

Case illustrated

Biliary ascariasis presenting with obstructive jaundice: Illustration of sonographic findings

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An 8-year-old female child presented with yellowish discoloration of the eye, acholic stool, and cola-colored urine for one week. She has had a history of colicky right upper quadrant abdominal pain aggravated by fatty meals and non-projectile vomiting for the past year. On physical examination, vital signs were in the normal range, the patient had icteric sclerae and non-revealing abdominal examination. Laboratory tests revealed mild direct hyperbilirubinemia with normal liver enzymes and negative hepatitis virus markers. Abdominal ultrasound showed a normal-sized liver with homogeneous echotexture. The gallbladder was of normal size and wall thickness with no visible intraluminal mass or stone. The common bile duct (CBD) was dilated, measuring 5.2 mm on the anteroposterior measurement, and there was a luminal echogenic tubular structure with a hypoechoic center (Fig. 1) which was visualized to move spontaneously in real-time evaluation (Video 1). The intrahepatic bile ducts were also minimally dilated. A stool examination revealed *Ascaris* eggs. The patient was treated with albendazole and a rescans three weeks later found no worm in the CBD and there was a marked reduction in CBD lumen caliber concurrent with symptomatic improvement and biochemical resolution.

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Biliary ascariasis results from the intermittent migration of adult worms into the biliary tree through ampulla of Vater [1]. Abdominal ultrasound (US) is highly sensitive and specific, with diagnostic findings of mobile, non-shadowing, echogenic tubular structures with central hypoechoogenicity and characteristic slow movement on a real-time scan, as clearly demonstrated in our patient [2–4]. Dilatation of the common bile duct can also be seen, and a follow-up US can confirm the exit of worms with successful treatment [3]. Treatment includes medical

therapy, which can be suboptimal in those presenting with obstructive jaundice, and removal with ERCP [1,4]. In the presented case, albendazole therapy achieved successful expulsion of the worm on an interval scan with mild residual dilatation of the common bile duct.

CRedit authorship contribution statement

Raja Tamiru: Data curation, Methodology, Writing – original draft.
Fekadu Belay: Writing – original draft, Writing – review & editing.
Tesfahunegn Hailemariam: Conceptualization, Methodology, Writing – review & editing.

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Consent

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Conflicts of interest

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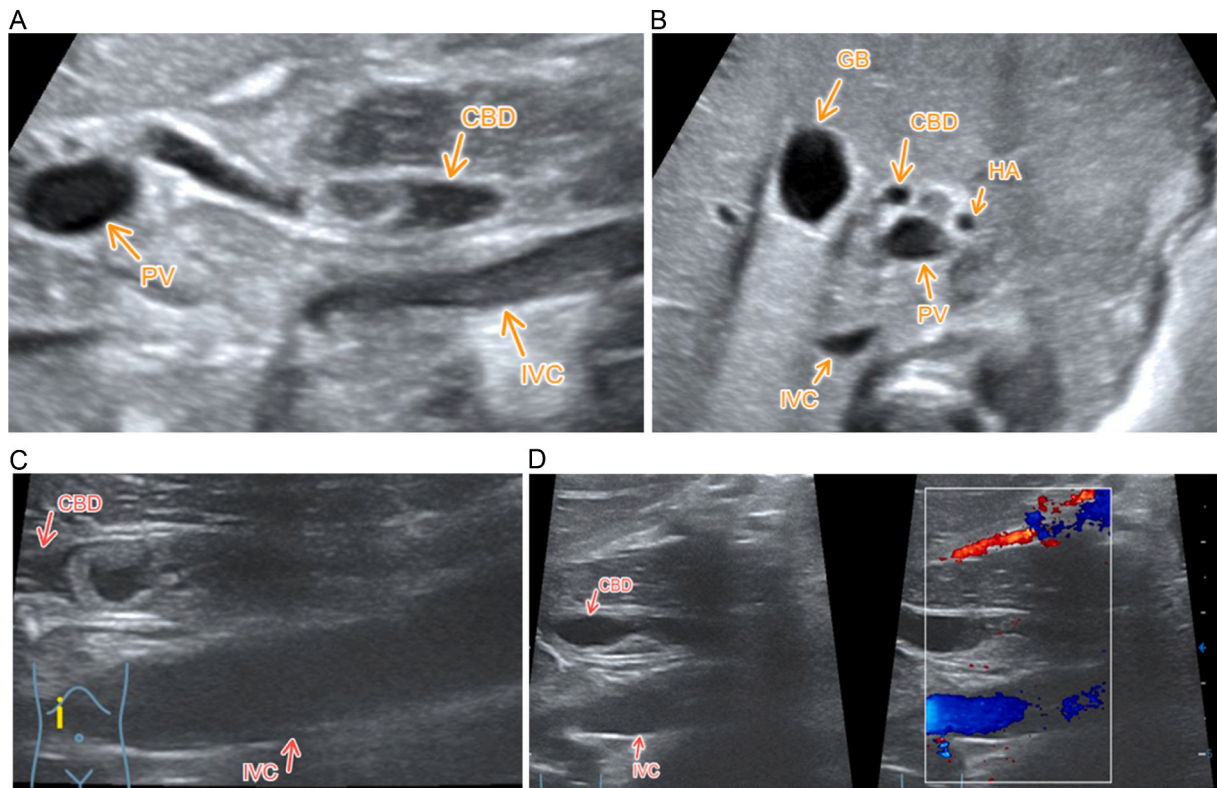


Fig. 1. A transverse (A and B) and longitudinal (C and D) scans show the presence of echogenic tubular structures with hypoechoic center in a dilated common bile duct. CBD: common bile duct, HA: hepatic artery, IVC: inferior vena cava, PV: portal vein.

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