Uterine Hydatid Cyst : An Extremely Rare Localization

Yuksel Okumus,*
Mehmet Tayyar,†
Tahir Patiroglu,*
Ercan Aygen,†

*Departments of Pathology,
†Department of Obstetrics and Gynaecology,
School of Medicine, Erciyes University,
Kayseri, Turkey

Abstract : *Hydatid cyst is a parasitic disease caused by Echinococcus. Although the first and most important site for this parasite is the liver, it can be seen in pelvic organs as well. However, the primary involvement is very rare. We report a case with a primary involvement of the uterus which was operated on and was proven by microscopic studies. (Thai J Obstet Gynaecol 1993;5: 99-102.)*

Key words : hydatid cyst, uterus, localization

Hydatid cyst (Echinococcosis) is characterized by worldwide distribution and the incidence among human beings is dependent on the incidence in intermediate hosts including sheep, pigs, and cattle. The most common unilocular hydatid cyst is caused by Echinococcus granulosus while the alveolar type is caused by Echinococcus multilocularis[1]. A new species of Echinococcus, Echinococcus vogeli, has been identified in South America, and it may be responsible for most human hydatid cysts in the region[2].

Patients with simple or uncomplicated multivesicular cyst are usually asymptomatic. The cyst increases in size at the rate of about 1 cm/year. It is this gradually enlarging mass that compresses adjacent host structures leading to the signs of echinococcosis in humans. Abdominal pain and tenderness are the most common complaints. Jaundice and ascites are uncommon. If any secondary infection be added, tenderness, hepatomegaly, chills, and spiking temperatures will occur. Urticaria and erythema offer evidence of a generalized anaphylactic reaction. Vomiting with passage of hydatid membranes in the emesis (hydatidemesia) and passage of membranes in the stool (hydatidentria) may also occur. Intrabiliary rupture represents the most common complication

and occurs in 5 to 10% of cases. Suppuration, the second most common complication, is caused by bacteria from the biliary tract. The formation of the purulent material results in the death of the parasite and conversion into a pyogenic abscess[3,4].

Hydatid cyst is suggested by the presence of a symmetrical tumour mass and it is detected by palpation, routine roentgenograms of the abdomen or chest, radioactive scans, or sonography. An enzyme immunoassay, complement fixation, hemagglutination, latex agglutination, and bentonite flocculation tests are available in diagnosis. Diagnostic aspiration of intact cyst should not be performed because of the danger of rupture and spillage of cyst contents[3,4].

Surgical removal of an intact cyst is the preferred form of therapy. If this is impossible, marsupialization and sterilization of the cyst contents with 2% formalin, hypertonic solutions, and 1% iodine may be effective[3]. The use of imidazoles as an adjunct to surgery or in inoperable cases of echinococcosis has been advocated[4].

We report here a case of uterine hydatid cyst which is an extremely rare involvement.

Case Report

A 55-year-old woman, gravida 5, para 5, was referred with irregular vaginal bleeding for 2 months. Previous medical history was unremarkable. General examination showed no abnormality. On pelvic examination, the mass (8 cm in diameter) was on the right side of the uterus. It was not possible to differentiate from the right parametrium. The left parametrium was free.

On ultrasonography, a large septated and cystic mass (8x5 cm) was identified on the left side of the uterus (Fig.1). Ultrasonic examination demonstrated no other pathology in the abdomen.

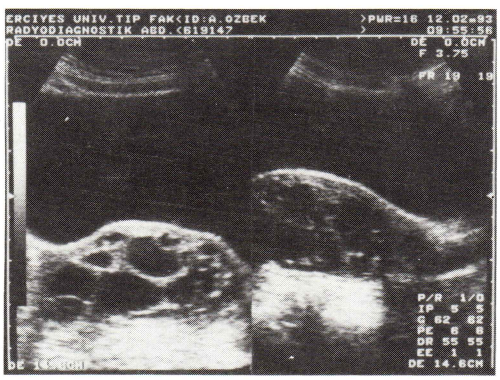

Fig. 1 Ultrasonic examination showing septated cyst.

Histological examination of the specimens from endometrium and cervix did not reveal any pathology. The remainder of the physical, gynaecological, and laboratory analyses, such as blood pressure, pulse, fasting plasma glucose, electrolytes, renal and liver function tests and chest X-ray were normal.

Laparotomy revealed that the right ovary was normal in size and adhered to the subserous mass of the uterus. Abdominal hysterectomy with

bilateral salpingo-oophorectomy was performed.

