Single-operator cholangioscopy for the diagnosis of bile duct lymphoma: a case report and brief review of the literature

Locally advanced mucosa-associated lymphoid tissue (MALT) causing obstructive jaundice due to involvement of the common bile duct (CBD) is a particularly rare condition. In the literature there are only 24 case reports of primary CBD lymphoma. To our knowledge there are no case reports of recurrent locally advanced MALT presenting as biliary obstruction and diagnosed with single-operator cholangioscopy.

A 67-year-old man with a medical history of Crohn’s disease, duodenal MALT treated with chemotherapy, and prostate and bladder cancers, was admitted to the hospital with new-onset jaundice. Liver tests showed a total bilirubin concentration of 25.6 μmol/L, direct bilirubin 20.5 μmol/L, alkaline phosphatase 414 U/L, aspartate aminotransferase 103 U/L, and alanine aminotransferase 9U/L. Magnetic resonance imaging of the abdomen showed moderate to severe intra- and extrahepatic biliary dilation and an obstructing mass at the level of the mid to distal CBD. The mass appeared to be encasing the CBD. Endoscopic retrograde cholangiopancreatography (ERCP) was performed. The cholangiogram revealed a mid-CBD stricture with a round filling defect causing obstruction and proximal biliary dilatation (Fig. 1 and Fig. 2). For better assessment of the stricture and the filling defect, a SpyGlass probe (Boston Scientific, Natick, Massachusetts, USA) was introduced (Fig. 3), revealing a round, nodular mass in the middle of the bile duct, with associated luminal reduction, ulceration, and increased vascularity (Video 1). Biopsies were obtained (Spy-Bite; Boston Scientific) and a fully covered metal biliary stent was placed with excellent drainage. Histopathology revealed lymphoid proliferation infiltrating the mucosa with immunohistochemistry stains compatible with MALT (Fig. 5).

The biliary obstruction with secondary jaundice resolved after the placement of the metal stent and the patient is currently receiving chemoradiation. Lymphoma involving the bile duct is rare and is commonly a manifestation of advanced disease [1]. Biliary obstruction caused by lymphoma occurs in only 1%–2% of all malignant strictures [2]. Obstructive jaundice, weight loss, abdominal pain, and fever are the most common symptoms upon presentation [3]. At the time of diagnosis, low-grade MALT lymphomas usually are localized and curable with local therapy [4]. Lymphoma involving the
bile duct is very difficult to diagnose pre-operatively [5]. As exemplified by our case, single-operator cholangioscopy can be used to diagnose biliary lymphoma at the time of therapeutic ERCP.

Competing interests: None

M. Torrealba1, M. Berzosa2, I. Raijman3

1 CIMA Hospital, Medicine San Jose, Costa Rica
2 Baylor College of Medicine, Gastroenterology and Hepatology, Houston, Texas, United States
3 Digestive Associates of Houston, Gastroenterology, Houston, Texas, United States

References

Fig. 5 Immunohistochemistry stains from single-operator cholangioscopic biopsies consistent with B-cell lymphoma.