

**PRIMARY HYDATID CYST OF SIGMOID MESOCOLON;
CASE REPORT.****Sigmoid kolonun primer hidatik kisti; Olgu sunumu.**

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ABSTRACT

The incidence of primary peritoneal echinococcosis is rare, and has been reported to occur in 2% of the all abdominal hydatid disease cases. Though the mechanism of primary peritoneal infestation is still not clear, dissemination via lymphatic or systemic circulation has been implicated. Clinical presentations vary with the site and size of cyst and usually result from complications due to mass effect of the enlarging abdominal cyst. CT scan is the imaging modality of choice for peritoneal disease. Total pericystectomy where possible, is the treatment of choice. We present an extremely rare primary peritoneal hydatid cyst of sigmoid mesocolon.

Key words: Primary peritoneal echinococcosis; hydatid cyst; CT scan; pericystectomy.

ÖZET

Primer peritoneal kisthidatikler nadiren görülürler ve bütün abdominal kisthidatiklerin %2'sini oluştururlar. Primer abdominal kisthidatiklerin oluş mekanizması henüz netlike kazanmamış olmakla beraber, lenfatik veya kan yoluyla ortaya çıktığı sanılmaktadır. Klinik belirtiler sıklıkla değişken olup, kistin yerine ve büyüklüğüne bağlı olarak çevresine yaptığı baskıya bağlı olarak ortaya çıkan belirtilerle kendini gösterir. Bilgisayarlı tomografi halen en uygun tanı aracıdır. Mümkün olan durumlarda perikistektomi seçilecek tedavi yöntemidir. Burada sigmoid kolon mezosunda yerleşim gösteren nadir bir primer kisthidatik olgusu sunulmuştur.

Anahtar kelimeler: Primer peritoneal ekinokokozis, hidatik kist, BT, perikistektomi.

INTRODUCTION

Hydatid disease is caused by the larval stage of dog tapeworm *Echinococcus granulosus* which usually has usually has "dog-sheep" cycle. Man becomes an accidental intermediate host by ingestion of eggs with contaminated vegetables, or while handling infected dogs with cystic echinococcosis. Echinococcosis infestation has been reported in any part of the body. Most of the abdominal hydatid cysts occur in liver. Extra hepatic hydatid cyst is usually secondary to rupture (operative and non-operative) of the hepatic hydatid cyst. Primary

extra hepatic hydatid cysts are rare and only a few sporadic cases have been reported. The incidences of primary intraabdominal extra hepatic cysts were reported in spleen (2.2%), pancreas (1.1%), peritoneum, pelvis and mesocolon (2.2%), gallbladder (0.6%) and adrenal (0.6%)(1, 2).

Case

A 25 year old male presented with a slowly progressive painless lump in the lower abdomen since last six month. There was no history of any bladder or

bowel abnormality. On abdominal examination a firm lump of size 25x25 cm was palpable in the hypogastrium extending mostly into the left hypochondrium with the lower limit of the mass unreachable. The lump was non tender with side to side mobility and dull on percussion.

Routine hematological investigations, liver function and renal function tests were within normal limits. Contrast enhanced CT scan of abdomen showed a well defined peripherally enhancing thin walled multicystic intraperitoneal mass suggestive of mesenteric cyst (Figure 1 and 2).



Figure 1: Contrast enhanced CT scan of abdomen showing a well defined peripherally enhancing thin walled multicystic intraperitoneal mass.

Exploratory laparotomy was done which revealed a 30x30 cm cyst arising from the sigmoid mesocolon adhering to the urinary bladder and reaching into the pelvis. The liver and spleen was found to be normal. Total excision of the cyst was done which weighed around 6 Kgs. Patient had an uneventful post operative recovery. (Figure 3-5). Histopathology of the specimen was suggestive of

hydatid cyst of the sigmoid mesocolon. Patient was given a regime of postoperative albendazole.



Figure 2: Contrast enhanced CT scan of abdomen showing a well defined peripherally enhancing thin walled multicystic intraperitoneal mass without any liver and splenic cyst.



Figure 3: Intraoperative photograph showing a large cyst arising from sigmoid mesocolon.

DISCUSSION

On reviewing the literature, the incidence of primary peritoneal echinococcosis was reported to be around 2% amongst all the abdominal hydatid diseases. Though the mechanism of primary peritoneal infestation is still not clear, dissemination via lymphatic or systemic circulation has been implicated. Disseminated

primary peritoneal hydatid diseases have also been reported (2-5, 6-9)

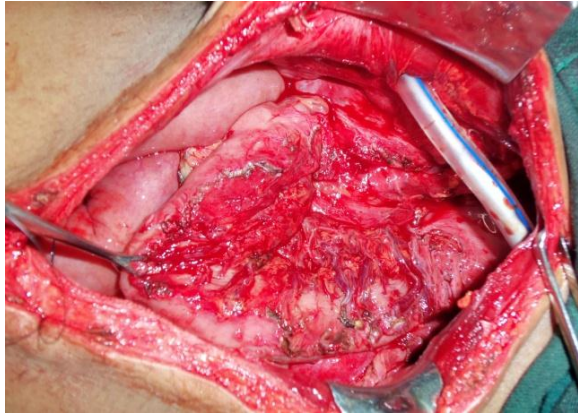


Figure 4: Sigmoid colon with mesocolon after excision of the cyst.



