Biliary tract intraductal papillary mucinous neoplasm: single-operator cholangioscopy and clearance of mucin obstruction

A 49-year-old man presented with obstructive jaundice (serum bilirubin 15mg/dL) and abdominal pain. Contrast computed tomography showed focal dilatation of bile ducts in segments IV and VIII and dilatation of the common bile duct, with no stones or adenopathy (Fig. 1a, Fig. 1b). Endoscopic retrograde cholangiopancreatography (ERCP) detected amorphous filling defects of the common bile duct with poor opacification of the intrahepatic ducts, especially at the right side (Fig. 2a, Fig. 2b). As a mucin clot was obstructing bile flow, a 5-minute wash with mucolytic agent (n-acetyl cysteine) through an inflated extractor balloon (Video 1) was done to improve clearance. Single-operator cholangioscopy (SpyGlass; Boston Scientific, Natick, Massachusetts, USA) was performed to evaluate the extent and involvement of the tumor growth within the bile duct as well as to provide direct-view biopsies (Fig. 3). A protruded, friable 8-mm lesion, located in the right intrahepatic duct, was biopsied and histopathological examination revealed a mucinous papillary neoplasm without dysplasia (Fig. 4a, Fig. 4b). The patient recovered without adverse events, his serum bilirubin levels decreased to 2 mg/dL, and a surgical resection was planned.

BT-IPMN is a rare variant of bile duct tumor, with malignancy varying on several reports to as high as 64%–89% [1,3,4]. Clinical presentations include abdominal pain, jaundice, and acute cholangitis. Peroral cholangioscopy can assess the spread of the tumor and allows histological confirmation, providing better information for surgical planning [5]. We undertook a novel approach of mucin removal by injection of a mucolytic agent, thus improving biliary clearance before surgery.

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Tomazo Franzini¹, Renata Nobre Moura¹, Silvia L. Alves de Lima¹, Gustavo Rodela¹, Frederico Ribeiro Teixeira Jr², Humberto Kishi³, Eduardo Guimarães Hourneax de Moura¹

¹ Endoscopy Unit, Department of Gastroenterology, University of Sao Paulo Medical School, Brazil
² Department of General Surgery, University of Sao Paulo Medical School, Brazil
³ Department of Pathology, University of Sao Paulo Medical School, Brazil

References


Fig. 4 a, b Histopathological appearances of a mucinous papillary neoplasm.