

## Biliary Ascariasis with neither Cholangitis nor Obstructive Jaundice

Dioscoridi L\*, Pugliese F, Forti E, Manta R, Sica M and Mutignani M

O. U. Interventional Digestive Endoscopy, Niguarda Hospital Ca'Granda, Milano

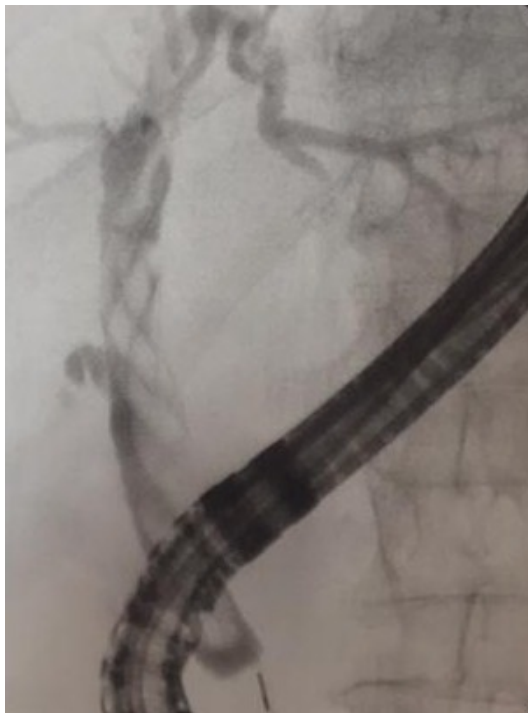
\*Corresponding author: Dioscoridi L, O. U. Interventional Digestive Endoscopy, Niguarda Hospital Ca'Granda, Milano, Italy, Tel: 00393334950733; Fax: 00393334950733; E-mail: [dioscoridi.lorenzo@virgilio.it](mailto:dioscoridi.lorenzo@virgilio.it)

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### Case Report

A 81-year-old woman with mild right upper quadrant abdominal pain was referred to our Digestive Endoscopy Unit for the suspect of biliary parasitosis. Clinical examination showed only mild right upper abdominal pain. Laboratory data evidenced a hypereosinophilia. Reiterative serology and stool analysis were negative for helminthic ova.



**Figure 1:** CT scan showing the helminthic form in the biliary duct.

Abdominal US described a dilation of the left intrahepatic biliary tree and mild dilation of the main biliary duct (7 mm) with the presence of a tubuliform structure inside of about 5 mm. The CT scan confirmed the presence of a tubular structure inside of the choledocus till the left hepatic duct. A magnetic resonance cholangiopancreatography (MRCP) stated the suspect of biliary parasitosis. Thus, we performed ERCP (endoscopic retrograde cholangiopancreatography). The major papilla's orifice was enlarged. The cholangiography showed an unusual, braid-like defect in the main biliary duct (Figure 1).

After the sphincterotomy, we pull out the foreign body through the papilla with Dormia's cage (video). An about 20 cm-long worm was extracted (Figure 2).



**Figure 2:** Image of the ascaris worm extracted through sphincterotomy.

The parasitological analysis made diagnosis of *Ascaris lumbricoides*. The patient was asymptomatic at 6 months follow-up with all cholestatic enzymes and abdominal US in the normal range.

Although ascariasis is quite diffuse in Eastern countries and in developing ones, this pathology is uncommon especially in Europe. The majority of the literature about this parasitosis comes from those countries.

Biliary parasitosis is rare in Western countries but it must be kept in mind as rare cause of obstructive jaundice [1-3]. Imaging is generally not specific [1,4,5]. Laboratory tests (including serology and stools analysis), instead, are useful and specific [5]. ERCP is both diagnostic and therapeutical and generally let to reach a certain diagnosis [1,5]. The unusual features of the present case are the absence of ova in the stools and the biliary involvement alone may be due to a long lasting infestation with mild general (especially respiratory) symptoms. The described features of the present case are rarely reported also in the Eastern countries: generally, intestinal involvement associated with ova in the stools is the most frequent presentation [6]. Moreover, if a biliary infestation is present, biliary colic or cholangitis often with biliary stones are described [6,7]. However, in our case, the patient has only a vague abdominal pain [8]. The lack of experience in ultrasonographic specific signs [9] has to be considered but the diagnosis was made by MRCP.

From all these considerations and other case reports, we can help our colleagues to recognize some unique features of ascariasis in Western countries.

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