

Rare Presentation of Biliary Ascariasis

Ajaz Rather and Sajad Ahmad Salati

ABSTRACT

Ascariasis is the most common helminthic infection in the world. We present a very rare manifestation of ascariasis in which the worms came out through the T-tube tract of a 36 years old patient who had undergone cholecystectomy with choledocholithotomy.

Key words: Ascariasis. Cholangiogram. T-tube. Biliary tract.

INTRODUCTION

Ascariasis in general, and biliary ascariasis in particular, is common in the underdeveloped countries of the world. The worldwide prevalence of ascariasis is 25%.¹ In endemic areas 30% of adults and 60-70% of children harbor the adult worm.² In these endemic areas, ascariasis is a very important cause of pancreatobiliary diseases.³ Migration of worms through the T-tube tract is very rare presentation of biliary ascariasis as described in this case report.

CASE REPORT

A 36 years old male patient was electively admitted for cholecystectomy and as a case of cholelithiasis and choledocholithiasis. The patient had no other significant past surgical or medical history. Two weeks prior to admission, ERCP had been attempted but the common bile duct (CBD) could not be cannulated due to technical reasons and hence the decision to surgically explore the bile duct had been taken.

Baseline blood investigations including complete blood counts, coagulation profile and serum chemistry which were within normal limits except the alkaline phosphatase level which was raised. The patient was operated upon and open cholecystectomy with choledocholithotomy was done. T-tube was inserted into CBD for biliary drainage and choledochotomy closed over it. In the postoperative period, the patient developed surgical site infection necessitating the opening up of skin sutures to drain the purulent collection. On the 12th postoperative day, the T-tube was clamped overnight. The patient remained asymptomatic and a T-tube cholangiogram

was undertaken on 13th postoperative day which revealed a normal study without any filling defect in the CBD (Figure 1). On 14th postoperative day, the T-tube was removed but a live ascaris came out along with (Figure 2 and 3). This was followed by wandering out of another worm after 20 minutes of removal of T-tube. The patient was kept under observation for another 48 hours and patient did not develop any features suggestive of CBD obstruction. Ultrasound studies done twice at 24 hourly intervals revealed normal hepatobiliary system. The patient was discharged home after administration of 400 mg of Albendazole orally. The patient passed multiple worms with stools and the laparotomy wound healed by secondary intention. The patient was asymptomatic at 8 months follow-up.

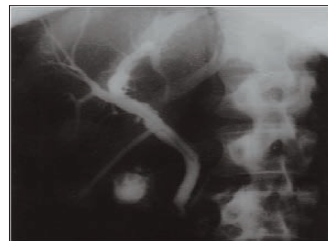


Figure 1: Normal cholangiogram study on 12th postoperative day.



Figure 2: T-tube with a live ascaris lumbricoides (round worm).



Figure 3: Ascaris wandering out after removal of T-tube.

Department of Surgery, Sheri Kashmir Institute of Medical Sciences, Srinagar, Kashmir, India.

Correspondence: Dr. Sajad Ahmad Salati, Department of Surgery, King Fahad Medical City, Riyadh, Saudi Arabia.
E-mail: docsajad@yahoo.co.in

Received August 12, 2009; accepted April 16, 2010.

DISCUSSION

Ascariasis is the most common helminthic infection in the world.^{1,4} It is widely distributed in the tropical and subtropical regions where it is perpetuated by insufficient sanitation, hygiene and education regarding these parasites.⁵ In Indian side of Kashmir valley, the incidence of ascariasis was observed to be 85.1% of all parasitic infections.³ It is transmitted by consumption of food contaminated with eggs of parasite, though rarely transmission can occur via inhalation of eggs or swallowing of contaminated respiratory secretions.⁶ Migration of worms into bile duct with ensuing complications is not uncommon in ascariasis.⁶⁻⁸

However, in this case, the presentation of ascariasis is very rare as after just 24 hours of cholangiographic demonstration of a normal common bile duct, worms wandered out along the T-tube tract. There were two case reports from India where worms came out in similar manner. In one case, the worms had wandered out while the T-tube was in place⁷ and in the other,⁹ the worms had come out after the removal of T-tube as in this patient. In situations like these, if there are no residual worms in CBD then only deworming with antihelminthic is required. If however, the worms are retained back, then in asymptomatic cases, watchful observation is recommended till the worms spontaneously migrate back into the lumen of gut. This is followed by deworming, as if antihelminthic is administered while the worms are still retained in biliary tract, then the worms will die in biliary ducts and lead to complications.⁷ In

symptomatic cases, the worms can however, be retrieved endoscopically on emergency basis.¹⁰

REFERENCES

1. Bethony J, Brooker S, Albonico M, Geiger SM, Loukas A, Diemert D, *et al.* Soil-transmitted helminth infections: ascariasis, trichuriasis, and hookworm. *Lancet* 2006; **367**:1521-32. Comment in: *Lancet* 2006; **368**:283-4.
2. Khuroo MS, Mahajan R, Zargar SA, Javid G, Sapru S. Prevalence of biliary tract diseases in India. A sonographic study in adult population in Kashmir. *Gut* 1989; **30**:201-5.
3. Khuroo MS, Zargar SA. Biliary ascariasis: a common cause of biliary and pancreatic disease in an endemic area. *Gastroenterology* 1985; **88**:418-23.
4. Pfefferman R. Ascariasis of biliary system. *Arch Surg* 1972; **195**:118.
5. Hosain GM, Saha S, Begum A. Impact of sanitation and health education on intestinal parasite infection among primary school aged children of Sherpur, Bangladesh. *Trop Doct* 2003; **33**:139-43.
6. Mandell GL, Bennett JE, Dolin R, editors, Mandell, Douglas, and Bennett's principles and practice of infectious diseases. Philadelphia: *Churchill Livingstone*; 2000.
7. Khan AB, Bhasin SK, Bhagat RK, Chrunghoo RK. An unusual presentation of biliary ascariasis. *JK Science* 2007; **9**:35-6.
8. Sanai FM, Al-Karawi MA. Biliary ascariasis: report of a complicated case and literature review. *Saudi J Gastroenterol* 2007; **13**:25-32.
9. Rana SS, Bhasin DK, Nanda M, Singh K. Parasitic infestations of the biliary tract. *Curr Gastroenterol Rep* 2007; **9**:156-64.
10. Misra SP, Dwivedi M. Endoscopy-assisted emergency treatment of gastroduodenal and pancreatobiliary ascariasis. *Endoscopy* 1996; **28**:629-32. Comment in: *Endoscopy* 1998; **30**:316.

.....★.....