

4. Faruqi S, Okoli FC, Olsen SK, Feldman DM, Kalia HS, Park JS, et al. Cholangiopathy after severe COVID-19: clinical features and prognostic implications. *Am J Gastroenterol.* 2021;116:1414–25, <http://dx.doi.org/10.14309/ajg.0000000000001264> [PMID: 33993134].
5. Gracioli AM, Bortoli BR, Gremelmer EMC, Henrich CF, Salgado K, Balbinot RA, et al. Post-COVID-19 cholangiopathy: a novel clinical entity. *Rev AMRIGS.* 2021;65:69–73. Available from: <https://anyflip.com/stzd/yren/>
6. Demoliner M, da Silva MS, Gularte JS, Hansen AW, de Almeida PR, Weber MN, et al. Predominance of SARS-CoV-2 P.1 (Gamma) lineage inducing the recent COVID-19 wave in southern Brazil and the finding of an additional S:D614A mutation. *Infect Genet Evol.* 2021;96:105134, <http://dx.doi.org/10.1016/j.meegid.2021.105134> [PMID: 34763050] [PMCID: PMC8575543].

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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/m²), 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 ($27.2 \times 10^3/\mu\text{L}$), thrombocytopenia ($100 \times 10^3/\mu\text{L}$) 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

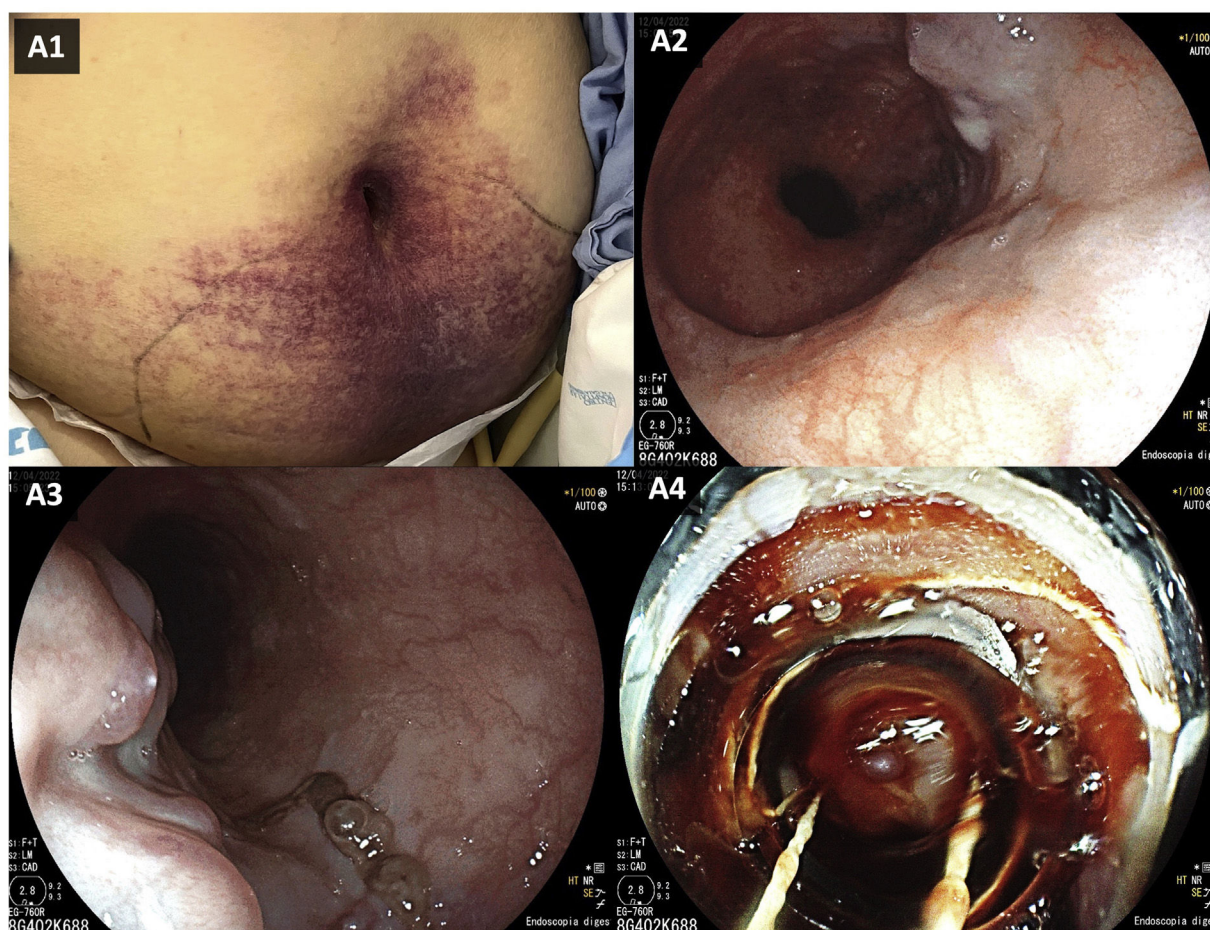


Figure 1 Inspection of the abdomen (A1) and endoscopic views of the esophagus (large esophageal varices [A2], white nipple sign [A3], band ligation [A4]).

Authors' contributions

All authors were involved in patients' management and approved the final version of the manuscript.

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Conflicts of interest

The authors have no conflict of interests to disclose.

References

1. Singh G, Mittal A, Panwar VK, Ghorai R, Upadhyay A. Acute pyelonephritis with Cullen's sign masquerading as pancreatitis. *Cureus*. 2022;14:e23222, <http://dx.doi.org/10.7759/cureus.23222>.
2. Ximenes RO, Vieira Costa JP, Pereira E, Silva KT. Cullen's sign: not always acute pancreatitis. *Gastroenterology*. 2018;154:28–9, <http://dx.doi.org/10.1053/j.gastro.2017.05.032>.
3. Chauhan S, Gupta M, Sachdev A, D'Cruz S, Kaur I. Cullen's and Turner's sign associated with portal hypertension. *Lancet*. 2008;372:54, [http://dx.doi.org/10.1016/S0140-6736\(08\)60993-9](http://dx.doi.org/10.1016/S0140-6736(08)60993-9).
4. Gill MG, Majumdar A. Metabolic associated fatty liver disease: addressing a new era in liver transplantation. *World J Hepatol*. 2020;12:1168–81, <http://dx.doi.org/10.4254/wjh.v12.i12.1168>.
5. Bassegoda O, Olivas P, Turco L, Mandorfer M, Serra-Burriel M, Tellez L, et al. Decompensation in advanced non-alcoholic fatty liver disease may occur at lower hepatic venous pressure gradient levels than in patients with viral disease. *Clin Gastroenterol Hepatol*. 2022;20:2276–86, <http://dx.doi.org/10.1016/j.cgh.2021.10.023>, e6.

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