

## An Unusual Presentation of Biliary Ascariasis

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### Abstract

Ascariasis is one of the most common disease in human being worldwide. Ascariasis is 2nd to gall stone as a cause of biliary symptoms. The invasion of biliary tract by round worms during early post operative period is an infrequent but serious complication. We present 42 years old man operated for cholelithiasis with Choledocholithiasis on whom choledochotomy and T -Tube insertion was done. On 5th postoperative day Ascaris extruded peri-T-Tube and immediate T - Tube cholangiogram done that showed multiple filling defects in Common Bile Duct (CBD). Patient was managed with saline irrigation of CBD via T-Tube and anti-helminthic was given. In view of its rarity and unusual presentation the case is being reported.

### Key word

Biliary Ascariasis, T -Tube, Cholangiogram.

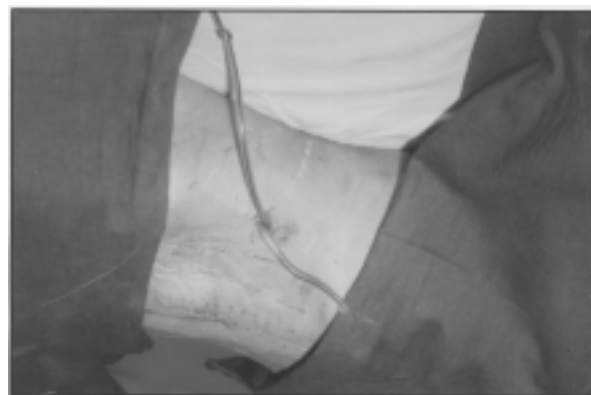
### Introduction

Ascariasis is one of the most common helminthic diseases in humans (1) occurring mostly in countries with low standards of public health and hygiene, thereby making ascariasis highly endemic in developing countries (2). In endemic areas 30% of adults and 60-70% of children harbour the adult worm (3). World wide ascariasis is second to gall stones as a cause of acute biliary symptoms (4). The invasion of biliary tract by round worms during early postoperative period is an infrequent but serious complication (5). We report an unusual presentation biliary ascasiasis detected in postoperative case of Choledocholithiasis where in T - Tube was in place.

### Case Report

A forty two years old man was admitted to our hospital as a case of cholelithiasis with choledocholithiasis. Laboratory values revealed predominatly conjugated hyperbilirubinemia with normal SGOT, SGPT and elevated alkaline phosphatase. USG showed numerous calculi in the gall bladder and dilated CBD with two large calculi. Open Cholecystectomy with CBD exploration for the clearance of ductal calculi followed by 'T' tube insertion was performed. Patients was progressing well when on

fifth day on removing dressing we found a large worm coming out along the side of 'T' tube, which was removed. 'T' tube cholangiogram was done which showed multiple filling defects in CBD. Patient was managed conservatively with saline irrigations and his CBD was clear after 72 hrs. After this anti-helminthics were given and the worms passed out with stools. 'T' tube was removed on 15th day after check T - Tube cholangiogram and patient was discharged.



**Fig. 1. Showing Peri 'T' Tube extrusion of round worm.**

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Fig. 2. 'T' Tube Cholangiogram showing filling defect (round worm) in CBD.

## Discussion

Extrusion of ascaris through 'T' tube tract in a patient operated for biliary tract stone disease in the postoperative course is an unusual finding. In this case we had no suspicion of ascariasis because he had no past history of intestinal, biliary or pulmonary symptoms ascribed to ascariasis. Even intraoperatively CBD was having no evidence of Ascariasis.

Ascaris is the largest intestinal nematode found in humans. It is widely distributed in tropical and subtropical regions where there is insufficient sanitation, hygiene and education regarding these parasites. It is transmitted by consumption of food contaminated with eggs of parasite, rarely transmission can occur via inhalation of eggs or swallowing of contaminated respiratory secretions. It has a complex life cycle, which is completed in intestines and lungs and finally the adult worms live in jejunum. They live for 10-24 months and produce 240,000 eggs per day by 2-3 months after initial infestation. Adult worms may grow upto 40 cm in length and live for two years (5). It may cause several clinical manifestations like intestinal colics, intestinal obstruction, larvae migrans and pulmonary symptoms. Biliary ascariasis is always secondary to intestinal ascariasis. Worm enters the bile duct in presence of heavy duodenal infestation. The worm moves first through ampulla of vater and part of worm may remain in duodenum (6). Worms tend to move out of biliary tract spontaneously in 24-36 hrs of inducing biliary and pancreatic symptoms. It mostly causes partial obstruction due to spasm of sphincter of oddie. It may lead to

cholangitis due to chemical irritation or super added bacterial infection, acalculus cholecystitis, empyema of GB and necrosis and perforation of CBD may occur (7). Diagnosis of ascaris migrating into biliary tract used to be difficult and usually made at laprotomy (8). Biliary colics with vomiting of worms are highly suggestive. Diagnosis is made by demonstration of ascaris ova in vomit or stools. USG and ERCP are helpful investigation tools in this era (9).

Classical treatment choice includes mebendazole, albendazole and pyrantal palmoate. A stool examination for ova and cysts should be repeated after 2 weeks of treatment to ensure eradication of helminth.

In Biliary ascariasis worms spontaneously return to duodenum and antihelminthic should be restricted till this time because if they are given, the worms die and are retained in biliary tract leading to complications. If conservative treatment fails or if the patient is acutely ill ERCP should be done early in postoperative period to retrieve the worms.

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