Unusual cause of biliary obstruction : hepatobiliary fascioliasis

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To the Editor,

We report a 30-year old female who presented to our clinic with severe abdominal pain, irradiating to the back, weight loss, fatigue and anorexia. The laboratory findings revealed increased levels of alanine transaminase, aspartate transaminase and bilirubin. The patient underwent abdominal ultrasonography (US) and magnetic resonance imaging (MRI). US showed hypoechoic areas located mainly in the subcapsular region of the liver. On MRI, hypointense lesions on T1-weighted images and hyperintense nodular lesions on T2-weighted images were seen within the liver (Fig. 1). Nodular lesions were peripherally enhancing in gadolinium-enhanced images. According to the US and MRI results hepatobiliary fascioliasis was considered as a diagnosis. Subsequently, endoscopic retrograde cholangiopancreatography (ERCP) was performed and fasciola flukes were extracted from extrahepatic bile ducts.

The parenchymal phase of hepatic fascioliasis manifests as clusters of microabscesses with ill-defined borders and a variable echogenicity pattern ranging from echogenic to hypoechoic. In addition, lesions arrange in a characteristic tract-like fashion, usually in the subcapsular regions with slow evolution of the lesions on follow-up examinations (1,2). The biliary phase is characterized by echogenic floating particles and mobile parasites in the gallbladder or the common bile duct (CBD), mild CBD or intrahepatic biliary duct dilatation and thickening of the gallbladder and CBD walls.

Multiple hypoechoic lesions were seen in our patient's liver and some of them were in the subcapsular region. We also saw echogenic material representing flukes in bile ducts and biliary duct wall thickening consistent with inflammation. These were the main diagnostic imaging clues for suspecting fascioliasis. On MRI, we observed focal lesions hypointense on T1-weighted images and hyperintense on T2-weighted images (Fig. 1) with peripheral contrast enhancement. Areas which were hypointense on T1-weighted images and hyperintense on T2-weighted images may correspond to necrosis and microabscess formation. Tract-like fashion locations of lesions from the subcapsular region to the central part of the liver was diagnostic for fascioliasis. Diagnosis of fascioliasis needs a high index of suspicion even in endemic countries and differential diagnosis should include viral hepatitis, liver abscess, hepatobiliary malignancies, brucellosis, ascariasis, clonorchiasis, other rare parasites and cholangitis due to acquired immunodeficiency syndrome (AIDS) (3).

Fig. 1. — Axial T2-weighted MRI shows hyperintense fasciola hepatica lesions (red arrow) located in the hepatic parenchyma as tract-like fashion from the liver capsule to the central part of the liver.

Although serologic confirmation is necessary, certain radiologic findings as described above are quite specific and helpful for making the diagnosis (4). Histopathologic confirmation by biopsy is not required but shows eosinophilic infiltration in fasciola lesions (2,4). In our case diagnosis was made based on radiological imaging and ERCP findings. Serologic tests for fasciola hepatica were not available in our hospital. After endoscopic removal and triclabendazole treatment, the symptoms of patient and radiologic findings regressed.

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