LETTER TO THE EDITOR

Biliary Ascariasis

Sir,

Ascariasis is a common helminthic infestation in Malaysia. Ascaris lumbricoides normally lives in the upper small bowel without causing symptoms. Complications arise when these worms migrate into the bile duct (biliary ascariasis) causing biliary colic, cholangitis, acalculous cholecystitis and hepatic abscess[1]. A case of biliary ascariasis presenting as biliary colic is described. Diagnosis was established at Endoscopic Retrograde Cholangio-Pancreatography (ERCP). Endoscopic removal of the worm led to rapid resolution of symptoms.

A 55-year-old Chinese woman presented to our hospital in May 1992 with severe epigastric pain. On examination she looked pale and was pyrexial. There was tenderness over epigastrium and right hypochondrium. Full blood count showed a hemoglobin of 9.7g/dl, total white count of 7.6 x 10^9/1, eosinophil count was 21%. Liver function tests were remarkable for raised alkaline phosphatase 225iu/1 (36-92). Upper gastrointestinal endoscopy was normal.

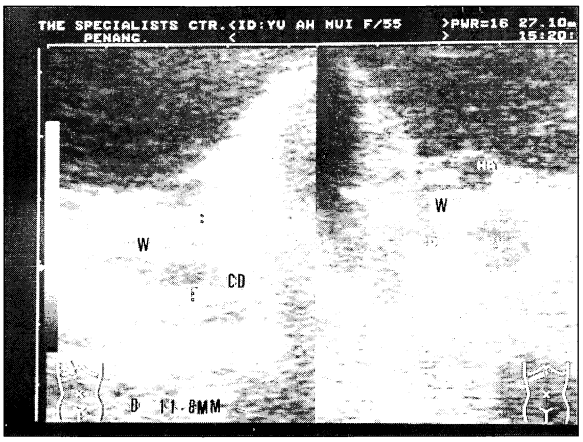

Fig. 1: Longitudinal and transverse ultrasound scans showing a long, linear, nonshadowing echogenic structure representing the worm (W) in the dilated common bile duct (CD)

Initial abdominal ultrasound was reported as normal. ERCP demonstrated a long, linear filling defect extending from the common bile duct into the intrahepatic ducts. Further procedures were not done because of lack of co-operation from the patient. She received anti-helminthic treatment and was discharged home well. Three weeks later, her LFT failed to normalise. Repeat ERCP revealed dilated common bile duct with a long, linear filling defect pallisading the common bile duct. A small sphincterotomy was required and a dead worm was extracted with a dormia basket.

She was discharged home well but returned 5 months

Fig. 2: Endoscopic retrograde cholangio-pancreatography revealing a long, linear, smooth filling defect (arrows) in the dilated common bile duct (CBD) and extending up into the hepatic duct (HD)

later with epigastric pain. Ultrasound this time showed dilated intra and extrahepatic bile ducts with a long, linear nonshadowing echogenic structure. ERCP revealed a long, linear filling defect in the common bile duct. A live 13 cm long roundworm was extracted from the common bile duct using the dormia basket. She was treated with albendazole and had remained well since.

The commonest presentation of biliary ascariasis is recurrent biliary colic (95%)[2] which was clinically difficult to distinguish from cholelithiasis. Ultrasound is a useful sensitive and specific tool for diagnosing biliary ascariasis with an accuracy of about 86% provided the radiologist is aware and alerted to the sonographic appearances[3]. The characteristic sonographic features include: (a) a single or multiple long, linear or curved echogenic structure without acoustic shadowing; (b) a thick, long, linear or curved, nonshadowing echogenic strip containing a central, longitudinal anechoic tube, probably representing the digestive tract of the worm[3].

ERCP is an excellent diagnostic and therapeutic tool for biliary ascariasis. At ERCP the roundworms in the biliary tree appear as smooth, long, linear or curved filling defects with tapering ends[2]. Surgery had been the traditional method of removal of worm from the bile duct until the advent of ERCP. Endoscopic removal of worm from the bile duct is safe, minimally invasive and effective.

Fig. 3: Live ascarid (arrow) extracted from the bile duct endoscopically using the dormia basket

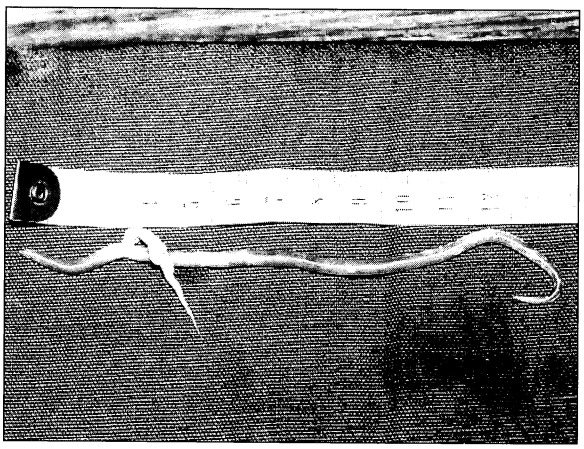

Fig. 4: Extracted live ascarid measuring about 13 cm long

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References

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