Case Report

Large hydatid cyst of ovary

Farzaneh Mohammadi Zia[1], Seyed Jaber Mousavi[2]

ABSTRACT

Human Hydatid cyst is a wide spread disease. It's an endemic disease in Iran. It's caused by Echinococcus granulosus. Hydatid cyst although known to occur in most organs and body areas, is extremely rare in the female reproductive organs. This is a case report of ovarian Hydatid cyst in a 42-year-old woman. She presented with feeling of enlargement of abdomen and abdominal pain. On physical examination, a large mass in lower abdomen palpated. On imaging study, ultrasonography reported a large heterogeneous multicystic mass measuring 155*97 mm in pelvic cavity and hypo gastric area. The CT-scan with IV contrast reported a huge cystic lesion, containing multiple septi in pelvic cavity that could be due to ovarian lesion. After surgical procedure, histopathological examination showed typical laminated & germinative layers with hexagonal scolecies of Hydatid cyst.

Since the common sites of hydaid cyst are liver and lung and the imaging studies are highly diagnostic for Hydatid cysts, this illustrated case is interesting for uncommon site, not suggested by imaging studies and with clinical (surgical) impression of malignant ovarian tumor.

KEY WORDS: Hydatid Disease, Ovarian Hydatid.

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INTRODUCTION

Hydatid disease is a wide spread disease. It's an endemic disease in Iran.[1] It's caused by the parasitic tapeworm Echinococcus granulosus. *E. granulosus* is a 5-mm long worm, with a lifespan of 5-20 mo within the jejunum of dogs. Dog is the definitive host harboring the adult worms. Eggs of Echinococcus present in dog's feces when ingested by man leads to the development of larval forms in various organs producing Hydatid cysts – thus the man acts as an intermediate host. Echinococcal cysts are mostly found in the liver (60%-70% of cases), followed by the lungs (10%-25%), spleen, ovaries, kidneys, brain, bones and heart, but rarely elsewhere in the body.[2] Hydatid disease in extra hepatic locations usually remains asymptomatic unless the cyst grows and produces symptoms due to pressure, rupture to the pleural or peritoneal cavity, secondary infection, or an allergic reaction.[3] The etiology and pathogenesis of this affection may give rise to many different clinical signs, problems with pre-operative diagnosis. We report the rare case of a 42-year-old woman with a large Hydatid cyst in her left ovary.

CASE REPORT

The illustrated case is a 42 year - old female who presented with feeling of enlargement of abdomen and abdominal pain from two months earlier. There was no nausea, vomiting and loss of appetite. There were no difficulties in defecation and in urination. On physical examination, a large mass in lower abdomen was palpated and on gynecological examination the height of uterus and left adenex were not

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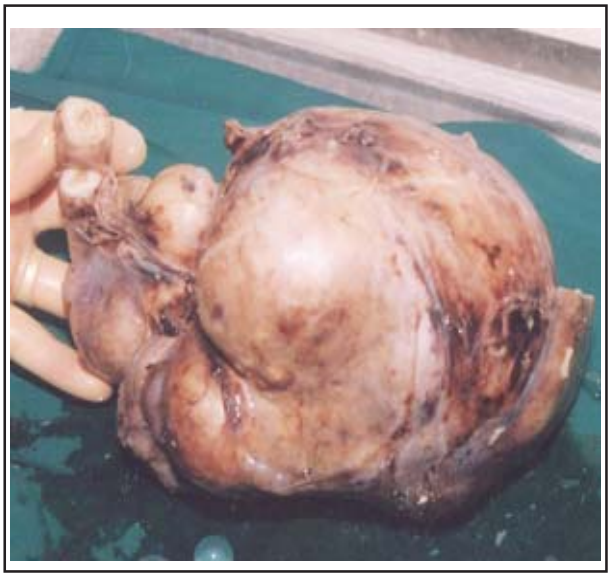

Fig-1: Gross appearance of the cyst from the left ovary measuring 190*180*80 mm and weigh 1310 gr.

determined due to the presence of the large mass in this region. The right adenex was free.

On imaging study, ultrasonography reported a large heterogeneous multicystic mass measuring 155*97 mm in pelvic cavity and hypo gastric area with suggestion of ovary lesion. The liver and biliary systems were normal. The CT-scan with IV contrast reported a huge cystic lesion, containing multiple septi in pelvic cavity that could be due to ovarian lesion.

On laparotomy surgery, TAH+BSO and resection of left ovarian mass with two lymph nodes of right and left parailiacs and a peritoneal seeding on bladder sent to Pathology department.

