Research Paper

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Dead Worm in Gall Bladder Mimicking Acute Cholecystitis – A Case Report

Medical Science

KEYWORDS : Gall bladder; Cholecystitis; Dead worm.

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ABSTRACT

Ascariasis is the most common helminthic infection is caused by ascaris lumbricoides. Usually the adult worm lives in the small intestine. Rarely it migrates through the papilla of vater and may enter the common bile duct. We are reporting a case of gall bladder ascariasis. Presence of Ascaris lumbricoides in gallbladder is rare entity as it is difficult to reach there due to narrow and tortuous cystic duct.

Introduction:

Ascariasis is the most frequent helminthic infection in humans (1). The causative organism is Ascaris lumbricoides which normally lives in the lumen of small intestine (1, 2). From the intestine, the worm can invade the bile duct or pancreatic duct but invasion into the gallbladder is quite rare because of the anatomical features of the cystic duct which is narrow and tortuous (3). We report a case of dead worm inside the lumen of gall bladder in a 80 year old female who presented with features of acute cholecystitis.

Case Report:

An 80 years female presented with pain in the right upper abdomen and epigastric region without jaundice for 6 days. History of nausea and vomiting was also present. Prior history of passage of worms in the stool was present. Abdominal examination revealed mild tenderness in the right hypochondrium.

Liver function test shows raised serum bilirubin (1.2mg %) and alkaline phosphatase (120IU/L). USG abdomen revealed dilated gallbladder without any evidence of cholecystitis with tubular echogenic non-shadowing image in the gallbladder lumen.

Diagnosis of gall bladder ascariasis was made. Patient was treated conservatively and albendazole (400mg) given once a week for three consecutive doses. Patient did not respond to the treatment and we went for open cholecystectomy under general anaesthesia where we found a black dead tubular structure which is dead ascaris. Patient was released after 6 days with no abdominal pain, normal LFT and abdominal USG.

Figure 1: Ultrasound showing round worm in gallbladder

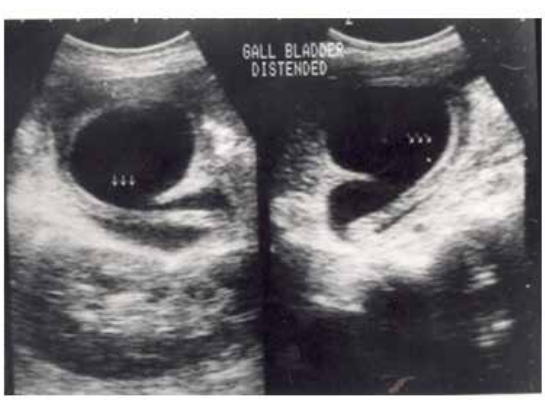

Figure 2: Dead worm inside gall bladder

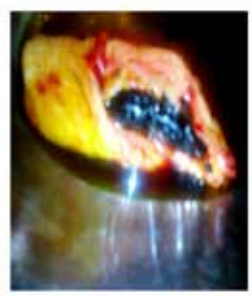

Figure 3: Black tubular structure of dead worm

Discussion:

Ascaris lumbricoides has a tendency to migrate through natural body orifices and enter Wirsung's duct and common bile duct through papilla of Vater (4). The female parasite is more prone to penetrate through the orifices particularly if the previous sphinterotomy or bilioenteric anastomosis was performed (5, 6). The biliary ascariasis is more common in female. Pregnant women may be more susceptible due to relaxant effect of hormones on the smooth muscle of the bile ducts (7, 8). The presentation of biliary ascariasis is similar to the cholelithiasis, acute cholecystitis, choledocholithiasis, acute pancreatitis and asending cholangitis (9, 10). The round worm may be present both in the CBD and gallbladder in the same patient at a time as in our case.

The ultrasound is diagnostic in biliary ascariasis. They present like linear echogenic image without acoustic shadow in the lumen of gallbladder and CBD (10, 12). The findings of erratic, non directional, zigzag movements are characteristic of live worm (11). The gallbladder may be normal or show signs of acute cholecystitis. Dilatation of biliary duct may be present if worm obstructs the CBD. The other method for the diagnosis of biliary ascariasis includes oral cholecystography, intravenous cholangiography and ERCP. All these test are not very diagnostic. Thus ultrasound is quite sensitive in the diagnosis and can also be used for follow up. The presence of ova in stool is not necessary as the infection may be caused by the male worm. The diagnosis is usually suspected if the patient belongs to the endemic area.

Though, infestation of the biliary tract by ascarides has been reported by many authors in the past, ascariasis of the gall bladder is comparatively a rare condition. Ochsner et al (13) believed that it occurred in patients with abnormal papillae of the common bile duct. Pre-operative diagnosis of ascariasis of gall bladder is rarely made with any great degree of certainty because it is a rare condition and symptoms do not differ in general from those of the common varieties of inflammation and obstruction. As suggested by Butt,(14)cholecystectomy is probably the operation of choice for ascariasis of the gall bladder.

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