

A RARE CASE REPORT OF GALLBLADDER ASCARIASIS

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ABSTRACT

Hepatobiliary ascariasis is found in subtropical or tropical countries and is prevalent geo-helminth infection. Ascariasis lumbricoides are found mainly in the small intestine. Rarely the worm may migrate to the pancreatic duct or common bile duct but rarely to the gallbladder due to cystic duct which is strait and tortuous. The gall bladder ascaris can cause obstructive features due to lithiasis or calcified worms. The management is usually conservative if the worm is alive or else it can be removed by surgery.

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INTRODUCTION

Ascariasis spreads by the contact with the infected soil or faeces. In developing countries ascariasis eggs can transmit due to poor sanitation or human faeces used as fertilizer or unwashed vegetables and fruits (1).

The organism *Ascariasis lumbricoides* in the gall bladder are rarely encountered due to the anatomy of the cystic duct. Ascariasis in the gall bladder can cause acalculous cholecystitis. They can be alive, dead, fragmented or calcified in the gallbladder (2).

This is the case of calcified biliary ascariasis of the gall bladder managed by the laparoscopic cholecystectomy.

HISTORY

A 45year old female presented to the department of surgery in ELMC&H with the complain of pain in abdomen which was intermittent. Vitals were normal as per age and had no pallor, icterus or lymphadenopathy. On examination there was no tenderness, no guarding, no rigidity. The murphy sign was negative. On investigation- total leukocytes count was 10,500/dl and liver function test was within normal limits.

Broad spectrum antibiotics and analgesics were started. Patient was symptomatically relieved and did not have any fresh complaint. Ultrasonography was done for the patient which revealed a dilated gall bladder with linear, long, an echogenic structure along the axis of the gallbladder [figure 1]. Contrast enhanced computed tomography (CECT) whole abdomen diagnostic image was performed which showed hyperdense linear structure in the lumen of gall bladder, possibility of calcified worm (figure 2).



Fig. 1: Ultrasound - showing Ascariasis in the Gall Bladder

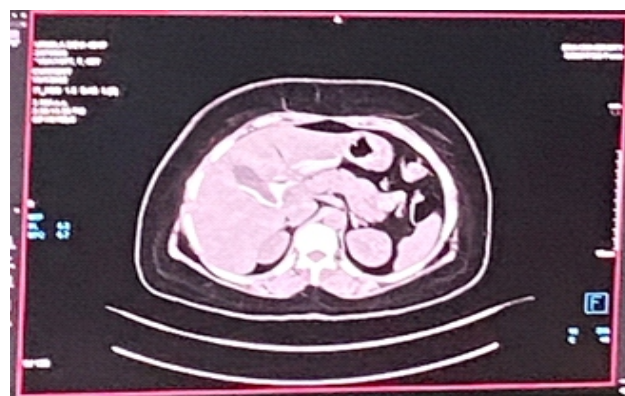


Fig. 2: CECT whole Abdomen- Linear structure in the Gall Bladder, calcified Worm

Laparoscopic cholecystectomy was planned for the patient. The patient recovered well, post operative uneventful and patient is doing well after 3 months of follow up.

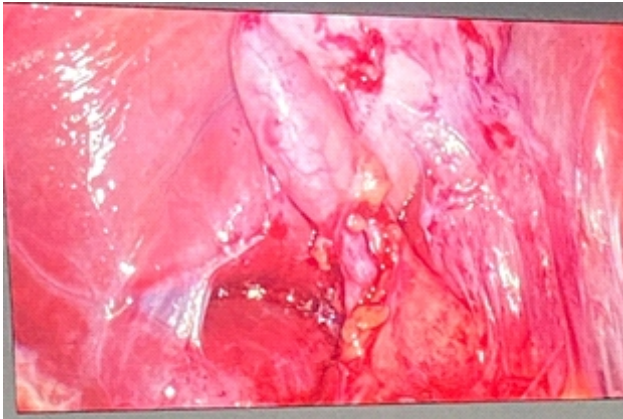


Fig. 4: Intraoperative photo of the Gallbladder

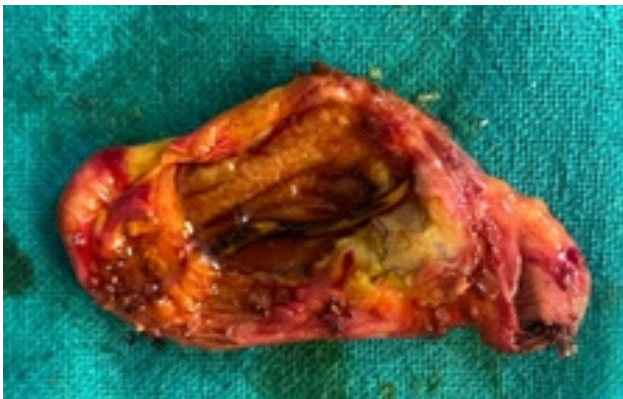


Fig. 5: Specimen: Ascaris Lumbricoides in the Gallbladder

Histopathology: Chronic cholecystitis

DISCUSSION

Ascariasis is one of the major diseases in the world found in the tropical and subtropical countries (3). It is transmitted by ingestion of faecal material containing eggs. It is mainly found in the jejunum but can migrate to various places like liver, heart, lungs and the biliary system. *Ascaris lumbricoides* can pass through body orifices and enter Wirsung's duct and common bile duct through papilla of Vater (4).

The symptoms of biliary ascariasis are like acute cholecystitis, cholelithiasis, obstructive jaundice due to distension of the gall bladder, oedema of the gallbladder wall or peri-cholecystic collection.

Gallbladder ascariasis is more common in pregnant women due to the smooth muscles relaxant of the bile ducts caused by the hormones (5).

The diagnosis of the worm in the biliary tract can be made through different imaging modalities. Ultrasonography plays a significant role and has high diagnostic accuracy with several appearances like (6).

- Inner tube sign- thick echogenic strip with a central anechoic tube in the gall bladder.
- Stripe sign- thin stripe with no shadow without an inner tube within gall bladder.

Biliary ascariasis can be treated conservatively with bowel rest, anthelmintics drugs and antispasmodic drugs. But conservative treatment fails if the worm is dead, presence of stricture which prevents the passage of worm or presence of adjacent stones. Hence, the surgical intervention is required.

CONCLUSION

Gall bladder ascaris in the endemic region should be among the differential diagnosis for the patients presenting with abdominal pain, anorexia, nausea with fever, jaundice, severe pain. It can be diagnosed with the help of the ultrasonography by peculiar movement of the organism. It should be treated conservatively but if not resolved surgical intervention must be done judiciously (7).

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