The mass consists of a large bi-lobed measuring 190*180*80 mm with weight 1310 grams (Fig-1). The fallopian tube measuring 5 cm in length & 1.5 cm in width was extended on small lobe of this cyst. Cut surface showed many small cavities filled with clear fragile white vesicles (Fig-2). Histopathological examination showed typical laminated & germinative layers with hexagonal scolecies of Hydatid cyst (Fig-3). The cyst wall had an outer laminated hyaline membrane and inner germinal layer containing nuclei in an eosionophilic protoplasmic mass. There was a significant collection of eosinophils, plasma cells, macrophages and few neutrophils around the endocyst.

It is important to follow up these cases after operation in order to sport recurrences. This patient is well-being now and no other sites of body reveal problems.

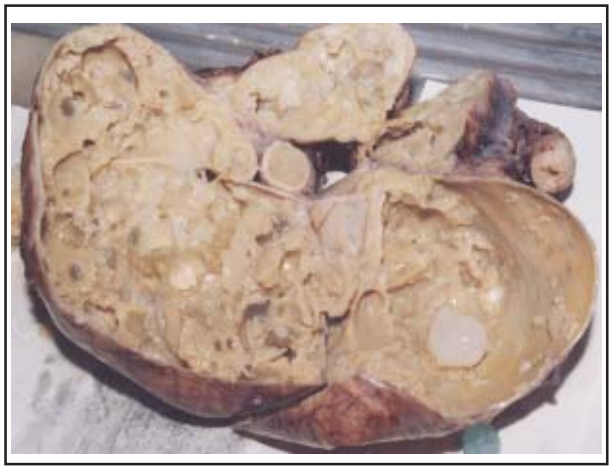

Fig-2: Cut surface showed Multilocular cavities filled with clear fragile white vesicles.

DISCUSSION

Human hydatid disease is caused by Echinococcus granulosus. Its distribution is worldwide. When eggs are ingested by an intermediate host, the embryos escape, penetrate the intestinal mucosa, enter the portal circulation, and are then trapped in

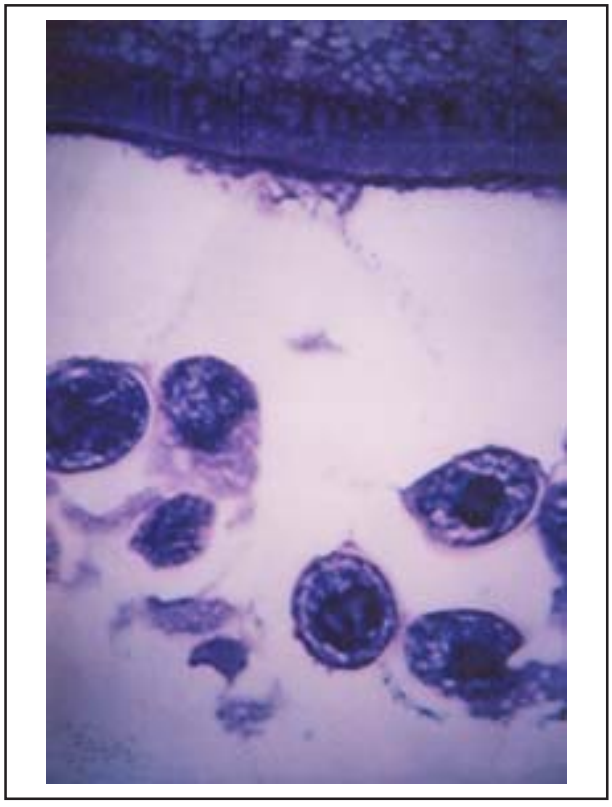

Fig-3: Histopathological examination showed typical laminated & germinative layers with hexagonal scolecies of Hydatid cyst.

the liver.[4] Larvae develop into fluid-filled unilocular hydatid cysts that consist of an external membrane and an inner germinal layer. Daughter cysts originate from the inner layer.[4,5] Slowly enlarging echinococcal cysts generally remain asymptomatic.

Due to entrapment of the parasite embryo by the portal or pulmonary circulation, the liver and the lungs are typical locations of the cysts. The cyst of E.Granulosus is always unilocular having scolices.[6,7] Sterile multilocular cysts or alveolar Hydatid disease is caused by E.Multilocularis.[6-9] Multilocular cysts are also produced by species like E.Vogeli and E.Oligarthus but unlike E.Multilocularis they have scolices and cause multicystic lesions.[10]

Rarely a small number escape the hepatic filter, enter the systemic circulation, and are scattered to other organs. Primary involvement of pelvic organs is very rare. The incidence of Hydatid cyst formation in the female reproductive system is much less 0.5% of all Hydatid cysts.[11,12]

Since the common sites of hydaid cyst are liver, lung… and the imaging studies are highly diagnostic for Hydatid cysts; this illustrated case is interesting for uncommon site, not suggested by imaging studies and with clinical (surgical) impression of malignant ovarian tumor.

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