Unusual Localization of Hydatid Cyst

Z. Türkyılmaz, K. Sönmez, R. Karabulut, İ. H. Göl, A. C. Başaklar, N. Kale
Gazi University Medical Faculty Department of Pediatric Surgery, Ankara, Turkey.

Key words. Hydatid cyst ; retroperitoneum.

Abstract. We report a case of a single large echinococcal cyst that originated from the retroperitoneal space. Diagnosis was confirmed with serologic test and radiological examinations. Especially in the endemic areas hydatid cyst should be considered when evaluating cystic masses and it can be treated by extraperitoneal operation.

Introduction

Hydatid disease is prevalent in most sheep-raising Mediterranean Countries (1). It is often manifested by a slowly growing cystic mass and most often involves the liver and the lungs. The annual incidence of hydatid disease has been reported to be 18 to 20 cases per 100,000 inhabitants (2). Retroperitoneal localization of hydatid cyst is unusual (3), that is why we found it interesting to present this patient treated in our clinic.

Case Report

A 9-year-old girl was admitted to our clinic with the complaint of a swelling at her left lower quadrant for seven days, which grew very rapidly. Her vital signs were within normal limits and abdominal physical examination revealed a mass of 8 cm’s in diameter in the left lower abdominal quadrant. The mass was stiff, immobile and painless on palpation.

Laboratory findings were : Hemoglobin : 11.5 gr/dL, white blood cell count 10,500/mm³, blood urea nitrogen : 13 mg/dL, creatinine : 0.8 mg/dL, erythrocyte sedimentation rate 63 mm/h, aspartate aminotransferase: 22 U/L, alanine aminotransferase 19 U/L other biochemical results were within normal range. Indirect hemagglutination for hydatid disease : 1/2560 (+).

Chest X-ray revealed no pathological signs and abdominal plain X-ray showed increased soft tissue density between the left iliac fossa and umbilicus. Intravenous urography (IVP) has shown that both kidneys were functional but the left ureter is displaced medially (Fig. 1). In abdominal ultrasonography (US) and computed tomography (CT) scans a cyst measuring 11x9x13 cm in size, with a thick and smooth wall and detached internal membrane, between the pelvis and the umbilicus was detected which displaced the bladder and intestine to the medial direction (Fig. 2).

At operation the cystic lesion was approached directly via a 2 cm long left lower transverse muscle splitting incision. The cystic contents were aspirated which revealed infected cystic material. The germinative membrane and cystic content were evacuated through a cystotomy. Three percent NaCl solution was used as scolicidal agent. A tube drain was placed into the cyst.
and the abdominal muscles and skin were sutured. The postoperative period was uneventful. Cristaline penicillin G and amikacin were administered for 7 days, the drain was removed on the seventh postoperative day and preoperatively begun albendazole was administered for three months intermittently.

Discussion

Retroperitoneal location of hydatid cyst is rare even in endemic areas. The vast majority of abdominal and pelvic cysts are considered to be secondary to prior hepatic involvement following spontaneous rupture or surgical inoculation. Isolated retroperitoneal location is exceptional. ANGULO et al. reviewed cases of this condition in endemic areas of central Spain and estimated that 1.1% of newly diagnosed cases were isolated retroperitoneal lesions (4). Haemotogenous or lymphatic spread could account for a solitary retroperitoneal lesion (5, 6). Retroperitoneal cysts are generally discovered as a palpable mass or as a cause of flank pain and urinary symptoms. Infection of the cyst and abscess formation are rare complications. The differential diagnosis of retroperitoneal cysts also includes embryonal cyst, pararenal pseudocyst, lymphangioma, ovarian neoplasm, teratoma and other cystic or necrotic solid tumors (4). IVP can be useful for evaluation of renal, ureteral and bladder compression. Unilocular or multilocular cysts can be diagnosed via US examination whereas CT appears to yield more information (4).

In endemic areas such as Turkey, retroperitoneal hydatid disease can solitarily exist without findings on liver, lungs and other abdominal organs. During surgery, the cyst should be approached extraperitoneally to avoid risk of peritoneal seeding. Especially in endemic areas hydatid disease should be suspected in the cases of intraabdominal and retroperitoneal cystic masses. In conclusion, it must be realised that the choice of treatment in any kind of hydatid cysts is primarily surgical intervention.

References