

A case of live round worm in common bile duct stent of a post - endoscopic retrograde cholangiopancreatogram patient

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Abstract

Roundworm infestation is common in the human intestine. Sometimes it also enters the biliary system and may cause acute cholangitis, obstructive jaundice, stone formation, acute biliary colic and cholecystitis. Rarely, ascariasis of common bile duct (CBD) can result after endoscopic retrograde cholangiopancreatogram (ERCP) done for CBD stone extraction. We present one such unusual case of roundworm in CBD stent in the post-ERCP period.

Key words: Biliary ascariasis, common bile duct stent, common bile duct, endoscopic retrograde cholangiopancreatogram, roundworm

Received: 6th June, 2015; Revised: 18th June, 2015; Accepted: 22nd June, 2015

INTRODUCTION

The biliary tract is an uncommon site for infestation by roundworms. Climate and soil conditions are very important for the growth of roundworms. Due to the favorable climate, worm infestation is highly prevalent in Northern part of India.^[1-3] In this report, we present one unusual case of roundworm in the common bile duct (CBD) stent of a post endoscopic retrograde cholangiopancreatogram (ERCP) patient. This post-ERCP case presented with features of acute cholangitis and was diagnosed while doing the endoscopic removal of CBD stent to relieve cholangitis. Living roundworm was seen protruding out of papilla and was removed by the endoscopic procedure. It is highlighted that the sphincterotomy done during CBD stone removal has made it easy for the intestinal parasites to enter into the CBD.

CASE REPORT

A middle aged female patient with gall stone and CBD stones was undertaken for ERCP removal of CBD stones. Seventeen small stones of 2–4 mm size were removed, and CBD stent was kept. Next day laparoscopic cholecystectomy was done. The patient was sent home with advice to come for CBD stent removal after 4 weeks. In the third week after surgery, she came back with severe pain epigastrium and vomiting. Total leukocyte count was 16,000/cumm, polymorphs were 91%. Liver function tests and serum amylase were normal. On ultrasonography examination, CBD was mildly dilated (7 mm) and it revealed stent in CBD along with few echogenic shadows. Under antibiotic coverage repeat ERCP was planned to remove CBD stent and any other stones or sludge from CBD. On endoscopic visualization, a living roundworm was seen protruding out of the papilla alongside the CBD stent. Twenty nine cm long live worm was pulled out with the help of endoscopic forceps [Video 1]. CBD stent was also removed. Subsequently, the patient was given albendazole 400 mg daily for 5 days and the need to observe food and water hygiene was stressed. The post operative period was eventless.

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DOI:
10.4103/2348-8093.161554

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DISCUSSION

In biliary stone, prior sphincterotomy has been attributed as the major cause for biliary ascariasis.^[4,5] In our case report, the patient had prior endoscopic sphincterotomy. Thus, sphincter ablation emerges as the most important cause for the migration of the worms into the biliary tree. The presenting symptom of biliary ascariasis is pain upper abdomen, and its incidence is about 60–90% patients across various studies. The pain mimick pancreatic pain, that is, acute upper abdominal pain radiating to the back. The serum amylase may be normal thus excluding pancreatitis as the cause of pain. The other presenting features, in this case, suggested acute cholangitis.

Our patient did not show any biochemical evidence of biliary obstruction. This was because our patient had prior sphincterotomy that did not allow the complete obstruction to occur. There was no complete obstruction of CBD due to the movement of a live worm in and out of the CBD.^[1,4,6] Ultrasound examination of the abdomen may reveal CBD dilation with linear echogenic shadows in CBD and may be able to give a suggestion of biliary ascariasis. Endoscopic assessment (duodenoscopy) and cholangiogram gives ample suggestion of a worm in the biliary tree. In the present case on endoscopy, a live worm projecting out of the papilla [Figure 1] offered a definitive confirmation of the diagnosis. However in cases with positive ultrasound findings suggesting partial biliary obstruction but lack of a filling defect in the cholangiogram the diagnosis may be clinched by the presence of a live worm in the vicinity of papilla since they are known to move back and forth in the CBD.^[7,8] When facilities are available, endoscopic confirmation and extraction of the worms appear to be a better alternative and gives prompt relief (as in our case). Endoscopic extraction is successful in the majority of patients with biliary ascariasis.^[1,4-6,8]

Biliary ascariasis, being frequent in the endemic area, should be considered as one of the preferential diagnosis of acute pain upper abdomen. Roundworm in CBD is common in patients who have undergone prior biliary sphincter ablation/bypass procedures like sphincterotomy or choledochoduodenostomy. Pain and vomiting could be the only presenting feature and is often out of proportion to the abdominal signs. Ultrasound is a reliable screening test for diagnosis and ERCP provides confirmation. Endoscopic extraction of the worm is



Figure 1: A 29 cm long live round worm in the CBD stent of a post endoscopic retrograde cholangiopancreatogram patient

frequently successful. Anthelmintics should be given to such patients to eradicate worms from the intestine and to avoid recurrence. Need to observe food and water hygiene has to be stressed.

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How to cite this article: Chowdhary K, Goyal S, Singh M, Garg N. A case of live round worm in common bile duct stent of a post - endoscopic retrograde cholangiopancreatogram patient. *Int J Clin Exp Physiol* 2015;2:137-8.

Source of Support: Nil, **Conflict of Interest:** None declared.