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LETTER TO THE EDITOR

Billiary casts in post-COVID-19 cholangiopathy☆

Cilindros biliares en la colangiopatía post-COVID-19

Dear Editor,

We have read with great interest the scientific letter of Vega et al.,[1] which describes six cases of the novel clinical entity named post-COVID 19 cholangiopathy. This is the name given to the secondary sclerosing cholangitis following a severe COVID-19 infection,[2] as per first reported in two seminal papers comprised of 15 cases published in 2021 in the American Journal of Gastroenterology.[3,4] We have also published a case of this clinical entity in Portuguese in the beginning of 2021.[5] With the Gamma variant in Southern Brazil, which has hit hard our population and became a major health crisis,[6] we have been managing many cases of post-COVID 19 cholangiopathy from 2020 to 2022.

One case that left a mark in our service was of a male patient, 50-years-old, admitted to the hospital because of severe COVID-19 infection, requiring prolonged mechanical ventilation, hemodialysis and long-term sedation with ketamine, fentanyl, midazolam, propofol and atracurium. He received a 8-week course of meropenem, polymyxin B and amikacin for infective endocarditis and muscle and liver abscesses caused by Klebsiella pneumoniae carbapenemase (KPC). During hospital stay, he presented elevated Gamma-glutamyl transferase (GGT = 2587 U/L) and alkaline phosphatase (AP = 1436 U/L), without jaundice. Magnetic resonance imaging cholangiography showed intra-hepatic sclerosing cholangitis and a dilated choledocum, with no signs of lithiasis (11 mm). Ursodeoxycholic acid was started (15/mg/kg daily), with almost no improvement (GGT 1845 U/L and AP 1022 U/L) after a couple of months. After a few months, he presented upper abdominal pain and was diagnosed with acute pancreatitis. He underwent endoscopic retrograde cholangiopancreatography (ERCP), which identified a cast in the format of the external biliary tract, which was removed (Fig. 1), with improvement of symptoms and laboratory.

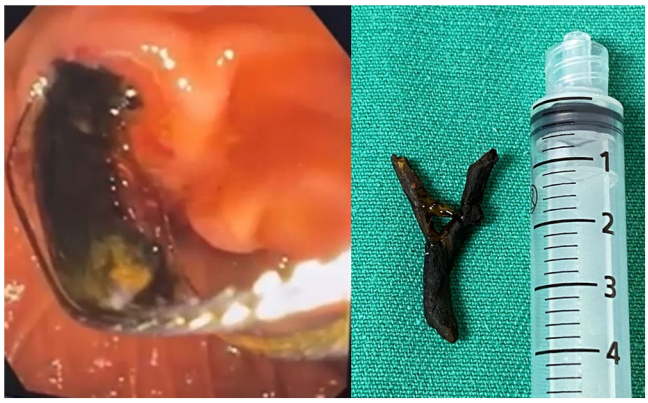

Figure 1 Left – endoscopic retrograde cholangiopancreatography (ERCP) with removal of a biliary cast. Right – cast with the format of extra-hepatic biliary tree.

In the six cases reported by Vega et al.,[1] none of the patients underwent an ERCP. In our clinical experience with the Gamma variant in Southern Brazil, we have treated many cases of this novel entity, every one of them with the same choledochal cast removed via ERCP. In our first case, which we published in Portuguese in the beginning of 2021, the same cast was removed as the case we have described above; even intra-hepatic lithiasis was diagnosed via percutaneous trans-hepatic cholangiography.[5]

Therefore, we believe the diagnosis and management of post-COVID 19 cholangiopathy requires an ERCP, especially in the presence of a dilated choledocus in imaging studies.

Ethics

The patient has agreed to the reporting of his case.

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☆ Comment on: Pizarro Vega NM, Valer Lopez-Fando P, de la Poza Gómez G, Piqueras Alcol B, Gil Santana M, Ruiz Fuentes P, Rodríguez Amado MA, Bermejo San José F. Secondary sclerosing cholangitis: A complication after severe COVID-19 infection. Gastroenterol Hepatol. 2022 May 13:S0210-5705(22)00144-3. [doi:10.1016/j.gastrohep.2022.04.003] [PMID: 35569544] [PMCID: PMC9188449].

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Cullen's sign associated with variceal bleeding

Signo de Cullen asociado a hemorragia por várices esofágicas

Dear Editor,

The authors describe the case of a 78-year-old patient who presented with melena for 48 h. No abdominal pain or other symptoms were recalled. The patient had obesity (body mass index of 33 kg/m^2), arterial hypertension, type 2 diabetes mellitus and stage 3 chronic kidney disease; there were no smoking or drinking habits. The patient had been extensively studied 4 years earlier due to thrombocytopenia and splenomegaly, whose etiology remained undefined. Indeed, advanced liver fibrosis had been excluded (liver parameters were sustainedly normal, no radiological signs of cirrhosis neither endoscopic signs of portal hypertension (PH) were found, mean transient elastography-measured liver stiffness was 9.2 kPa [interquartile range 0.4]); two bone marrow biopsies were under the normality. The patient was under anti-hypertensive and oral hypoglycemic drugs, daily ferrous sulphate, and erythropoietin every two weeks. At admission, the physical examination was normal, except for periumbilical ecchymosis with onset in the prior 24 h (Fig. 1A1). Laboratory tests showed normocytic and normochromic anemia (hemoglobin 9.7 g/dL), leukocytosis ($27.2 \times 10^3/\mu L$), thrombocytopenia ($100 \times 10^3/\mu L$) and a mildly deranged coagulation (international normalized ratio 1.4). The liver panel and C-reactive protein were normal. Considering the suspicion of upper gastrointestinal bleeding, an esophagogastroscopy was performed (Fig. 1A2–4). Large esophageal varices with a «white nipple sign» were identified and promptly banded. To exclude the presence of any concomitant illness that could associate with the Cullen's sign and justify the presence of leukocytosis (even more considering that the patient had chronic leukopenia), an abdominopelvic computed tomography scan with contrast was performed. It revealed a cirrhotic liver, identified esophagogastric and retroperitoneal varices and signs of splenorenal shunt; the pancreas and the remaining organs were normal, and no active bleeding was detected. The patient remained asymptomatic and hemodynamically stable, presented no additional blood losses and leukocytosis remitted.

The bruising surrounding the umbilicus corresponds to the Cullen's sign. This sign was first described more than 100 years ago, in the setting of a ruptured ectopic pregnancy. Since then, it has been reported to occur in several clinical scenarios, including pancreatitis (the most common, appearing in 3.0–5.0% of the acute pancreatitis cases), splenic injury, perforated duodenal ulcer, acute pyelonephritis, as a manifestation of intraabdominal metastasis, among others.[1,2] The common ground is that all these may course with retroperitoneal bleeding, being hypothesized that blood then spreads to the periumbilical fatty tissue through the round ligament of liver which forms part of the free edge of the falciform ligament.[1] This is the second report of Cullen's sign associated with PH,[3] and the first in a patient with acute variceal bleeding and without a prior diagnosis of cirrhosis. This case highlights the large interindividual heterogeneity of metabolic-associated fatty liver disease (MAFLD), and the importance of developing tools to identify the «rapid progressors», as up to one fifth of the patients without significant fibrosis may develop F3/F4 fibrosis over 5 years,[4] with undeniable increase in morbidity and mortality. In addition, it must be acknowledged that, in MAFLD, PH may be present even in the absence of fibrosis, and that PH-related complications may occur with lower portal pressure gradients, when compared to other etiologies.[5]