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A Rare Cause of Recurrent Abdominal Pain

Ali Ghavidel[1*]

1. Liver and Gastrointestinal Diseases Research Centre, Tabriz University of Medical Sciences, Imam Reza hospital, East Azerbaijan, Iran

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A 30-year-old man presented with a nine-months history of repetitive abdominal pain simulating dyspepsia. Nine months before presentation, a local physician saw him, and he performed upper gastrointestinal endoscopy for him, and was diagnosed as a case of mild gastritis with oral omeprazole, but without any benefit. So the patient was seen at another center and was evaluated by abdominal computerized scan (CT scan) and colonoscopy which both of them were normal. The patient was evaluated and treated also by psychiatrist as a case of functional disease. On admission to our clinic, the patient had complaints of epigastric pain, nausea, and vomiting. Laboratory investigations revealed the following results: aspartate aminotransferase: 37 IU/L, alanine aminotransferase: 24 IU/L, alkaline phosphatase: 67 IU/L, total bilirubin: 1.8 mg/dl, conjugated bilirubin: 1.6 mg/dL, hemoglobin: 13.7 g/dl, white blood cell count: 12.1 K/mm^3, platelet count: 297000/mm^3 and eosinophil count 0.2%/mm^3. Magnetic resonance cholangiopancreatography (MRCP) revealed irregular focal choledochal wall thickening with partial obstruction of the distal choledochus.

Endoscopic retrograde cholangiopancreatography (ERCP) was performed due to extrahepatic cholestasis; which was revealed a maximum choledochus diameter of 16 mm, and showed multiple filling defects and irregular choledochal wall margin (Figure A). After endoscopic sphincterotomy and balloon extraction, two live wide objects were forced out through the sphincterotomy site to the duodenal lumen (Figure B). Occlusion cholangiography with a balloon catheter was performed to evaluate for remaining objects in the common bile duct, which showed none. The objects were suctioned through the duodenoscope and sent for pathological evaluation.

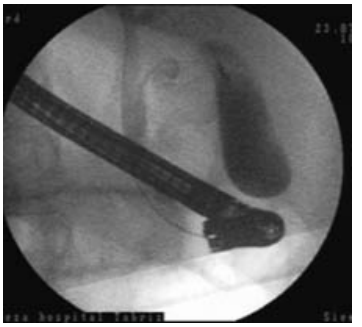

Fig. A: Endoscopic retrograde cholangiography image

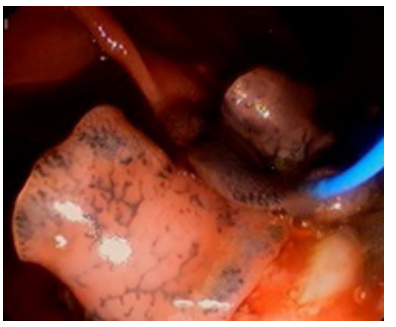

Fig. B: Macroscopic image of extracted material outside the choledochus after sphincterotomy

* **Corresponding Author:**
Ali Ghavidel, MD
Liver and Gastrointestinal Diseases Research Centre, Tabriz University of Medical Sciences, Imam Reza hospital, East Azerbaijan, Iran
Telefax: + 98 411 3347554
Email: Ali.ghavidel3@gmail.com
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What is your diagnosis?

Endoscopic Extraction of Living Fasciola Hepatica

DISCUSSION

The liver fluke *Fasciola Hepatica* is one of the few parasites that can cause recurrent cholangitis. Human hepatobiliary infection with this organism includes two stages: an acute, invasive, hepatic phase that starts one to three weeks after infestation, and a chronic biliary phase that starts three to four months after the contaminated material is ingested. Although some overlap may occur in endemic areas, where repetitive infestation occurs and acute lesions are superimposed on chronic disease. The clinical and pathologic features of these two phases are different and pose distinct diagnostic challenges.[1,2]

The clinical manifestations of hepatic fascioliasis vary according to the stage of the disease. In the initial hepatic invasion, fever, abdominal pain, hepatomegaly, general malaise, dyspepsia, eosinophilia, and positive serologic testing may be observed for three months. During the second phase, when the parasite is in the main biliary duct, the disease may feature episodes of biliary colic with or without cholangitis, or obvious signs of biological cholestasis, or may remain silent. In some instances, lack of eosinophilia in combination with the absence of manifestations of the disease can make diagnosis quite difficult.[3]

As noted earlier, fascioliasis may be overlooked in chronic cases. This condition should always be included in the differential diagnosis when US or MRCP images show irregular and thickened common bile duct walls. The ERCP images typical of *F.hepatica* suggest biliary fascioliasis.[4] Some cases has been underwent cholecystectomy also, and after long time suffered cholangitis attacks. This indicates either incomplete response to treatment or a second infestation. As noted above, in patients with biliary fascioliasis, ERCP frequently demonstrates typical features of *F.hepatica* in the gallbladder,[3,5] dilated bile ducts with small, radiolucent linear or crescent-like shadows, suggesting parasites and with jagged, irregular margins.[6,7] ERCP is an important tool for direct diagnosis and for providing bile drainage.

Chronic biliary fascioliasis may be asymptomatic and the proportion of these cases compared to the acute form is not known. When the condition is left untreated, biliary complications of iron deficiency anemia, biliary obstruction and related pain, cholangitis, or portal fibrosis may result.[4,8] In order to prevent the development of irreversible complications such as secondary biliary cirrhosis, it is vital to perform a thorough investigation for parasite eggs in patients with suspected biliary fasciolasis.

The technique of endoscopic sphincterotomy was initially introduced to treat common bile duct stones; however, the indications have been expanded to include other biliary disorders. Currently, this method is considered the optimal approach for biliary parasitosis, including biliary ascariasis and biliary hydatid disease.[9,10]

Previous reports on two patients have noted success with the combination of ERCP and sphincterotomy for extracting *F.hepatica* from the biliary tree.[4,11] This treatment is adequate for providing biliary drainage and resolving the cholangitis attack, but complementary therapy with an appropriate anti-parasitic regime is mandatory. Our case emphasizes the need for sufficient treatment and thorough follow-up in patients with fascioliasis. This is the only way to prevent acute or irreversible chronic complications.

CONFLICT OF INTEREST

The authors declare no conflict of interest related to this work.

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