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Kist Hidatik Perkutanöz Tedavisinde Ciddi Bir Komplikasyon: Safra Fistülü ve İskemik Karaciğer

A Serious Complication of Percutaneous Treatment of Hydatid Cycts: Bile Fistula and Ischemia of Liver

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Öz

Ekinokokkoz, larval evredeki Echinococcus'un yol açtığı, dünyada yaygın olarak görülen kist-formlu zoonitik bir hastalıktır. Tedavi edilmediği takdirde, biliyer sistem fistülleri, anafilaksi ve periton içinde kız vezikül ekilmesine neden olan rüptürlere yol açabilir. PAIR (Perkutanöz aspirasyon, irrigasyon ve reaspirasyon) seçilmiş hastalarda efektif ve güvenilir bir tedavidir. Fakat ender de olsa hayati tehlike yaratan komplikasyonları olabilir. Bu nedenle PAIR uygun cerrahi ve medikal koşulları olan merkezlerde uygulanmalıdır. Perkutanöz olarak tedavi edilen, biliyer fistül ve hepatik iskemi komplikasyonlarına yol açan hidatik kist vakasını sunduk.

Anahtar Kelimeler: Echinococcosis, biliyer fistül, PAIR

Abstract

Echinococcosis is a zoonotic, cyst-forming parasitic disease of worldwide distribution caused by the larval stage of the Echinococcus. When left untreated, grow and follow one of several courses such as fistulae with adjacent organ or biliary system, rupture into the peritoneal cavity caused anaphylaxis, rupture into peritoneal cavity seeding daughter cysts. PAIR (percutaneous aspiration, irrigation with scolicide and respiration) has been utilized safely an effectively in selected patients. But rarely, a complication of PAIR can be life-threatening. Therefore, PAIR should only be performed in centers with appropriate medical and surgical modalities. We present a case of percutaneous treatment of hydatid cyst with a serious complication: biliary fistula and hepatic ischemia.

Keywords: Echinococcosis, bile fistula, PAIR

INTRODUCTION

Echinococcosis is a zoonotic, cyst-forming parasitic disease of worldwide distribution caused by the larval stage of the Echinococcus. It is caused by a parasite, Echinococcus granulosus a cestode that lives in the small intestine of dogs and other canines. Humans are inadvertent intermediate hosts in the life cycle of the tapeworm. Humans become infected via ingesting eggs shed in dog faeces. The most common site of occurrence of hydatid cysts in humans is the liver (50%-93%) (1). Liver Cystic Echinococcosis (CE) is considered a relatively benign disease. But when left untreated, grow and follow one of several courses such as fistulae with adjacent organ or biliary system, rupture into peritoneal cavity caused anaphylaxis, rupture into peritoneal cavity seeding daughter cysts (2). Moreover, infection of the cyst can facilitate the development of liver abscesses and cause mass effect on bile ducts and vessels, leading to cholestasis, portal hypertension and the Budd-Chiari syndrome (3).

The treatment options are surgery, percutaneous treatment and chemotherapy. Surgical procedures range from simple puncture and aspiration of cyst content to partial resection of the affected organ. An immediate cure is claimed for surgical treatment of liver cysts, but even with radical procedures, this is far from being achieved, with morbidity, mortality and relapse rates of 32%, 8%, 20%, respectively (4). PAIR has

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been utilized safely an effectively in selected patients. The main complication associated with PAIR is chemical sclerosing cholangitis and biliary stricture, bleeding, infection, intraperitoneal spillage of cyst contents and biliary fistulae. Allergic reactions and anaphylaxis (<%1) may also occur (5).

We present a case of percutaneous treatment of hydatid cyst with a serious complication: biliary fistula and hepatic ischemia.

CASE PRESENTATION

Fifty-three years old male patient presented to our surgery department with right upper quadrant abdominal pain. He had no history of chronic disease. On his physical examination, he had tenderness in right upper quadrant of the abdomen. Ultrasonographic examination revealed with maximal diameters of 10x10 cm hydatid cyst. All routine laboratory tests were normal. The Echinococcal haemagglutination test (IHA) was 1/320 positive. The patient was accepted to the general surgery department. The cyst was drained percutaneously with ultrasonographic guidance and irrigated with hypertonic saline and 95% ethanol solution intermittently. During the procedure, a fully equipped anesthesiology team was present in case of anaphylactic shock. Definitive diagnosis was confirmed by demonstrating protoscoleces and hydatid membranes in the liquid obtained by percutaneous aspiration of the cyst. There was no complication of PAIR and after the patient stayed hemodynamically stabled, he was discharged.

