

Acute Fascioliasis-Rare Cause of Obstructive Jaundice – A Case Report

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Abstract

Fascioliasis is a zoonotic infection caused by *Fasciola hepatica*. Humans can become accidental hosts of this parasite by ingesting contaminated drinking water or plants in fluke prone area. In India this is of rare occurrence. This disease is rarely seen with jaundice caused by obstruction of the biliary tree. We report a case of human fascioliasis with obstructive jaundice who was diagnosed using endoscopic retrograde cholangiopancreatography (ERCP).^{1,2}

Case Report

38 year male, farmer by occupation came with complaints of right hypochondriac pain and jaundice since 3 months with history of nausea intermittently. On examination mild pallor and moderate icterus was present. On abdominal examination only mild tenderness in right hypochondrium with mild hepatomegaly. Patient was investigated. Liver Function Tests which showed total serum bilirubin 2.2 milligrams per deciliter, direct 0.9 mg/dl, indirect 1.3 mg/dl. Alanine aminotransferase 76 U/l, aspartate transaminase 84 U/l, Serum alkaline phosphatase 244 U/l. Ultrasonography of abdomen showed dilate common bile duct (8-9 millimetres), early dilatation of intra hepatic biliary radicals with suspicious stone in lower end of common bile duct. Endoscopic Retrograde Cholangiopancreatography was done. It showed prominent papilla which was cannulated (Fig. 1). Cholangiography revealed mild dilatation of common bile duct and common hepatic duct and intrahepatic biliary radicals, filling defect in lower end of common bile duct. Sphincterotomy was done (Fig. 2). Balloon was swept in common bile duct and leaf shaped fleshy specimen of fluke was extracted with foreign body forcep (Figs. 3-5). Specimen sent for morphometric analysis. Prophylactic biliary stenting was done. Praziquantel given in dose of 50 milligrams/

kilogram for 15 days. Morphometric analysis and histology showed worm was *Fasciola hepatica* (Fig. 6). Stent was removed after 4 weeks. Patient had uneventful recovery.

Discussion

Fascioliasis is geographically more prevalent than the other liver flukes and has been reported from Asia, Africa, United Kingdom, Russia, Germany, the Crescentic islands and South America. Man is accidentally infected by eating watercress or other aquatic plants contaminated with the encysted metacercaria³ of the worm; the latter develop into larvae which eventually gain entry into the biliary tree after penetrating through the intestinal wall, peritoneum and Gilsson's capsule.⁴ Typical symptoms that may be associated with fascioliasis can be divided by phases of the disease including the acute or liver phase, the chronic or biliary phase, and ectopic or pharyngeal fascioliasis.⁵ The acute (or hepatic) stage is characterized by fever, abdominal pain, headache, pruritus, urticaria, weight loss, and eosinophilia. Transaminase levels are in normal range or are only minimally elevated, and bilirubin levels are typically in normal range. The biliary phase is usually asymptomatic, but it

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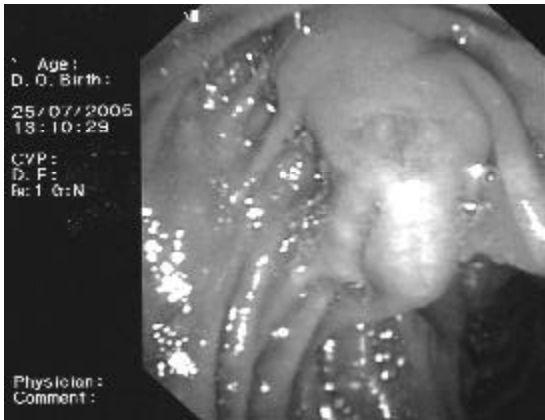


Fig. 1 : Prominent papilla.

