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A Co-Presentation of Biliary Ascariasis and Hepatic Hydatidosis

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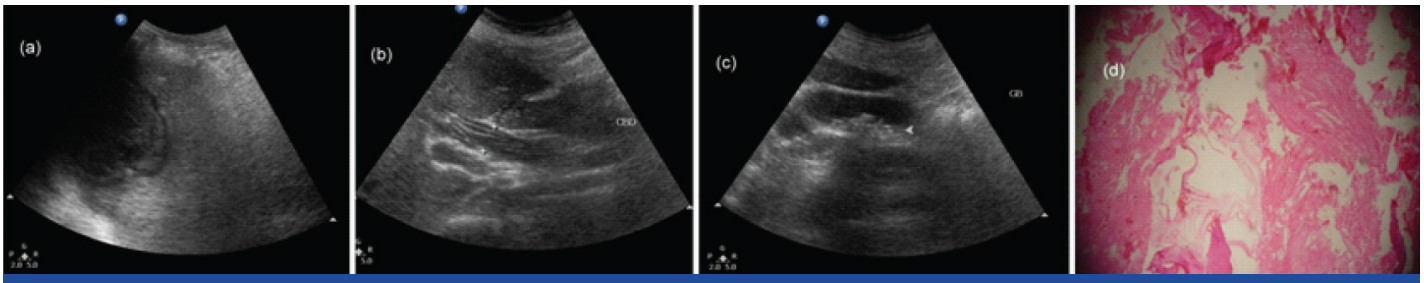
A 50-year-old lady came with the complaints of vague abdominal pain and jaundice since 2 months. On examination she was afebrile and she had mild tenderness in right upper quadrant of the abdomen. Her direct bilirubin was 2.5 mg/dl, white blood count was 11,800. Rest of the laboratory values were within normal limits. On Ultrasonography there was hepatomegaly, measuring 17 cm in cranio-caudal dimension. There was a hypoechoic lesion in the liver with peripheral hypoechoic halos in segment III of liver. There were internal hyperechoic irregular membranes inside the lesion without internal vascularity. These findings were highly suggestive of hydatid cyst of liver [Table/Fig-1a]. Common bile duct was dilated up to 1.4 cm and there were multiple tubular structures seen in the Common bile duct [Table/Fig-1b]. These were also reaching up to the gall bladder via cystic duct [Table/Fig-1c]. These tubular structures were suggestive of worms. This was highly unlikely for both pathologies to occur simultaneously in the same patient. ERCP was done to remove worms after a dose of anti-helminthic medications. The tubular parallel hyperechoic structures seen in the common bile duct were multiple Ascaris worms which were removed on ERCP. After that, pericystectomy was done to remove the hydatid cyst. Histo-pathological evaluation from the resected specimen shows 3 layers of hydatid cyst with scolices [Table/Fig-1d]. Possible co-infestations for other geo-helminths were found to be negative. Also, serologies for HIV and hepatitis virus were done which was negative. Patient was asymptomatic on routine follow up.

The distribution of hydatid cysts in human is upto 50 to 75% with the rest occurring in the lungs and arterial system [1]. Rupture of hydatid cyst in to the biliary duct is the most common complication which may result in blockage of the duct [2]. USG and CT are the modalities of choice in identifying rupture of the hydatid cyst [2]. Common presentation of biliary ascariasis includes biliary colic, obstructive jaundice, choledocholithiasis, acute cholecystitis and acute cholangitis [3]. Common presentation of biliary ascariasis includes biliary colic, obstructive jaundice, choledocholithiasis, acute cholecystitis and acute cholangitis. Abdominal ultrasonography is the modality of choice with typical imaging findings of long, linear, parallel echogenic strip, usually without acoustic shadowing in the common bile duct [3]. ERCP can be used as therapeutic method for removal of the worm where as in hydatid cyst a combination of surgical intervention and chemotherapy is the treatment of choice [3,4].

There have been reports of Echinococcus co-infection with HIV, Hepatitis C and B virus [5]. In a similar of way co-infection of ascaris with other geo-helminths like *Trichuris* and *Strongyloides* have been reported [6].

How immune response against one of the infection is mutually beneficial against the other infection is yet to be studied. Also co-infection can point out areas endemic to both the infection. Also, it is difficult to diagnose both of them due to common presentations. Abdominal USG is a very important investigation for biliary ascariasis and hepatic hydatidosis. However, hydatid disease may give variable appearance on USG but biliary ascariasis is typically diagnosed on USG as compared to CT. The implication of Ascaris co-infection is yet to be studied on other life threatening disease. Co-existent infections may also, under some circumstances, suppress disease symptoms in places where polyparasitism is a rule.



[Table/Fig-1a]: Abdominal ultrasound at right intercostal space shows a well-defined predominantly hypoechoic lesion with shaggy irregular outer walls in segment VIII of the liver. There is peripheral hypoechoic halo present around the lesion. There are few hyperechoic foci and loose membranes within the lesion.
[Table/Fig-1b]: Abdominal ultrasound at right subcostal space shows dilated common bile duct up to 1.4 cm and few compacted tubular parallel hyperechoic structures in it.
[Table/Fig-1c]: Abdominal ultrasound at right subcostal space shows distended gall bladder with curled up worms in the dependent part of the gall bladder.
[Table/Fig-1d]: Histo pathological evaluation from the resected specimen shows 3 layers of hydatid cyst with scolices.

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