

Atypically Located Hydatid Cyst Cases: Four Unusual Case Reports

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Abstract

Hydatid cysts are frequently located in liver (65-70%) and lungs (25%). The disease is usually asymptomatic when located in the extrahepatic regions. Sometimes, diagnosis can be established by observing germinative membrane, rockwater, or daughter vesicles during the operation.. A 41-year-old female patient applied with the complaint of intermittent left inguinal pain. Echinococcus Indirect Hemagglutination (IHA) test was positive. In the ultrasonographic examination, a hypoechoic area was observed in the posteromedial of the left femoral head.. A 56-year-old female patient, applied with the complaints of intermittent nausea, vomiting, and epigastric pain. She had a history of surgery for liver hydatid cyst 15 years ago and for lung hydatid cyst 10 years ago. IHA test of the patient was positive. The lesion involving septation and accompanied by calcifications around the cyst was reported as a hydatid cyst at dynamic CT for pancreas and upper abdominal MRI. A 22-year-old female patient applied with perianal pain complaint. Drainage was planned for the patient who had a pre-diagnosis of perianal abscess. Tissues similar to the hydatid cyst membrane were excised together with purulent fluid. The patient was diagnosed with hydatid cyst after the pathology result was reported "as compatible with hydatid cyst". A 32-year-old female patient had a non-metabolic adrenal subcapsular cyst (hydatid cyst?) in the right adrenal gland on ultrasonography performed for abdominal pain. In abdominal tomography, a "cystic mass compatible with hydatid cyst located in the adrenal gland in the upper pole of the right kidney" was reported. IHA test of the patient was negative. Hydatid cysts located in the perianal region and muscles have been reported as atypical localizations in the literature, and some of them were diagnosed as a result of preoperative clinical evaluation and radiological imaging. Some were diagnosed as a result of pathological examination after the operation. Surgical treatment is an option in suitable cases, and the definitive diagnosis can be established by pathology. Consequently, it should be considered that cystic lesions detected in the patients living in endemic regions can be extrahepatic hydatid cyst that is localized in different anatomical regions.

Keywords: Atypical, hydatid cyst, echinococcus

Introduction

Hydatid cyst is a zoonotic disease and is an important endemic health problem in South America, the Middle and Far East and the Mediterranean region (1,2). The disease is frequently located in liver (65-70%) and lungs (25%). When the hydatid disease is located in other extrahepatic regions, it is generally asymptomatic and symptoms related to the cyst compression or rupture can be seen (3,4). Advanced imaging techniques together with physical examination may be required for the detection of the organs involved. Sometimes, diagnosis can be established in the patients, who were taken to operation with non-specific findings, by observing germinative membrane, rockwater, or daughter vesicles during the operation. The aim of the present study is to present the hydatid cyst cases detected in the anterior of the left abdominal acetabulum, head of the pancreas, in the perianal region, and on the right adrenal gland in the patients who applied to the Department of General Surgery

of Gaziantep University Sahinbey Hospital, together with the treatment approaches and clinical results in view of the literature.

Case Reports

Case-1

A 41-year-old female patient, who was living in a rural area and had close contact with animals, applied to our clinic with the complaint of intermittent left inguinal pain lasting for 5 months. The patient did not have any comorbidities and history of drug use. In the physical examination of the patient, who did not have any history of operation other than the femoral surgery 10 years ago, no finding was found except for tenderness in the left inguinal region. In the laboratory examinations, biochemistry and hemogram tests were taken and the results were found normal. Only echinococcus Indirect Hemagglutination (IHA) test was positive. In the

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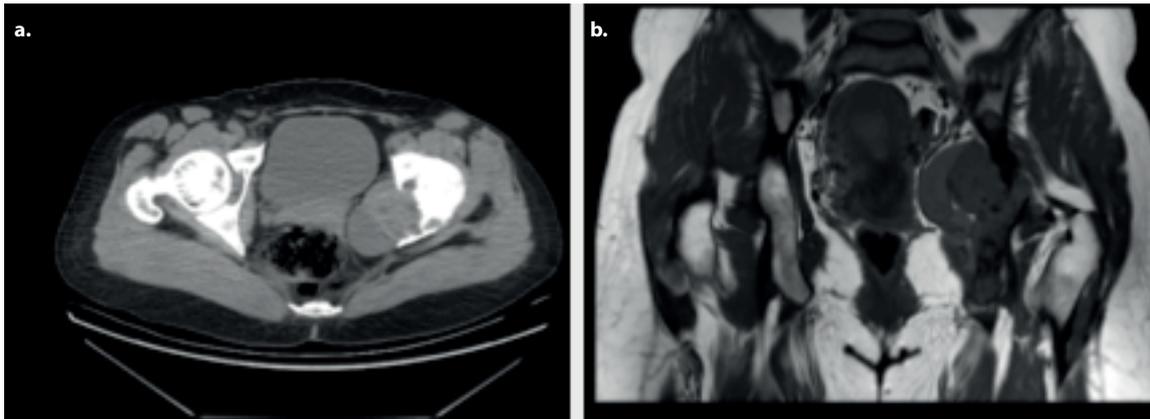


