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PRIMARY OVARIAN HYDATID CYST – A CASE REPORT

Pathology

Kulwant Singh	Associate Professor, Department of Pathology, B.P.S. Government Medical College For Women, Khanpur Kalan, Sonipat Haryana.
Parveen Rana Kundu*	Associate Professor, Department of Pathology, B.P.S. Government Medical College For Women, Khanpur Kalan, Sonipat Haryana. *Corresponding Author
Amrita Kulhria	Department of Pathology, B.P.S. Government Medical College For Women, Khanpur Kalan, Sonipat Haryana.
Swaran Kaur	Professor & Head, Department of Pathology, B.P.S. Government Medical College For Women, Khanpur Kalan, Sonipat Haryana.
Anjali Sindhu	Department of Pathology, B.P.S. Government Medical College For Women, Khanpur Kalan, Sonipat Haryana.

ABSTRACT

The causative agent for hydatid disease is Echinococcus granulosus. The disease can affect any of the organs of body but liver and lungs are most commonly involved. Pelvic hydatid disease is rare. So we are reporting case of hydatid disease of ovary and fallopian tube in 19 year old female, who presented with five months history of dull pain in right lower abdomen and distension.

KEYWORDS

Hydatid, Cyst, Ovary

INTRODUCTION

Hydatid disease is a parasitic infection caused by tapeworm, Echinococcus, most commonly Echinococcus granulosus. The disease is endemic in sheep and cattle grazing countries like India, Australia, Middle East, Africa South America and Turkey.[1] The dog is the definitive host, harbouring the adult tapeworms and the sheep, pig, cattle, goat and man are intermediate hosts, harbouring larval stage.[2] Human beings get accidently infected by eggs, either by consuming contaminated vegetables or direct contact with pet dogs.[3] The larva penetrates through the mucosa of intestine and diffuses into the blood and lymphatic circulation. They are transported by the circulation to the organs, mostly to the liver (63%) and lungs (25%), where they grow and produce cysts. The muscles (5%), bones (3%), kidneys (2%), brain (1%), and spleen (1%) are the other sites involved by the disease.[4] It is unusual to find hydatid cyst in the pelvis, especially as a primary localization. The ovary is the most commonly affected organ in this location; accounting 80% of cases.[5] We report a case of large hydatid cyst in right ovary mimicking a multicystic ovarian tumor sonographically and cyst with same morphology in right fallopian tube.

CASE REPORT

A 19 year old female presented to obstetrics and gynaecology opd with five month history of mild dull aching pain in right lower abdomen and distension. On per abdominal examination, a firm, non tender mass of size 12x8 cm was observed in right lower side. Ultrasonography (USG) of abdomen and pelvis was advised. On USG, the uterus was normal in size measuring 7.1x3.5x1.6cm, anteverted and there was no area of altered echogenecity in the myometrium. Endometrial thickness was 5mm. A well defined thick walled mutiseptate mass of size 13x13x9.8cm was seen arising from pelvis and extending in right lower abdomen, with solid areas within measuring 4.3x3.2cm. Loculated fluid collection with internal septation noted in right paracolic gutter. Right ovary was not localised. The left adnexa were normal. Other organs were normal with no cysts in liver and lungs except for mild hydronephrosis. Sonographically, the diagnosis of large multiseptate cystic tumor of right ovary likely to be mucinous type, with dilated right fallopian tube was made. Exploratory laparotomy was done and large thick walled, white glistening cystic mass was seen. The cyst was adherent to bilateral fallopian tubes and to the posterior wall of colon and gall bladder. The cyst was removed along with adherent fallopian tubes and left sided ovary.

Grossly received large cystic mass measuring 14x12x10 cm along with adherent bilateral fallopian tubes. The internal surface of cystic mass showed pearly white laminated membranes and multiple daughter cysts. The right fallopian tube was dilated and showed cystic areas. The left sided adnexa was grossly unremarkable. Microsections examined from cystic mass and right fallopian tube revealed laminated acellular hyaline membrane (ectocyst) and germinal layer (endocyst) (Figure 1, 2 and 3). The left sided adnexa did not show any significant pathological change. The diagnosis of primary hydatid disease of ovary and fallopian tube was made.

