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Clinical case: severe upper gastrointestinal bleeding and covid-19

Caso clínico: hemorragia digestiva alta grave y covid-19

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ABSTRACT
Upper gastrointestinal bleeding in patients with COVID-19 is unusual and can be fatal. It is described in up to 13% of hospitalized patients with coronavirus. Endoscopic treatment is a challenge for the patient due to the risk of respiratory failure, as well as for health personnel due to the risk of airborne transmission. We present an atypical clinical case of severe upper gastrointestinal bleeding due to COVID-19.
Keywords: Coronavirus, gastrointestinal bleeding.

RESUMEN
La hemorragia digestiva alta en pacientes con COVID-19 es inusual y puede llegar a ser mortal. Se describe en hasta un 13 % de los pacientes hospitalizados con coronavirus. El tratamiento endoscópico es un desafío para el paciente debido al riesgo de insuficiencia respiratoria, como para el personal de salud debido al riesgo de transmisión aérea. Presentamos un caso clínico atípico de hemorragia digestiva alta grave por COVID-19.
Palabras clave: Coronavirus, hemorragia gastrointestinal.

INTRODUCTION

The severe acute respiratory syndrome SARS-CoV-2 establishes the disease through COVID-19, air-transmitted viral disease which rapidly became a pandemic in the year 20201. SARS-CoV-2 mainly presents respiratory afflictions, nowadays gastrointestinal, cardiac, and renal manifestations are also known. Gastrointestinal symptoms are present on up to 35% of patients with these being vomiting and diarrhea1-2. It is exceptional that a patient infected with coronavirus reports upper gastrointestinal bleeding.

CLINICAL CASE

A 43-year-old male patient, arterial hypertension currently in treatment with losartan 50mg/day, left hemiplegia due to a stroke. No history of anti-inflammatory, analgesic, antiaggregant nor anticoagulant intake.

Reported nausea and vomiting of gastric content. Stable hemodynamics, clinical anemia. Rectal examination yielded normotonic sphincter, and melena on glove.

Hemoglobin 7.5 g/dl was recorded, and the patient was transfused two volumes of red blood cells. A nasopharyngeal swab was performed due to pandemic state, positive PCR test for COVID-19, currently on the 4th day of the disease.

An emergency fibrogastroscopy was performed which yielded an extensive injury on the infrapyloric region extending to the second portion of the duodenum, with an isolated hemorrhaging blood vessel (Forrest 1A), without ulcerated injury. Hemostasis through endoscopic sclerosis with adrenaline was performed (Figure 1, panel A and B).

Admitted to intensive care unit, proton-pump inhibitors were intitiaded. He showed hemodynamic inestability 24-hours afterwards, another fibrogastroscopy was performed which yielded a jet bleeding subsequent to the adrenaline injection, resolved by hemostatic clip placement.

Proper development after the last performed procedure. Third fibrogastroscopy before discharge yielded no evidence of active bleeding (Figure 1, panels C and D), negative *Helicobacter pylori* through biopsy.

The patient developed properly, being discharged after 15 days and continuing outpatient check-ups through a polyclinic.

DISCUSSION

The most common symptoms of the COVID-19 disease are respiratory, gastrointestinal disorders are key extrapulmonary afflictions, and gastrointestinal hemorrhage is reported on 2 to 13% of admitted coronavirus patients3.

The intestinal epithelium secretes the angiostensin-converting enzyme, viral entry receptor, which is present on the esophagus, ileum, and colon1-3. It is not yet clear if SARS-CoV-2 damages the epithelium and causes the bleeding or if it appertains to multiple factors, including stress caused by the disease, epithelium damage and active inflammation of the mucous membrane through cytokine storm4.

