian cyst (CT Scan). Pfannenstiel incision was given and peritoneum reached, saline packing done. Right and left fallopian tubes appeared normal. Bilateral ovarian cyst was identified. Excision was done in toto without opening cyst and the specimen was sent for HPE.

The Pathology Dept of OGH received cystic masses with larger one measuring 10x8x8 cm. Cut section- uniloculated with thick mucoid material with laminated appearance (Fig. 3).

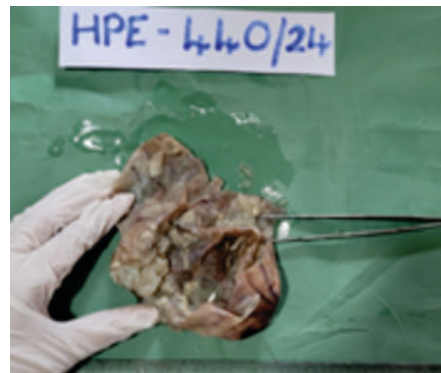
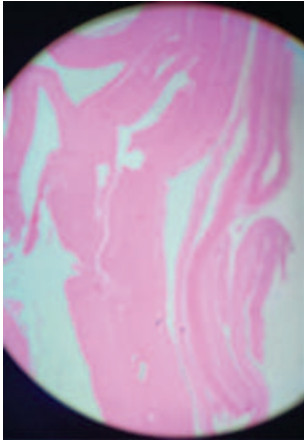


Figure 3: Cut surface of gross picture of hydatid cyst

Microscopically the cyst showed characteristic features of hydatid cyst with lamellated membranes. There was a collection of lymphocytes and plasma cells and a thick strip of ovarian cortex at the periphery (Figs. 4, 5 and 6).



Figures 4: H and E stained sections showing clear, hyaline lamellated membranes of hydatid cyst, 10x



Figure 5: H and E stained sections showing lamellated membranes with inflammatory infiltration, 10x

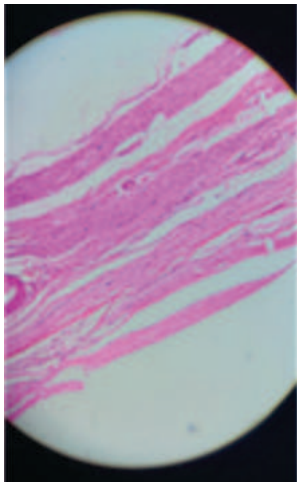


Figure 6: H and E stained sections showing thick strip of ovarian cortex at the periphery, 40x

DISCUSSION

Hydatid disease is prevalent in areas where livestock is raised in association with dogs. It is found in Australia, Argentina, eastern Europe and in the Mediterranean region. The incidence of hydatid disease in India is under 200/1lakh population.⁴ The most commonly involved organs include liver and lungs.⁵ In certain cases, the parasitic embryo escapes pulmonary circulation and enters the systemic circulation. In the female reproductive system, the common sites

include pouch of Douglas and Uterine cavity.^{6,7} Early diagnosis may be possible by radiological imaging and laboratory tests.^{2,6,7} Histologically, hydatid cyst has three layers- peri cyst, germinal layer and lamellated membrane.⁸ A thick peri cyst is present in liver and spleen, but it is extremely thin in peritoneal hydatid cyst. USG is a cost-effective imaging modality but CT is still the preferred investigation along with serological tests which include screening tests such as Enzyme Immunoassay, Indirect Hemagglutinin and confirmatory assays such as Immunoblot/ Gel diffusion. Sensitivity for these tests varies from 60-90%.⁹ To diagnose this condition, one must have a high index of suspicion as it is important to differentiate between benign and malignant ovarian cystic lesions.

CONCLUSION

The incidence of hydatid cyst in the female genital system is very low constituting less than 0.5% of all hydatid cysts.² Clinician must have a high index of suspicion while dealing with the cystic lesions of pelvic region as the spillage from the cyst while operating may lead to anaphylactic shock and recurrence.¹⁰

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