

Acalculous Hemorrhagic Cholecystitis and SARS-CoV-2 Infection

Editor

We read with great interest the letter of Anand ER *et al.*¹ in response to the article of Spinelli and Pellino² and we are pleased to present the case of a 79-year old white man hospitalized in a rehabilitation clinic after hip replacement for fracture, who suddenly developed fever, cough, and chest pain. He arrived at our Emergency Department with the suspicion of SARS-CoV-2 infection and a nasopharyngeal swab, immediately collected confirmed the suspicion. His body temperature was 38°C, arterial oxygen saturation was 97%. A slight decrease in the lymphocyte count $0,96 \times 10^9/L$, an increase of the C-reactive protein (9,46 mg/L) and of the D-dimer (1180 µg/L) was noted. Past medical history was remarkable for hypertension and type 2 diabetes under oral medication. A thin-section chest computed tomography (CT)

showed a mix of ground glass opacities and consolidation areas localized bilaterally in the basal lobes. Azithromycin 500 mg daily, hydroxychloroquine 200 mg daily, methylprednisolone 20 mg daily, enoxaparin 6,000 I.U. twice per day, bisoprolol 2.5 mg daily, and entecavir 0,5 mg daily were then prescribed. On day 7, a sudden drop of the hemoglobin level (7.8 g/dL) was recorded and a physical examination revealed an abdominal tenderness on the right upper quadrant. An emergent thin-section abdominal CT scan was performed revealing active contrast extravasation around (maximum diameter 15x12 cm) and inside a perforated acalculous gallbladder. The bleeding sourced from branches of the cystic artery. An emergent cholecystectomy was then undertaken. The postoperative course was uneventful, and the patient is alive at 2-month follow-up. This extraordinary concatenation of events allows us to speculate on various interesting aspects. The tropism of SARS-CoV-

2 with the biliopancreatic tract might have been at the basis of the development of an acalculous cholecystitis, which is *per se* a relatively uncommon event. The contextual hemorrhage from an inflamed gallbladder is also a rare occurrence, with the literature limited to relatively small series, and it was probably worsened by the simultaneous administration of low-molecular weight heparin.

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- 1 Anand ER, Major C, Pickering O, Nelson M. Acute Pancreatitis in a COVID-19 Patient. *Br J Surg* 2020; **107**: e182.
- 2 Spinelli A, Pellino G. COVID-19 pandemic: perspectives on an unfolding crisis. *Br J Surg* 2020; **107**: 785–787.