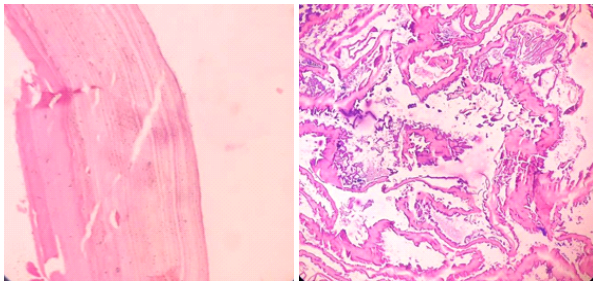

Figure (1 and 2): Microphotograph showing eosinophilic laminated ectocyst (H&E; 10X)

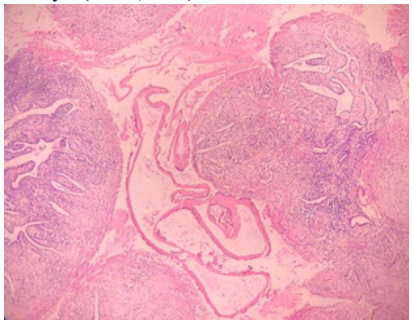

Figure (3): Microphotograph showing ectocyst in lumen of fallopian tube (H&E; 10X)

DISCUSSION

Human hydatid disease was described by Hippocrates more than 2000 years ago. They used the term 'liver filled with water' for the disease.[6] Hydatid cyst affects liver and lungs in majority of cases. They are often part of generalised disease in other organs. Primary Pelvic hydatosis is rare constituting 2% of all abdominal hydatid diseases.[7] Ovary is most commonly involved organ among pelvic hydatosis but primary ovarian hydatosis is unusual. The patient may present with vague

abdominal pain due to irritation, abdominal distension, menstrual irregularities, infertility and pressure symptoms involving the adjacent organs.[8]

The correct diagnosis of ovarian hydatid disease is difficult as symptomolgy is very non specific and imaging studies can simulate imaging findings of either polycystic ovarian disease or an ovarian tumour as it was in our case.[9] The transvaginal scan is an important imaging tool as it recognises cystic aspect of the lesion, shows the characteristic fluctuating membranes of the multilocular cyst. Computed tomography (CT) scan confirms the diagnosis as it reveals daughter cysts and calcifications of the cyst's wall.[10] The treatment of choice is surgery which could be either radical or conservative. Ovarian cystectomy is the gold standard treatment. In some cases, in order to preserve surrounding structures, a partial cystectomy is done**.**

CONCLUSION

Pelvic ovarian hydatid disease can be sometime deceptive to surgeons and radiologists as it can resemble multicystic ovarian tumor or polycystic ovarian disease on clinical and radiological grounds. So, possibility of hydatid disease should be kept in mind and considered while making the differential diagnosis of pelvic cystic masses, particulary if the patient is from endemic areas. Transvaginal scan and CT are the investigations of choice.

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REFERENCES

1. Pedrosa I, Saiz A, Arrazola J, Ferreiros J, Pedrosa CS. Hydatid disease: radiologic and pathologic features and complications. Radiographics 2000; 3: 795-817.
2. Chatterjee KD. Parasitology, protozoology and helminthology. 13th Ed. New Delhi, India: CBS; 2009. Pp.159-65.
3. Polat P, Kantarci M, Alper F, Suma S, Koruyucu MB et al. Hydatid disease head to toe. Radiographics 2003; 23: 475-94.
4. Aksu MF, Budak E, Ince U, Aksu C. Hydatid cyst of the ovary. Arch Gynecol Obstet 1997; 261: 51-53.
5. Diaz-Recasens J, Garcia-Enguidanos A, Munoz I, Sainz de la Cuesta R. Ultrasonographic appearance of an echinococcus ovarian cyst. Obstet Gynecol 1998; 91: 841-42.
6. Katan YB. Intrabiliary rupture of hydatid cysts of liver. Ann R Coll Surg Engl 1977; 59: 108-14
7. Benkaddour YA. Primary pelvic hydatid cyst an unusual cause of cystic adnexal image (mass). Afr J Reprod Health 2011; 15: 165-68.
8. Tsaroucha AK, Polychonidis AC, Lyrantzopoulos N, Pitiakoudis MS, J Karayiannakis A et al. Hydatid disease of the abdomen and other locations. World J Surg. 2005; 29: 1161-65.
9. Gaym A, Abebe D, Degefe DA. Hydatid cyst an unusual cause of ovarian enlargement. Ethiop Med J 2002; 40: 283–91.
10. Cattorini L, Trastulli S, Milani D, Cirocchi R, Giovannelli G et al. Ovarian hydatid cyst: a case report. Int J Surg Case Rep 2011; 2: 100–102.