Figure 1a. Cystic lesion with a size of 52x53 mm in the left iliac bone-acetabulum localization. Described expansive cystic lesion continues till the ischium level in the left side.

Figure 1b. No multi-ocular, cystic appearance in the left iliac bone-acetabulum or no significant contrasting in the bone component of the lesion was observed. In the medial side of this lesion, peripherally contrasted multiple areas with the largest one having a size of 34x22x54 mm.

ultrasonographic examination, a hypoechoic area with an approximate size of 6x4 cm was observed in the posteromedial neighbourhood of the left femoral head. In pelvic computed tomography (CT) and magnetic resonance imaging (MRI), a lesion that is compatible with a cyst of approximately 5 cm was observed in acetabulum (Fig. 1a. and Fig 1b).

During the preoperative imaging, no lesion was detected in the patient except for the existing cyst. The patient was taken to operation and cystectomy was performed, albendazole (10 mg/kg/day) treatment started after the operation. Pathology result of the patient was assessed as “compatible with hydatid cyst”. The patient had no additional complaints or physical examination findings in the control follow-up. Albendazole treatment was terminated at the end of 3 months and control was recommended every 6 months.

Case-2

A 56-year-old female patient, applied with the complaints of intermittent nausea, vomiting, and epigastric pain for 1 year. The patient was diagnosed with pancreatic cyst at another centre and was referred to our centre for further examination and treatment due to the possible cystic neoplasms of the pancreas. The patient, who did not have any comorbidity, had a history of surgery for liver hydatid cyst 15 years ago and for lung hydatid cyst 10 years ago. In the physical examination of the patient, no finding except for incision scar caused by the previous operation and epigastric tenderness was found. In the laboratory examinations, biochemistry and hemogram tests were assessed as normal. IHA test of the patient was positive. The patient was assessed together with dynamic CT for pancreas and upper abdominal MRI (Fig. 2). The lesion involving septation and accompanied by calcifications around the cyst was reported as a hydatid cyst.

Albendazole treatment was started for the patient and a surgical treatment was planned. The patient was taken to operation and cystotomy was performed for the cystic lesion at the head part of the pancreas. Germinative membrane

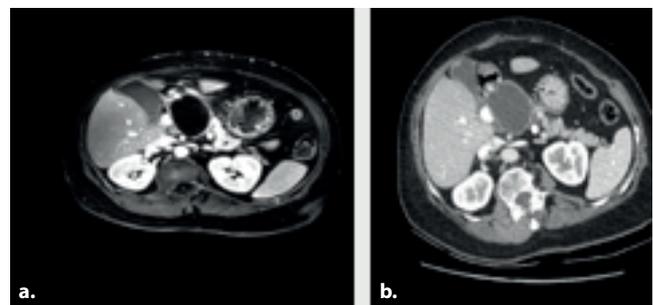


Figure 2a. Upper abdominal MR; a 64x47 mm hyperintense cystic lesion with lobulated contours, starting from the proximal part of the pancreatic body and extending to the superioraperiportal area.

Figure 2b. Abdominal CT; a 68x61 mm cystic lesion at the level of the pancreatic head and body section, which is contrasted peripheral oedematous after IVCN, accompanied by septation and peripheral calcifications (hydatid cyst?, IPMN?)

and daughter vesicles were observed in the cyst. Pathology result was assessed as “compatible with hydatid cyst”.

Case-3

A 22-year-old female patient applied to our outpatient clinic with perianal pain complaint. The patient had severe perianal tenderness that complied with the localization of the lesion. The patient had no comorbidity. Drainage was planned for the patient who had a pre-diagnosis of perianal abscess. In Jack-knife position, swelling and redness were observed at the radius of 9 o'clock position in perianal region. Under local anaesthesia, drainage was performed with a 0.5 cm incision. Tissues similar to the hydatid cyst membrane were excised together with purulent fluid. The content was sent to pathologic examination with the suspicion of hydatid cyst. The patient was diagnosed with hydatid cyst after the pathology result was reported “as compatible with hydatid cyst”.