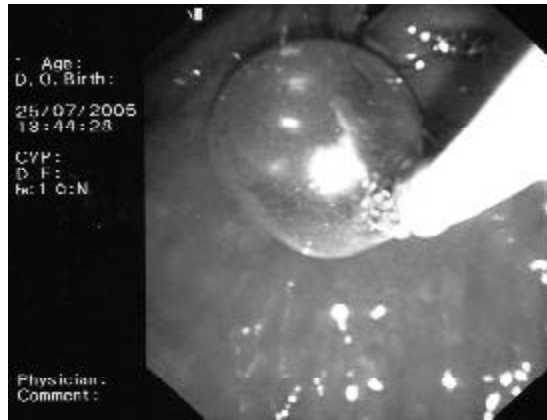


Fig. 4 : Balloon sweeping.



Fig. 2 : Worm in common bile duct.

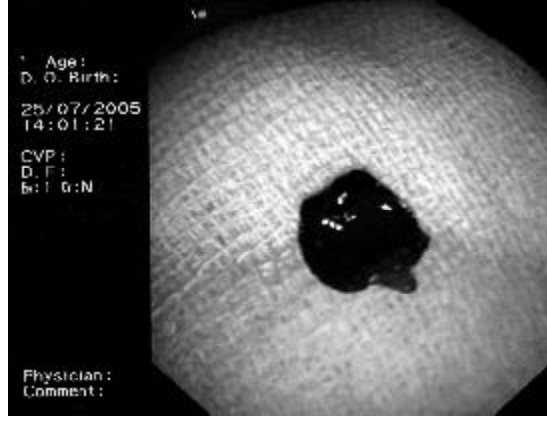


Fig. 5 : Extracted worm (fasciola hepatica).



Fig. 3 : Sphincterotomy.

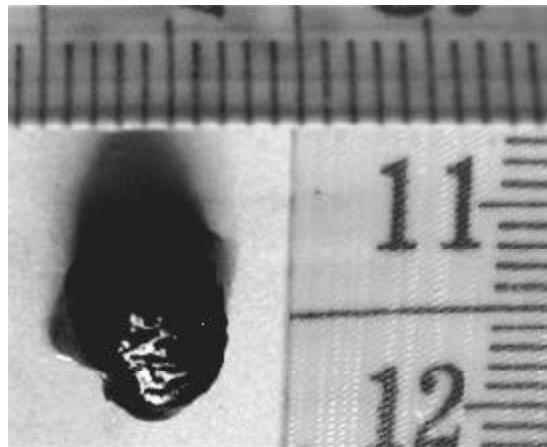


Fig. 6 : Morphometry.

is rarely reported in the medical literature that it can lead to extrahepatic obstruction and cholestasis, as was the case with our patient. Besides the direct obstructive effect of the fluke over bile ducts, secondary fibrosis and stricture formation can be seen during chronic infestation. During the first 3-4 months of acute infection, immunologic techniques play an important role in the diagnosis of fascioliasis. An enzyme-linked immunosorbent assay (ELISA) has a sensitivity of 100% and a specificity of 97.8%.⁶ During the early larval stage of infection, eggs are not found in the stool. However, stool can be examined for eggs during the biliary stage of infection. Because eggs are released sporadically, the number of eggs excreted can vary widely, and it may be necessary to examine multiple concentrated stool specimens. With the above mentioned case report, we should consider the role of imaging studies such as ERCP in the diagnosis of infestation.

For treatment of worms, bithionol in the dosage of 30-50 mg/kg of body weight on alternate days has been recommended as treatment of choice. However, praziquantel, emetine hydrochloride, and chloroquine have been successfully used. We found praziquantel is an effective agent in our patient. A single dose of triclabendazole, a well-tolerated benzimidazole used in daily practice that is highly effective against mature and immature flukes.⁷ Triclabendazole can be

given as a single oral dose of 10 mg/kg or, in cases of severe infection, in two 10 mg/kg doses given 12 h apart. Triclabendazole should be administered with food to increase its bioavailability.⁸ Surgery is occasionally required in event of failure of endoscopic treatment.

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