Figure 5: Specimen of 30x30 cm and 6 kgs of primary peritoneal hydatid cyst of sigmoid mesocolon.

Clinical presentations vary with the site and size of cyst and usually result from complications due to mass effect of the enlarging abdominal cyst. Abdominal pain, distention, intestinal obstruction, urticaria, urinary symptoms and a palpable mass with a large cyst are the most common presentations. On reviewing the literature a case of sigmoid colon obstruction is reported in a case of sigmoid mesocolon primary peritoneal hydatid disease, similar to our case. Intra peritoneal rupture may also present as acute abdomen. Antigenic fluid released into the peritoneal cavity and absorbed into the circulation may present with acute allergic manifestations (3, 4, 10, 11)

Imaging like abdominal ultrasonography or contrast-enhanced computed scan are the diagnostic investigations revealing well-defined and circumscribed lesions with or without internal septations. Daughter cysts, hydatid sand and sometimes wall calcification are also seen. CT scan is the imaging modality of

choice for this peritoneal disease. Few serological tests are used in diagnosis with considerable differences in sensitivity and specificity. Complement fixation test is positive in approximately 65% of patients where as Indirect hemagglutination test is 85% sensitive. ELISA has a sensitivity varying from 64% to 100% depending on the antigen used (12-14).

Surgery remains the best curative or palliative treatment for primary peritoneal echinococcosis, although antihelminthics like albendazole or mebendazole can be effective alternative for the treatment of small and asymptomatic cysts. Total pericystectomy where possible, is the treatment of choice. When cysts are attached to intraperitoneal viscera, drainage and wide deroofting is safer and is as effective as total cystectomy. Follow up with antihelminthics is recommended (2-4, 15, 16).

REFERENCES

1. Macpherson CN. Observation on human echinococcosis (Hydatidosis) and evaluation of Transmission factors in Masai and North Tanzania. *Ann Trop Med Parasitol* 1989;83(5):489-97.
2. Wani RA, Malik AA, Chowdri NA, Wani KA, Naqash SH. Primary extrahepatic abdominal hydatidosis. *Int J Surg*. 2005;3(2):125-7.
3. Karavias DD, Vagianos CE, Kakkos SK, Panagopoulos CM, Androulakis JA. Peritoneal echinococcosis. *World J Surg* 1996;20(3):337-40.
4. Balik AA, Celebi F, Basoglu M, Oren D, Yildirgan I, Atamanalp SS. Intra-abdominal extrahepatic echinococcosis. *Surg Today* 2001;31(11):881-4.
5. La Torre F, Giacomelli L, Messineti S. Unusual site of Hydatidosis: A case with a mesenteric location. *Minerva Chir* 1988;43(19):1615-9.
6. Iuliano L, Gurgo A, Poletti E, Gualdi G, De Marzio P. Musculoskeletal and adipose tissue hydatidosis based on the Iatrogenic spreading of cystic fluid during surgery: Report of a case. *Surg Today* 2000; 30(10):947-9.
7. Astarcioglu H, Kocdor MA, Topalak O, Terzi C, Sökmen S, Özer E. Isolated mesosigmoidal hydatid cyst as an unusual cause of colonic obstruction: Report of a case. *Surg Today* 2001;31(12):920-2.
8. Mansori O, Zenter A, Sair K, Sakit F, Bounaim A, Janati IM. Peritoneal Hydatid Cyst. Apropos of 12 cases. *Ann Chir* 2000;125 (4):351-7.
9. Ramji S, Kulshrestha R, Sehgal S, Khandpur SC. Primary peritoneal echinococcosis. *Indian Pediatr*. 1987;24(3):258-9.
10. Astarcioglu H, Koçdor MA, Topalak O, Terzi C, Sökmen S, Özer E. Isolated mesosigmoidal hydatid cyst as an unusual cause of colonic obstruction: report of a case. *Surg Today*. 2001;31(10):920-2.

11. Vuitton DA. Echinococcosis and allergy. *Clin Rev Allergy Immunol.* 2004;26(2):93-104.
12. El-Tahir MI, Omojola MF, Malatani T, Al-Saigh AH, Ogunbiyi OA. Hydatid disease of the liver: Evaluation of ultrasound and computed tomography. *Br J Radiol* 1992;65(773):390-2.
13. Coltorti EA. Standardisation and evaluation of an enzyme immunoassay as a screening test for the seroepidemiology of human hydatidosis. *Am J Trop Med Hyg.* 1986;35(5):1000-5.
14. Biffin AH, Jones MA, Palmer SR. Human hydatid disease: Evaluation of an ELISA for diagnosis, population screening and monitoring of control programmes. *J Med Microbiol* 1993;39(1):48-52.
15. Khare DK, Bansal R, Chaturvedi J, Dhasmana JP, Gupta S. Primary peritoneal echinococcosis masquerading as an ovarian cyst. *Indian J Surg* 2006;68(4): 173.
16. Acharya AN, Gupta S. Peritoneal hydatidosis: A review of seven cases. *Trop Gastroenterol.* 2001; 30(1):32-4.