During macroscopic analysis the uterus weighed 160 g and measured 12x6x4 cm. On the right side of the uterus under the serosa and inside the myometrium a yellow colored irregular cystic cavity sized 6x4x3 cm appeared (Fig. 2). In this cavity there were a lot of chitinous layers of cysts, and the distance had no relation with the endometrial cavity. Macroscopic analyses of cervix, endometrium, fallopian tubes and ovaries revealed no other pathology.

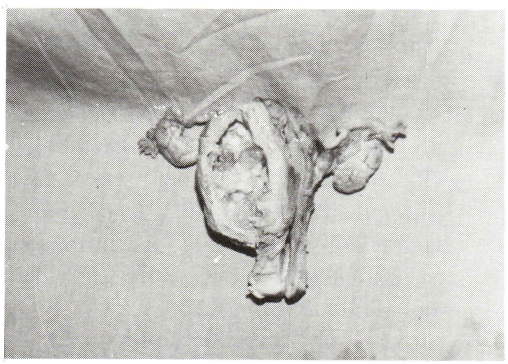

Fig. 2 Uterine specimen showing hydatid cyst.

Histologic examination of the cystic cavity showed a pericyst composed of hyalinized connective tissues. Inside the lumen there were pieces of chitinous layers composed of basophylic laminars and scolices were observed in some sections (Fig.3). Between the myometrial cells mononuclear cells infiltration was seen (Fig.4). Histologic analysis of endometrium and ovaries showed no other pathology.

After histological diagnosis we performed indirect hemagglutination test, and it was positive in 1/256 titration. During the operation the cyst was perforated. Therefore, after defi-

Fig. 3 Basophylic laminars and scolices. HE. X250.

Fig. 4 Mononuclear cell infiltration in the myometrium. HE. X 32.

nite diagnosis postoperatively we started albendazole therapy in doses of 10 mg/kg/day for 8 weeks for prophylactic purpose.

The patient did well postoperatively and was discharged on the 10th postoperative day. The patient was asymptomatic for 3 months postoperatively.

Discussion

Hydatid cyst is a parasitic disease caused by Taenia Echinococcus. Approximatelly 70% of hydatid cysts are located in the liver. The next important site for this parasite is the lung. Splenic, renal, cerebral, ocular and osseous hydatids have been described[1,4]. Patiroglu et al[5] reported hydatid cyst localizations of their 8 years experience. Of 190 hydatid cysts, 35 were located outside the liver and lung. The location of those patients were as follows: 7 omentum, mesentary, and peritonium, 5 brain, 5 muscle, 3 ligamentum latum, 3 spleen, 2 ovary, 2 thyroid, 2 bone, 2 subcutaneous tissue, 1 kidney, 1 the lumen of arteria femoralis and 1 breast.

Secondary involvement of the pelvic organs was seen. However, primary involvement is very rare. Hangval et al[6] reported an ovarian hydatid cyst in 1979.

Primary uterine hydatid cyst is an extremely rare condition. We found only two reports in the literature[7,8]. Diagnosis of the hydatid cyst with frequent localization is easy, but in infrequent localization like ours, the diagnosis is not easy.

We think that gynaecologists should remember hydatid cysts when they find septated cystic mass in the pelvis. Also, we think that if a hydatid cyst is diagnosed as in our case after an operation, one should start albendazole postoperatively.

References

1. Marcial MA, Marcial-Rojas RA. Protozoal and Helminthic Diseases. In : Kissane JM, ed. Anderson's Pathology. Saint Louis : CV Mosby, 1990: 460-1.
2. D'Alessandro A, Rausch RL, Cuello C. Echinococcus vogeli in man with a review of polycystic hydatid disease in Colombia and neighboring countries. Am J Trop Med Hyg 1979;28:303-17.
3. Schwartz SI. Liver. In: Schwartz SI, Shires GT, Spencer FC, eds. Principles of Surgery. Singapore: McGraw-Hill, 1989 : 1327-43.
4. Jones TC. Cestodes. In: Mandell GL, Douglas RG, Bennett JE, eds. Principles and Practice of Infectious Diseases. New York : Churchill Livingstone, 1990: 2155-7.
5. Patiroglu TE, Turgutalp H,Kandemir B, Bagriacik S, Karagoz F. The infrequent localizations of the hydatid cysts. Erciyes Med J 1983;5:393-402.
6. Hangval H, Habibi H, Moshref A, Rahimi A. Case report of an ovarian hydatid cyst. J Trop Med Hyg 1979;82: 34-5.
7. Emamy H. Primary hydatid of uterus : report of case and review of literature. Pahlavi Med J 1975;6:153-9.
8. Komongui DG, Diouf A, Dao B, Gentile B, Bah MD, Diadhiou F. Kyste hydatique de l'uterus (a'propos d'un cas observe´ a' la clinique gynecologique et obstetrical du CHU de Dakar). Dakar Med 1990;35:162-7.