Hepatobiliary fascioliasis treated at endoscopic retrograde cholangiopancreatography

In most parts of Asia, hepatobiliary fascioliasis is sporadic and has been traditionally attributed to travel to endemic zones. Recently the World Health Organization has described fascioliasis as an 'emerging human disease', with cases being increasingly reported from non-endemic zones.

A 28-year-old woman presented with a 2-month history of abdominal pain. Examination revealed fever and tender hepatomegaly. Laboratory investigation showed the following results: hemoglobin, 9.4 g/dL; white cell count, 9100 cells/mm^3 (24% eosinophils); aspartate aminotransferase, 64 IU/L; alanine aminotransferase, 84 IU/L; and alkaline phosphatase, 746 IU/L. Computed tomography (CT) scan demonstrated multiple complex hepatic cysts (**Fig. 1**).

At endoscopic retrograde cholangiopancreatography (ERCP) the cholangiogram showed a non-dilated common bile duct with multiple irregular ill-defined filling defects. During balloon extraction after sphincterotomy (**Video 1**), live flat leaf-shaped adult *Fasciola hepatica* were withdrawn from the bile duct (**Fig. 2**).

The patient was treated with triclabendazole (10 mg/kg) in two divided doses, and continues to be symptom-free after 6 months of follow-up.

Human hepatobiliary infection by this trematode has two distinct phases: an acute hepatic phase and a chronic biliary phase. The acute phase is clinically manifested by upper abdominal pain, fever, hepatomegaly, and intense eosinophilia. In the chronic biliary phase, the adult worms attach to the mucosal lining of the biliary tree, where they may survive for years, causing periodic biliary obstruction.

ERCP in biliary fascioliasis may be normal in early disease and closely mimics primary sclerosing cholangitis in the chronic phase [1]. A short sphincterotomy is often adequate to achieve removal of these soft parasites [2]. Some authors have described intraductal endoscopic treatment of massive biliary fascioliasis by means of 10% povidone iodine solution [3,4]. Although results have been encouraging in small groups of patients, larger studies need to validate the safety of intraductal endoscopic treatment before accepting it as a standard endoscopic intervention for biliary fascioliasis.

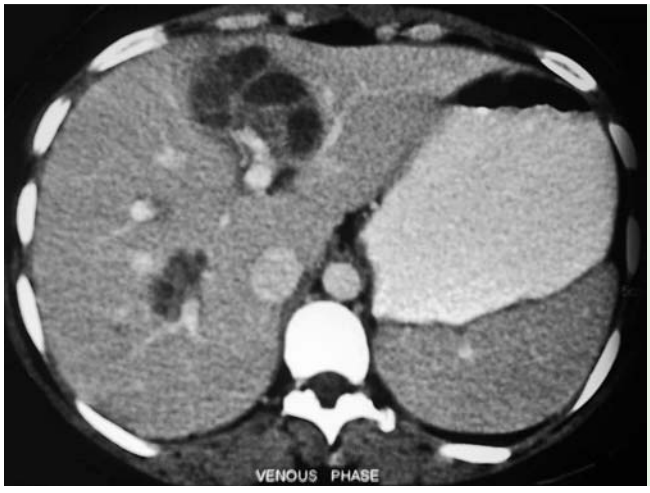

Fig. 1 Portal venous phase computed tomography scan showing multiple hypodense non-enhancing complex cystic lesions in the liver.

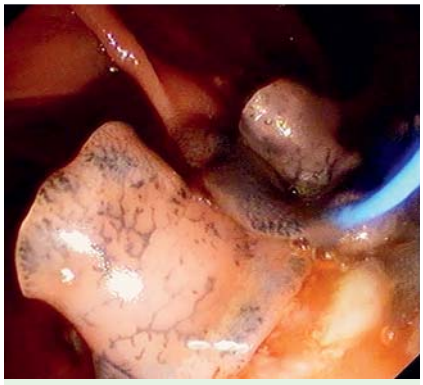

Fig. 2 Endoscopic image of a live *Fasciola hepatica* emerging from the bile duct during balloon extraction at endoscopic retrograde cholangiopancreatography.

In view of the global increase of migrant populations and international food trade, boundaries between endemic and non-endemic zones for human fascioliasis are being blurred. Hence, diagnosis of human fascioliasis should be strongly suspected in patients presenting with the triad of abdominal pain, hepatomegaly, and hypodense liver parenchymal lesion with or without peripheral eosinophilia even in non-endemic regions.

Competing interests: None

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Video 1

Endoscopic sphincterotomy and balloon extraction of live *Fasciola hepatica* from the bile duct.

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