Several authors have proven that the bleeding is most fre-

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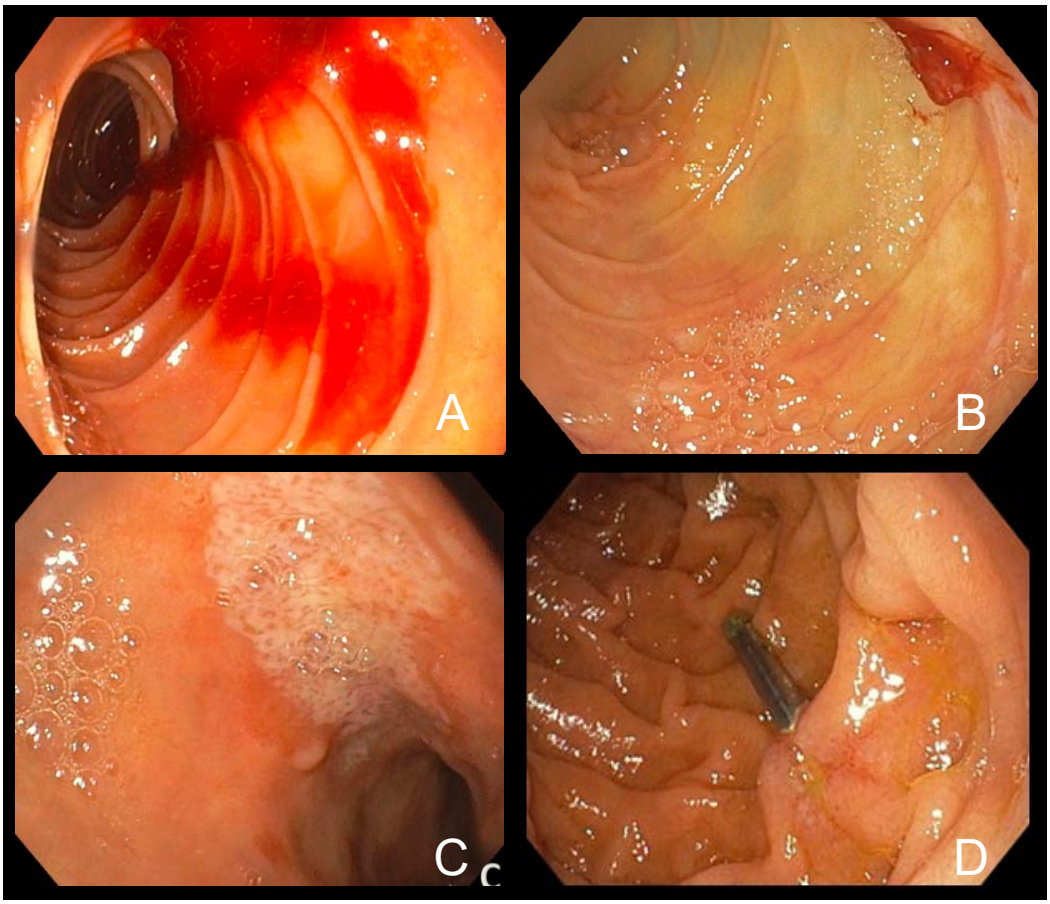

Figure 1. Emergency fibrogastroscopy. Panel A: arterial jet bleeding in the infrapyloric region. Panel B: isolated blood vessel without ulcerated injury after hemostasis with adrenaline. Check-up fibrogastroscopy. Panel C: injury on the infrapyloric region, no bleeding. Panel D: endoscopic check-up of the clipped injury.

quent during hospitalization which suggests its related to the treatment or its secondary to viral factor related to the critical disease, instead of a virus-induced mucous membrane injury3. A multicenter study has proven that 80% of gastrointestinal bleeding were caused by duodenal or gastric ulcers3. In our clinical case an extensive injury of atypical topography (infrapyloric up to duodenum II) was observed, non-ulcerated where an isolated blood vessel protruded from.

The treatment of these patients must be performed by a multidisciplinary team. Firstly, perform an initial fibrogastroscopy on hemodynamically unstable patients and/or under clinical suspicion of rebleeding, due to the risk of respiratory failure for the patient and increase of infection rate for the health personnel.

Secondly, evaluate risk-benefit of anticoagulation, although the COVID-19-induced coagulopathy is recognized, which is the reason why anticoagulation is one of the treatment's pillars, caution and extreme vigilance must be implemented in comorbidity patients5-6.

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