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Case Report

An unusual choledochal echinococcosis

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Abstract. Hydatid disease caused by the *Echinococcus granulosus* is a common health problem in Turkey, Middle East and Mediterranean Countries. The most affected organs are the liver and the lungs. The other organ involvements such as spleen, kidney, brain and muscle are rare. Here we present a case of hydatid cyst of the choledochus with an inactive group of liver hydatid cyst, producing obstructive jaundice.

Key words: Echinococcosis, choledochus, obstructive jaundice

1.Introduction

Hydatid disease caused by Echinococcus granulosus is common in Turkey, Middle East and Mediterranean countries and is an endemic disease in our area (the east of Turkey). The common sites of the disease are liver and lungs; other rare sites are omentum, mesentery, peritoneum, pleura, brain, spleen, bones, kidneys, muscles, subcutaneous tissues and skin (1-3). We present an unusual choledochal echinoccosis with an inactive group of liver hydatid cyst in this report. A case of hydatid cyst of the choledochus, producing obstructive jaundice, is presented.

2.Case report

The patient, a 65 years old male, was examined in November 2001 in the surgical outpatient department. He presented with progressive jaundice associated with high coloured urine and clay coloured stools for 15 days. Over the past two months, he has been complaining of continuous dully pain in the right upper quadrant with occasional exacerbation. An intermittent jaundice was observed. He had no history of fever with chills. Neither organomegaly nor ascites were found in physical examination.

Conjugated fraction of serum bilirubin level was 0.99 g/dl, total bilirubin level 1.84 g/dl, serum ALP (alkaline phosphatase) level 579 U/L, aspartate aminotronsferase (AST) 45 U/L and gonmoylutonyl glutamyltransferase (GGT) 202 U/L when he was accepted to our clinic. Protein and coagulation profile of serum were normal. Haemoglobin concentration and leucocyte counts were within normal range. Chest X-ray and X-ray examination of abdomen were normal.

Ultrasonography of the abdomen revealed a mild thickening of the wall of the gall bladder, dilatation of choledochus (15 mm) and 50x50 mm calcified hydatid cyst (inactive group according to WHO standardised classification) in the right liver lobe (4) (WHO standardised classification; Active group: cysts developing and are usually fertile, Transition group: cysts starting to degenerate, but usually still contain viable protoscoleces, Inactive group: degenerated or partially or totally calcified cysts/very unlikely to be fertile).

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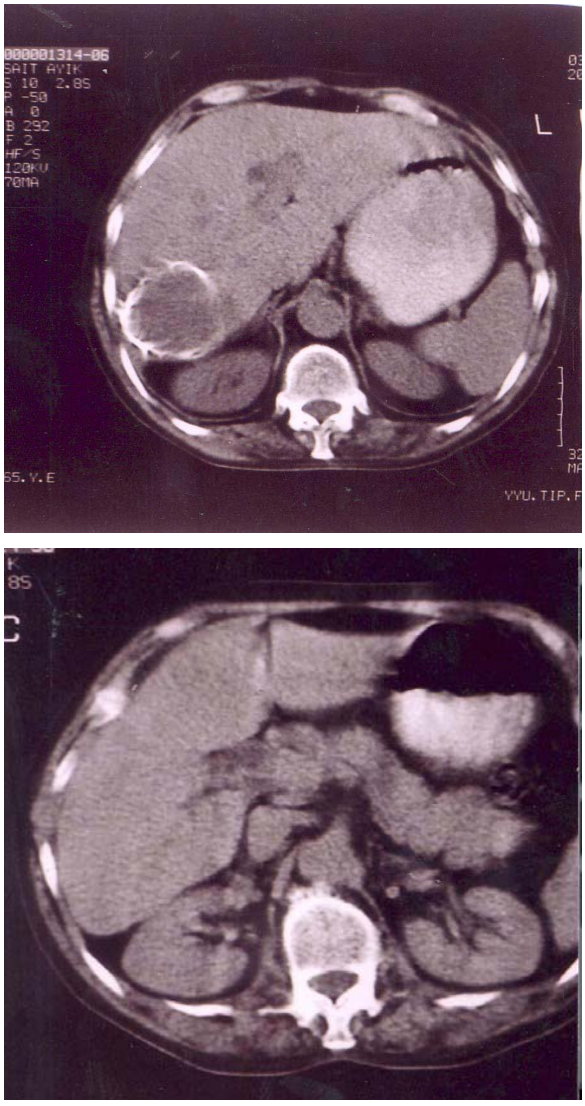

Figure 1,2. Computerized tomography reveals a lesion that had peripheric calcification evaluated as a inactive hydatid cyst and a hypodens lesion with approximately 10 mm diameter is seen in distal part of choledochus.

Computerized tomography of the abdomen revealed a few bile-stones about 10 mm in size in the gall bladder, dilatation of intrahepatic bile duct of the right liver lobe, a 50x60 mm lesion with peripheric calcifications evaluated as an inactive hydatid cyst and also an approximately 20mm diameter cystic lesion close to the distal part of choledochus (Figure 1, 2). Through a right subcostal incision, abdominal exploration was performed and a 50x50 mm calcified lesion was palpated in the right liver lobe. This lesion was evaluated as an inactive hydatid cyst therefore no surgical attempt to excise this intrahepatic lesion was considered. The gall bladder was thick walled, and contained multiple small calcules. The choledochus was approximately 20 mm in diameter. Cholecystectomy and choledochotomy were performed. Two cystic structure were found in choledochus. The cysts having yellow-white membrane were removed and sent to histopathology laboratory for signing out. Transduodenal sphincteroplasty was also added in order to obtain better drainage. Histopathological examination of the removed cystic structure from the choledochus confirmed the diagnosis of hydatid cyst.

ALT, AST conjugated bilirubin, unconjugated bilirubin, ALP and GGT returned to their normal levels on postoperative day 9. The patient had uneventful recovery.

3. Discussion

The majority of hydatid cysts are found in the liver and lungs. A few of the embryos of the ecchinococcus that are filtered by these organs, immigrate to the left side of the heart and then get into the arterial circulation. They can settle in any organ, resulting in the formation of hydatid cysts (1,2). The rare sites of hydatid cyst are omentum, mesentery, peritoneum, pleura, spleen, bones, kidneys, muscles, subcutaneous tissues and skin (3). Hydatid cyst in the choledochus is rare (5).

WHO standardised classification was reported that inactive group has degenerated or partially or totally calcified cysts/very unlikely to be fertile. Our patient had 50x50 mm calcified hydatid cyst (inactive) in the right liver lobe and also a smaller hydatid cyst, with livedoughter vesicles in it, in the distal part of choledochus. At this point we think that active fields must have been in inactive group hydatid cyst in our patient and then it might have ruptured into biliary tract.

Alper et al, reported 28 cases of intrabiliary rupture of hydatid cyst and also reviewed 282 cases from the literature of the period from 1954-86 (6). Wu et al, from China reported 37 cases of intrabiliary rupture of hydatid cyst and also treated 2785 hydatid cyst of the liver (7). Our case had an inactive hydatid cyst in the right lobe of liver and free hydatid cysts in choledochus. Choledochal cysts were 10 mm in diameter and caused obstructive jaundice. In our literature survey, we did nat meet any choledochal cyst with inactive liver cyst.

Hydatid cyst of the choledochus should be considered in differential diagnosis in case of obstructive jaundice especially in the endemic areas of hydatid disease. And active fields in inactive groups hydatid cyst may exist and lead to complication such as biliary rupture as in our case.

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