Hydatid cyst of ovary- a rare entity

Overin hidatik kisti- nadir bir durum

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Abstract

Hydatid disease is a zoonosis caused by the larval stage of Echinococcus granulosus. It is prevalent in areas where livestock is raised in association with dogs. Humans are the accidental intermediate host. Primary peritoneal echinococcosis is a rarely observed clinical condition. We report a case of peritoneal hydatid cyst diagnosed incidentally during an operation performed for suspected ovarian cyst.

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Key words: Hydatid cyst, ovary, echinococcosis

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Özet

Hidatik kist Echinococcus granulosus'un larva evresinin neden olduğu bir zoonozdur. Hayvanların köpeklerle birlikte yetiştirildiği bölgelerde sıktır. İnsanlar rastlantısal ara konaktırlar. Primer peritoneal echinococcosis nadir görülen bir klink durumdur. Burada over kisti şüphesi ile operasyona alınan bir olguda rastlantısal olarak tanı konulan bir peritoneal hidatik kist olgusunu sunuyoruz.

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Anahtar kelimeler: Hidatik kist, over, echinococcosis

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Introduction

Echinococcosis of the ovary is a rare condition. It was found incidentally during laparotomy for an ovarian tumor. Operative and post-operative management of such a case is presented.

Case Report

A 30 yr old patient, P4, presented with amenorrhea of 3 months, intermittent bleeding P/V for 6 weeks and an abdominal mass for 8 weeks without pain in the lower abdomen or significant loss of weight. There was no alteration of bladder or bowel habits. Her past menstrual history was normal. Clinical examination revealed a large smooth surfaced mass (24×20 cm) arising from the pelvis with restricted mobility. There was no evidence of free fluid in the peritoneal cavity. Uterus was not delineated and adnexae could not be palpated on P/V examination. Urine pregnancy test was negative and laboratory investigations revealed mild neutrophilic leucocytosis, normal liver and kidney functions with normal serum CA-125. Ultrasound (USG) of the whole abdomen revealed a huge multiloculated mass occupying the pelvis with internal debris. The ovaries were not visualized. The right ureter was mildly dilated. The liver, spleen and kidneys showed a normal echo pattern. Ultrasound did not detect free fluid within the abdomen.

Exploratory laparotomy was performed and a huge cystic mass (measuring 20 x 30cm approximately) was seen arising from the pelvis (Fig 1). Uterus, left tube and left ovary appeared normal. Right ovary could not be identified separately. The mass was excised and another large cystic mass was seen occupying the pouch of Douglas. After opening the thick walled cyst, multiple cystic masses emerged (Fig 2). The cyst wall was completely dissected out. Subsequently hysterectomy with left salpingo-oophorectomy was performed. Peritoneal lavage was performed and a tube drain was placed in the cul de sac before abdominal closure. Post operative antibiotics and steroids were given and the recovery was uneventful excepting mild haematuria (macroscopic) for 3 days. Post surgery it was revealed that there was no history of contact with dogs. Albendazole (400 mg) was given twice daily for

Figure 1. Encapsulated mass encountered initially during laparotomy and removed intact

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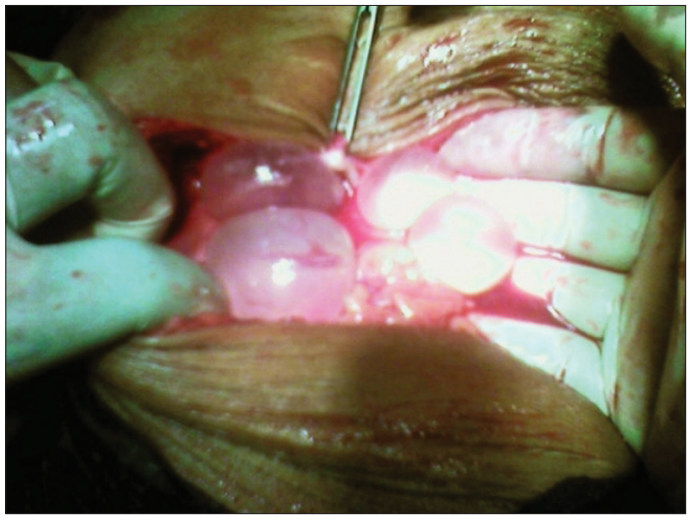

Figure 2. Multiple cystic masses emerging from the cyst in the pouch of Douglas

four weeks. Histopathology confirmed it to be hydatid disease. The patient was followed up thrice in the preceding 6 months. Abdominal USG, computerized tomography (CT) of the thorax and brain and liver function test (LFT) have been performed at each follow up visit. As yet there is no evidence of recurrence.

