



## ENDOSCOPIC SNAPSHOT

# Obstructive Jaundice Due to Foreign Body in the Bile Duct: An Unusual Finding



## Icterícia Obstrutiva Devido a Corpo Estranho na Via Biliar: Um Achado Incomum

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### PALAVRAS-CHAVE

Via Biliar;  
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## 1. Introduction

The obstruction of the common bile duct (CBD) by foreign body, followed by lithogenesis at that level, is uncommon and has been rarely referred in the literature. Sporadic reports have been published due to parasites, fish bones, fragments of T tubes or other rubber objects, shrapnel, metal clips, migrated stents, surgical gauze and

non-absorbable suture material, which serve as a nucleus for formation of stones or molds in the bile duct.<sup>1–5</sup>

The previous reported cases with impacted surgical gauze in CBD had classical presentation of obstructive jaundice with radiological inconclusive investigations mimicking a common bile duct stone or malignant disease of the CBD.<sup>2–4</sup>

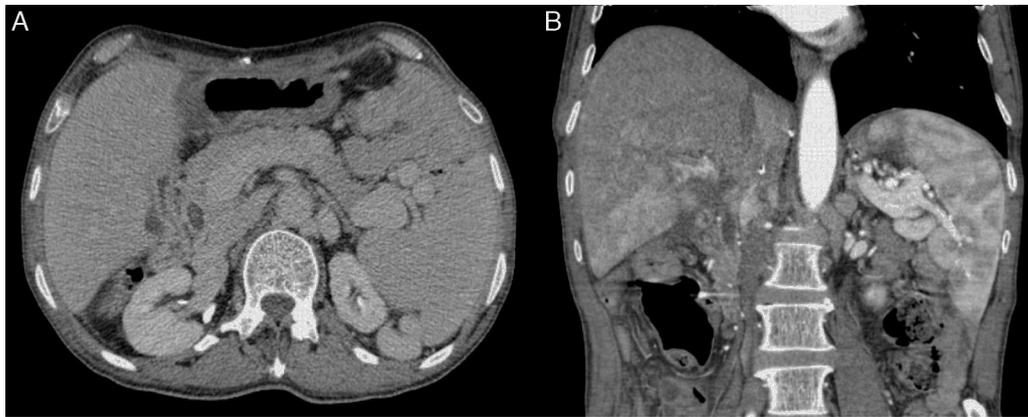
Endoscopic and surgical extraction of these bodies is mandatory, in order to avoid the complications of obstructive jaundice especially cholangitis and biliary sepsis.<sup>4,5</sup>

## 2. Case description

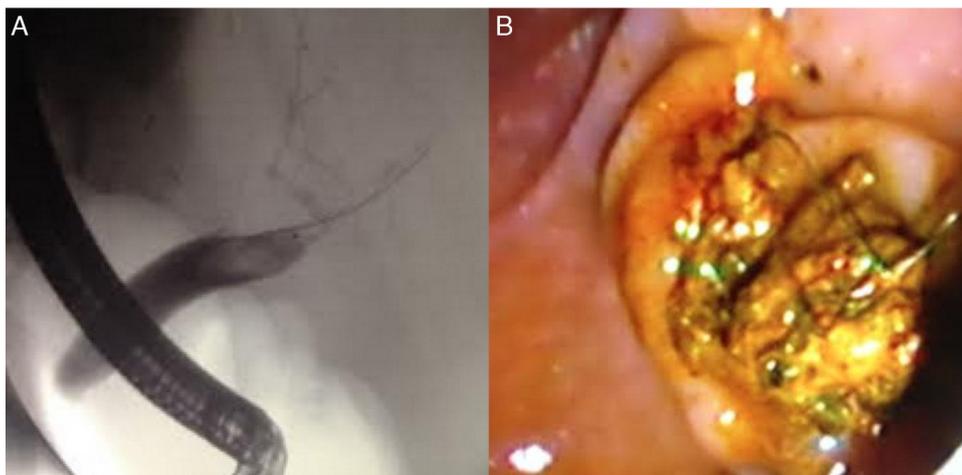
A 69 year-old man, with a medical history of liver transplant in 2002 from liver cirrhosis due to hepatitis C, underwent liver retransplantation in 2014 by acquired familial amyloid polyneuropathy. Three months after the surgery the patient had progressive deterioration of the analytical hepatic enzymes with cholestasis (gamma glutamyl transpeptidase 1147 U/L (<55); alkaline phosphatase 926 U/L (40–150); total bilirubin 2.3 mg/dL (0.3–1.2); direct bilirubin 1.7 mg/dL (0.1–0.5); aspartate aminotransferase 58 U/L (<35); alanine aminotransferase 56 U/L (<45)), without fever, abdominal pain or increased inflammatory parameters. Ultrasonography of the abdomen showed moderate dilatation of the main bile duct (12 mm) and could not define the cause of obstruction. Computed tomography was performed and revealed dilatation of the CBD (13 mm) with

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**Figure 1** Computed tomography of the patient showing dilatation of CBD with a dense heterogeneous material suggestive of a calculus.



**Figure 2** Endoscopic retrograde cholangiopancreatography showed a native CBD dilatation with an intracoledocal filling defect of 30 mm (A). After sphincterotomy and with help of Dormia basket it was possible to extract several small stones and an elongate biliary mold (B).

a dense heterogeneous material inside in probable relationship to choledocholithiasis (Fig. 1). Endoscopic retrograde cholangiopancreatography showed an intracoledocal filling defect of 30 mm (Fig. 2A). After sphincterotomy and with help of Dormia basket it was possible to extract an elongate 3 cm in length biliary mold (Fig. 2B) whose macroscopic

analysis showed the presence of compress fragments (Fig. 3). At discharge and several weeks later the repeated laboratory analysis revealed normalized liver function tests.

The authors emphasize that bile duct obstruction by a foreign body is possible and can cause difficulties in diagnosis. It is therefore important to remember, when facing images suggesting giant stones, that the CBD may be obstructed by foreign body, especially in those patients who have previously undergone surgery.

### Ethical disclosures

**Confidentiality of data.** The authors declare that they have followed the protocols of their work center on the publication of patient data

**Right to privacy and informed consent.** The authors declare that no patient data appear in this article.

**Protection of human and animal subjects.** The authors declare that the procedures followed were in accordance with the regulations of the relevant clinical research ethics



**Figure 3** Gross examination of the retrieved foreign body revealed surgical gauze with multiple biliary stones adherent to it, measuring slightly more than 3 cm.

committee and with those of the Code of Ethics of the World Medical Association (Declaration of Helsinki).

### Conflicts of interest

The authors have no conflicts of interest to declare.

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