Ciliated Hepatic Foregut Cyst Mimicking a Hydatid Cyst: A Case Report and Review of Literature

Bita Geramizadeh, Alireza Salehzadeh, Saman Nikeghbalian

Transplant Research Center, Shiraz University of Medical Sciences, Shiraz, 71345-1864, Iran

Address:
Dr. Bita Geramizadeh, Transplant Research Center, Shiraz University of Medical Sciences, Shiraz, 71345-1864, Iran.
E-mail: geramib@sums.ac.ir

ABSTRACT

A ciliated hepatic foregut cyst is a rare cystic lesion of the liver. A 25-year-old man who was referred from an area endemic for hydatid cysts, presented with abdominal pain. Clinical, paraclinical, and imaging studies all suggested the presence of a hydatid cyst. Pathological studies after the resection of the cyst showed the presence of a ciliated hepatic foregut cyst.

Key Words: Hepatic foregut cyst, hydatid cyst, review

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A ciliated hepatic foregut cyst is a rare entity, the first case having been described by Friedrich in 1857,[1] but the term first used by Wheeler and Edmondson in 1984.[2] Since then, numerous cases have been reported mostly in Japanese patients,[3] where they have mimicked other lesions such as neoplasms[4] or parasitic cysts.[3] In this report, we present a case of a hepatic foregut cyst that was operated with the diagnosis of a hydatid cyst of the liver in a patient from an endemic area.

CASE HISTORY

A 25-year-old man presented to us with abdominal pain but no remarkable medical history; he was referred from an area endemic for *Echinococcus granulosus*. His chief complaint was a right upper quadrant pain; physical examination findings were unremarkable. Laboratory work-up including liver function tests were completely unremarkable Abdominal sonography revealed a well-defined lesion (27 × 16 mm, 54 HU) in the anterosuperior aspect of the right lobe of the liver, which was highly suggestive of a hydatid cyst [Figure 1]. Serological testing for Echinococcus granulosus was positive for a hydatid cyst. Surgery was undertaken in view of the consideration that a hydatid cyst was the most logical diagnosis in an area of high endemicity for the disease. A small cyst was found during the operation, and a segment of the liver was resected and sent for pathological investigations.

A piece of the liver tissue received in the pathology laboratory was found to have a collapsed cystic structure. The inner and outer surfaces of the cyst were smooth and the wall thickness was <0.1 cm [Figure 2]. Microscopic examination showed a cystic lesion lined by ciliated columnar epithelium, beneath which there were some smooth muscle fibers, collagen, and connective tissue [Figure 3].

The cyst lining was uniform with no evidence of atypia and it was completely in the liver parenchyma. Noncystic liver parenchyma was unremarkable; the lesion was diagnosed as a hepatic foregut cyst. The patient was discharged from the hospital in a good condition and without any complication.

DISCUSSION

Hepatic cysts are present in approximately 5% of the general

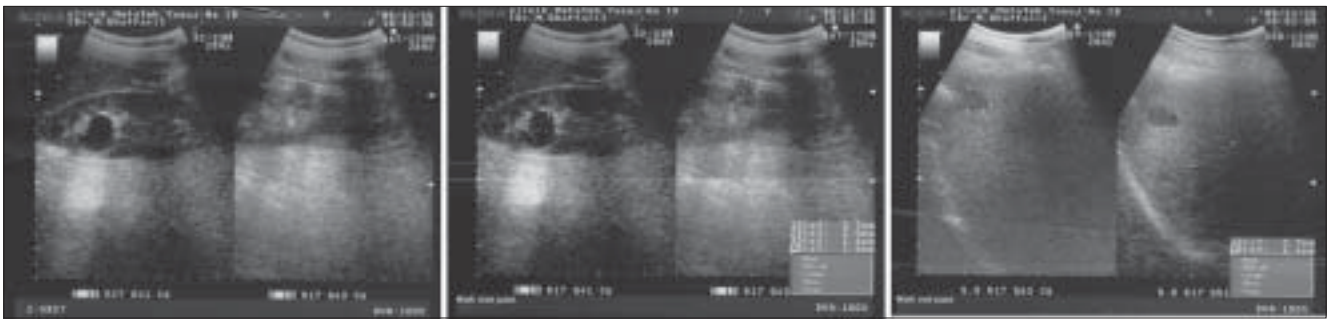

Figure 1: Abdominal sonography shows a well defined, hypodense lesion in the dome of the right lobe of liver

Figure 2: Gross view of the liver cyst

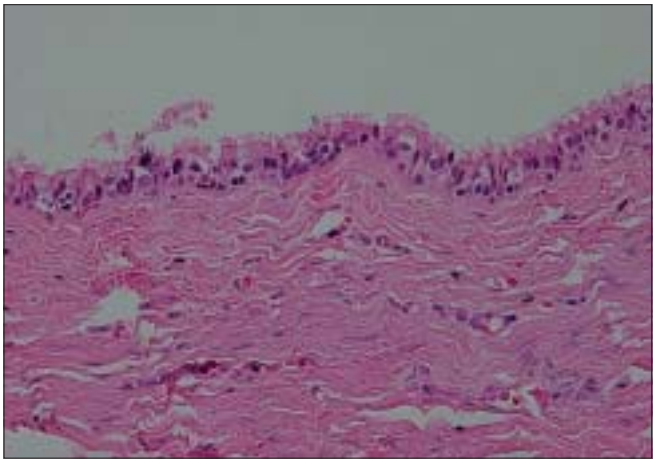

Figure 3: Sections of the cyst show ciliated columnar epithelium (H and E, ×200)

population.[5] A hepatic foregut cyst is a rare entity with most of the reported cases being from Japan. This cyst may arise from remnants of embryonic foregut, but the exact etiology is unknown.[6]

A hepatic foregut cyst is histologically similar to a bronchogenic cyst.[7] There are hypotheses about its etiology, i.e., it is created because of communications between the thoracic and abdominal cavities through the pericadio-peritoneal canal, eventually separated by pleuroperitoneal membranes.[8]

Most of the cases are reported in adults[9] and the majority of them have been asymptomatic and found incidentally during abdominal imaging studies or surgical exploration. More than 85% of the cases were reported during the last two decades.[5] Since the first report by Friedreich in 1857, about 65 cases have been published, but none from the Middle-East.[5]

The recent rise in case reports is likely explained by increased detection rates, because of the dramatic rise in the use of abdominal imaging.[5] The differential diagnostic possibilities include simple (cholangiogenic) cysts, parasitic cysts, hepatobiliary cystadenomas, and cystic metastatic tumors.[3,10]

There are rare case reports of the malignant transformation of hepatic foregut cysts, which highlight the importance of careful diagnosis and clinical follow-up of the patients.[11-13] According to our case report, a hepatic foregut cyst should be included as a differential diagnosis of liver cysts even in areas endemic for parasitic cysts.

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