Endoscopic ultrasound evaluation of portal cavernoma cholangiopathy and endoscopic management of choledochal variceal rupture during ERCP

Portal cavernoma cholangiopathy (PCC) is characterized by pathological alterations in the biliary system in patients with extrahepatic portal vein obstruction and portal cavernoma [1]. Choledocholithiasis, found in 17% of these patients, is attributed to biliary stasis related to PCC [2]. The biliary alterations in PCC consist of reversible components, caused by extrinsic compression and varices formation, and fixed components, due to fibrosis secondary to ischemic-inflammatory damage from chronic portal vein thrombosis and portal cavernoma [3, 4]. This case demonstrates the diagnostic utility of endoscopic ultrasound (EUS) in PCC, the endoscopic treatment of stenosis and choledocholithiasis, and the management of hemobilia resulting from biliary varices rupture (Video 1).

An asymptomatic 60-year-old man with noncirrhotic chronic portal vein throm-
bosis associated with controlled human immunodeficiency virus infection was referred due to alteration of liver function tests. An abdominal ultrasound showed lithiasis of the common bile duct (CBD). EUS confirmed the presence of collateral vessels (▶Fig. 1), gallstones in the CBD (▶Fig. 2), and CBD stenosis consistent with PCC. Endoscopic retrograde cholangiopancreatography (ERCP) was performed for gallstone extraction and stenosis evaluation. Sphincterotomy was uneventful, but balloon sweeping caused significant hemobilia due to CBD varices rupture (▶Fig. 3a), which was successfully managed with placement of a fully covered self-expandable metal stent (FC-SEMS) (▶Fig. 3b).

Portal vein recanalization associated with transjugular intrahepatic portosystemic shunt was performed to complete PCC treatment. Six months after the CBD varices rupture, the previously placed biliary stent was removed during another ERCP, and biliary duct clearance was confirmed, with no active bleeding (▶Fig. 4). The patient’s condition improved, with preserved liver function and no recurrent bleeding.

This case demonstrates the value of EUS in evaluating PCC and its associated complications. It also highlights a rare complication during ERCP and the efficacy of therapeutic interventions employed. Multidisciplinary collaboration among gastroenterologists, hepatologists, and interventional radiologists is crucial for optimizing outcomes in complex PCC cases. These findings contribute to clinical decision making, patient management strategies, and future research in PCC and its associated complications.

Endoscopy_UCTN_Code_CPL_1AK_2AF

Conflict of Interest

A. Poujol-Robert is a consultant for Biotest. R. Leenhardt is cofounder and shareholder of Augmented Endoscopy, and has given a lecture for Abbvie. M. Camus is a consultant for Cook Medical, Ambu, and Medtronic. X. Dray is a founder and shareholder of Augmented Endoscopy, has acted as a consultant for Boston Scientific and Norgine, and has given lectures for Fujifilm, Medtronic, MSD, and Pentax. U. Chaput is a consultant for Boston Scientific. A. P. S. T. Kotinda, A. Payancé, and R. Leenhardt declare that they have no conflict of interest.

The authors

Ana Paula Samy Tanaka Kotinda1,2✉, Armelle Poujol-Robert3, Audrey Payance4, Romain Leenhardt1, Marine Camus Duboc5, Xavier Dray1, Ulrike Chaput1

1 Centre for Digestive Endoscopy, Sorbonne University, Saint-Antoine Hospital, APHP, Paris, France
2 Gastrointestinal Endoscopy Unit – Gastroenterology Department, Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil
3 Department of Hepatology, AP-HP, Hôpital Saint-Antoine, UPMC University, Paris, France
4 Service d’hépato-gastroentérologie, Hôpital Beaujon, Clichy, France

Corresponding author

Ana Paula Samy Tanaka Kotinda, MD
Centre for Digestive Endoscopy Sorbonne University, Saint-Antoine Hospital, APHP, rue du Faubourg 184, F-75012 Paris, France
anapaulakotinda@outlook.com

References


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Endoscopy 2024; 56: E39–E40
DOI 10.1055/a-2224-3563
ISSN 0013-726X
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Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

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