Discussion

The ovary is a rare primary target organ for hydatid disease. Hydatid disease is prevalent in areas where livestock is raised in association with dogs. It is found mostly in Australia, Argentina, Chile, Africa, eastern Europe, Middle East, New Zealand and Mediterranean region, particularly Lebanon and Greece (1). The organs most commonly involved in hydatid disease are the liver and lungs (2). Most of the cases of ovarian hydatidosis are diagnosed peroperatively. We also performed laparotomy in this case with an idea of encountering a multilocular ovarian cyst. Owing to its multilocular cystic appearance, a hydatid cyst may not be differentiated from ovarian lesions with septal structures such as cystadenoma (3) or cystic ovarian teratoma (with intracystic floating globules). The overall prevalence of peritoneal involvement in cases of abdominal hydatid disease is approximately 13% (1). Hydatid cyst has three layers - pericyst, germinal layer and laminated membrane. A thick pericyst is present in the liver & spleen but it is extremely thin in a peritoneal hydatid cyst. Hydatid cysts expand slowly and asymptomatically, and thus, may be large at presentation (4). Pain is the most common symptom of hydatid disease, but this was absent in our case. Fever supervenes in secondary infection and intraperitoneal rupture causes severe allergic reactions. Jaundice might develop in hepatic hydatid cysts when there is intrabiliary rupture (4). USG is a cost effective imaging modality but when available, CT scan is superior owing to its higher sensitivity (5). Serologic tests are very useful in confirming a diagnosis and usually involve a screening test such as Enzyme immunoassay or Indirect hemagglutination followed, if positive, by a confirmatory assay such as Immunoblot or Gel diffusion. Sensitivity varies from 60-90% depending on the characteristics of the case. False positive reactions may occur with cysticercosis, although disease presentation should prevent confusion (6). Fine needle aspiration cytology (FNAC) may help in establishing the diagnosis of a cystic pelvic mass. FNAC of hydatid cyst was thought to cause severe anaphylactic reactions. However, reported incidence of anaphylactic reactions was very low (7). FNAC was not done in our case as we were suspecting an ovarian tumor. Surgery remains the mainstay of treatment for hydatid disease of the peritoneal cavity (4). Albendazole may be given both preoperatively and postoperatively. It softens the cysts and facilitates removal during the operation and also prevents recurrence after the operation. The dose duration is five days before to one month after the operation. The other alternative is PAIR therapy (puncture, aspiration, injection, re-aspiration) with concomitant chemotherapy. The efficacy of sole medical therapy is limited. Antihelminthics work best when prescribed for small, unilocular, hydatid cysts. Successful treatment for such cases has been reported in up to 40% of cases. In PAIR therapy, ultrasound-guided percutaneous aspiration of cysts is carried out, followed by injection of protoscolicidal substances (such as, 20% sodium chloride solution, 95% ethanol or betadine solution). The solution is left on for a contact period of a minimum of 15 minutes and then re-aspiration of the fluid cyst content is performed. The indications of PAIR therapy are: (1) large, multiple cysts of the liver, spleen, kidney and bones; (2) inoperable cases; and (3) relapses after surgery. The contraindications are lung cysts and communicating cysts (4). Asymptomatic small cysts may be treated with anthelmintics but large and symptomatic cysts should be treated surgically to avoid complications (4). The goals of surgery are to remove all the cysts and to prevent spillage of cyst fluid (4). In extrahepatic hydatids the pericyst is very thin and hence the cyst can be dissected and excised fully along with the pericyst (4). Following surgery, the reported recurrence rate is approximately 2% and survival rate is 95% (4). Postoperative long term follow-up is essential. Early postoperative imaging provides a baseline for long term follow-up.

Conflict of interest
None declared

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