Other organs were normal in the imagings conducted for screening purposes.

No abnormal values were found in the hemogram and biochemistry tests of the patient. Albendazole (10 mg/kg/

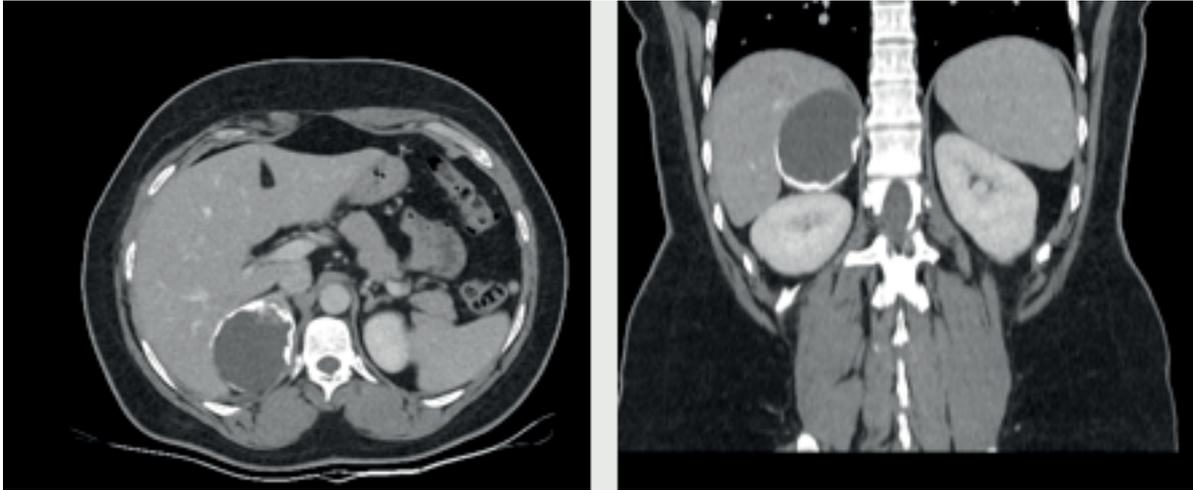


Figure 3a,b. In the abdominal tomography, a 62x65 mm nodular-linear calcified cystic lesion with dense membrane applying compression on the adrenal gland and liver in the upper pole of the right kidney without any significant contrast after IVCM E, had attracted attention. The imaging finding was reported as 'It was primarily thought to be adrenal hydatid cyst'

day) treatment was started. After 3 months, the treatment of the patient was terminated as she had no complaints. There was no need for a second surgery.

Case-4

A 32-year-old female patient was examined by an endocrinologist with the pre-diagnosis of a cystic mass in the right adrenal gland in the examinations performed due to the right upper quadrant pain. Additional examination was performed in terms of differential diagnosis of adrenal masses. The patient was consulted to us with the diagnosis of a non-metabolic adrenal mass. Ultrasonography of the patient was reported as an 80x65 mm subcapsular cystic lesion (hydatid cyst?) in the right lobe posterior of the liver. At the abdominal tomography, a “cystic mass compatible with hydatid cyst located in the adrenal gland in the upper pole of the right kidney” was reported (Fig. 3a and Fig 3b).

IHA test of the patient was negative and her other routine blood examinations were normal. Surgical intervention was not considered for the patient, who was thought to be diagnosed with adrenal hydatid cyst with a calcified membrane, and follow-up decision was taken.

Discussion

Echinococcus eggs infect people with direct contact with water, food, and dogs. From the intestines, the larvae reach the liver through the veins. Sometimes they cause the disease by passing through the liver or reaching the lungs via lymphatics. Then, they can reach other places in the body, less frequently through the blood.

It is known that Turkey is in an endemic region in terms of hydatid cyst (1).

Hydatid cysts located in the perianal region and muscles have been reported as atypical localizations in the literature,

and some of them were diagnosed as a result of preoperative clinical evaluation and radiological imaging. Some were diagnosed as a result of pathological examination after the operation (5).

Hydatid cyst lesions that are located close to the pancreas are reported in the literature, and abdominal distension, jaundice, and pain can be seen in the patients. IHA test in these patients may be negative (6). Surgical treatment is an option in suitable cases, and the definitive diagnosis can be established by pathology.

Consequently, it should be considered that cystic lesions detected in the patients living in endemic regions can be extrahepatic hydatid cyst that is localized in different anatomical regions.

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