

Biliary ascariasis in a bile duct stones-removed female patient

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Abstract

Biliary ascariasis is a common problem in rural areas in China. The common presentations include biliary colic, acute cholangitis, obstructive jaundice, choledocholithiasis and acute cholecystitis. Here, we describe a case with biliary ascariasis two days after endoscopic sphincterotomy for choledocholithiasis. A living ascaris was successfully removed by endoscopic retrograde cholangiopancreatography. This case indicated that biliary ascariasis is not an uncommon complication of endoscopic sphincterotomy in some regions where ascariasis is epidemic.

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Key words: Biliary ascariasis; Endoscopic retrograde Cholangiopancreatography; Endoscopy; Choledocholithiasis

Core tip: Biliary ascariasis is a common problem in rural areas in China. The common presentations include

biliary colic, acute cholangitis, obstructive jaundice, choledocholithiasis and acute cholecystitis. Here, we describe a case with biliary ascariasis two days after endoscopic sphincterotomy for choledocholithiasis. A living ascaris was successfully removed by endoscopic retrograde cholangiopancreatography. This case indicated that biliary ascariasis is not an uncommon complication of endoscopic sphincterotomy in some regions where ascariasis is epidemic.

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INTRODUCTION

Biliary ascariasis is a common problem in rural areas in China, especially in the Northwest region. Common presentations include biliary colic, acute cholangitis, obstructive jaundice, choledocholithiasis and acute cholecystitis^[1]. In this report we describe a case with biliary ascariasis after endoscopic sphincterotomy for choledocholithiasis.

CASE REPORT

An 18-year-old Chinese woman presented with complaints of abdominal pain, fever and jaundice. Magnetic resonance cholangiopancreatography (MRCP) showed multiple common bile duct (CBD) stones (Figure 1). Routine endoscopic retrograde cholangiopancreatography (ERCP) and endoscopic sphincterotomy were performed and several CBD stones were retrieved successfully. The recovery was uneventful until the onset of progressively intolerable abdominal pain two days later. Abdominal ultrasonography revealed a dilated common bile duct (10 mm) with an ill-defined linear echogenic shadow inside

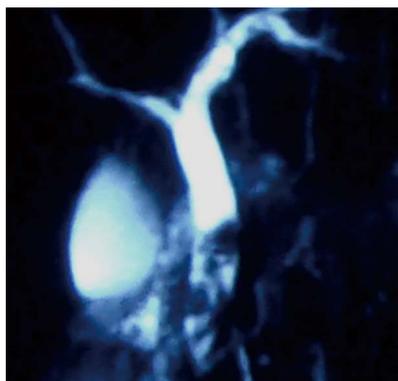


Figure 1 Magnetic resonance cholangiopancreatography showing multiple common bile duct stones.

(Figure 2). The gallbladder was normal. Biliary ascariasis was suspected and ERCP was repeated. The head of a worm was at the sphincterotomy-performed papilla (Figure 3). One living ascaris of about 25 cm in length was removed using a dormia basket (Figure 4).

DISCUSSION

Endoscopic sphincterotomy is the treatment of choice for patients with choledocholithiasis. Its main complications include bleeding, pancreatitis, perforation and infection^[2]. Biliary ascariasis, one of contributing factors of biliary stones, does not figure in the list. However, biliary ascariasis is a common complication of endoscopic sphincterotomy in some regions where ascariasis is epidemic. For example, Gupta *et al*^[3] reported four cases of biliary ascariasis among 273 cases with post-endoscopic sphincterotomy for choledocholithiasis in Kashmir, India. Biliary ascariasis occurred only two days after sphincterotomy in the present study, which contrasts with the interval period of 2-24 wk in Gupta's report^[3].

Abdominal ultrasonography can facilitate the diagnosis of biliary ascariasis in most of cases. The characteristic sonographic feature of worms in the common bile duct is a long, linear, parallel echogenic strip, usually without acoustic shadowing^[4]. ERCP, considered the gold standard for the diagnosis of biliary ascariasis, should be reserved for therapeutic rather than diagnostic use, because papillotomy may lead to reentry of the worm into the common bile duct^[5]. In addition, sphincterotomy is not recommended unless a basket cannot be introduced inside the common bile duct to hold the ascaris^[6]. Dead ascaris and stones in the same patients have been reported to be pulled out simultaneously through the CBD^[6]. In this patient, CBD stones were removed successfully by the first ERCP and no signs of either living or dead biliary ascaris were found. The living ascaris found by the second ERCP was thought to have resulted from the entry of the worm into the common bile duct through the open papilla; therefore, anthelmintics were used to prevent reentry of any other ascaris residing in the small bowel. Six months of follow-up were uneventful.



Figure 2 Abdominal ultrasonography revealed a dilated common bile duct with an ill-defined linear echogenic shadow inside (arrow). CBD: Common bile duct.



Figure 3 The head of a worm observed in the sphincterotomy-performed papilla.

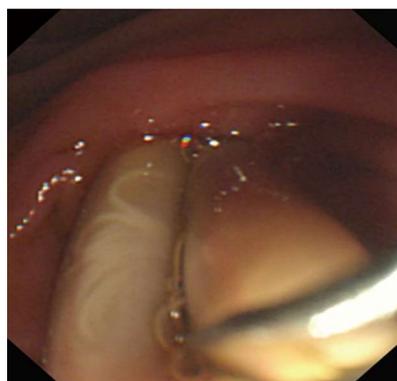


Figure 4 A living ascaris of about 25 cm in length was removed using a dormia basket.

Previously, Zargar *et al*^[7] described the endoscopic management of postoperative biliary ascariasis in 19 consecutive patients who underwent cholecystectomy and choledocholithotomy. ERCP was performed 4 to 16 d after biliary tract surgery and roundworms in the CBD were extracted from 10 patients, from the hepatic ducts of patients, or from both ducts in seven patients. Taken together, we suggest that endoscopic management is an effective and safe approach for extracting ascarids from

the biliary tree of postoperative patients.

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