After two days the discharge, the patient admitted to the emergency unit with a fever. And computed abdomen tomography scan revealed suspicious ischemia of liver and cyst compression to portal vein (figure 1). Blood tests showed abnormal liver function (aspartate transaminase (AST) = 75 U/L, alanine transaminase (ALT) = 128 U/L, gamma-glutamyl transpeptidase (GGT) = 1151 U/L, alkaline phosphatase (ALP) = 428 U/L). Percutaneous treatment and catheter placement into the cyst were performed. After two days, endoscopic retrograde cholangiopancreatography (ERPC) and stent placement were performed on the presence of 3000 cc bile drainage per day from the catheter (figure 2). But liver function tests continued to rise for 4 days and bile drainage was up to 2000 cc per day, therefore, ERCP and stent placement of right and left hepatic duct was performed. After procedure liver function tests tended to decrease. The patient discharged after one month with healthy.

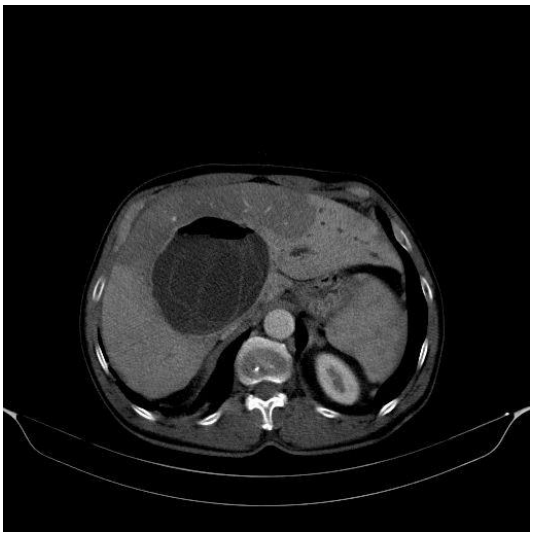

Figure 1

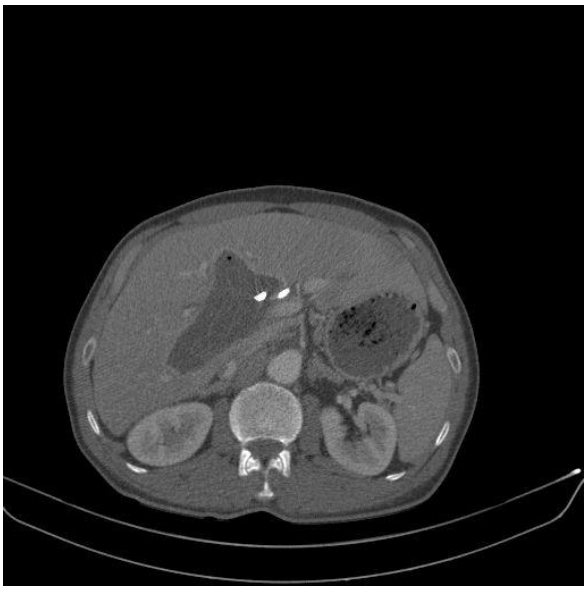

Figure 2

DISCUSSION

It was reported that complication and recurrence rates of PAIR are better than surgery (6). The complication of PAIR are rare but life-threatening complications may occur. In our case, the patient had uncontrolled biliary fistula and liver ischemia of paranchime due to PAIR treatment. After PAIR treatment, catheter placement to cyst cavity, ERCP and twice stenting were performed to control biliary fistula. Hospitalization period of PAIR without any complication is one day. But this period can be between 17-20 days for a patient in the event of a complication. When any complications occur, hospital stay prolongs and cost of the treatment increases (7). Our patient stayed at the hospital for 45 days following percutaneous treatment and the catheter was kept in the cavity until daily drainage ceased.

Cystobiliary communication, which occurs as a result of cyst rupture into the biliary tree, is the most complication of liver hydatid disease, with an incidence of 10% - 37% for occult rupture and 3% - 17% for frank rupture (8). In our patient, there was a cysto biliary communication and was to difficult to manage it. This complication was life-threatening and caused an increase in the cost of treatment and hospitalization period. After PAIR treatment, a complication of biliary fistula is difficult to manage and require a multidisciplinary approach.

PAIR is a useful and effective method in selected patients. But rarely, a complication of PAIR can be life-threatening. Therefore, PAIR should only be performed in centers with appropriate medical and surgical modalities.

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