

A Rare Case of Colon Perforation in a COVID-19 Young Patient

Coppola MG^{1*}, Vespere G², Lugarà M¹, Madonna P¹, Bologna C¹, Peirce C³, Oliva G¹, Guerra MV¹, Ferraro A¹, Turino C¹ and Pone E³

¹Internal Medicine Unit, Ospedale del Mare, ASL Napoli 1 Centro, Naples, Italy

²Gastroenterology Unit, Ospedale del Mare, ASL Napoli 1 Centro, Naples, Italy

³Covid Medicine Unit, Ospedale del Mare, ASL Napoli 1 Centro, Naples, Italy

*Corresponding author: Coppola MG, Internal Medicine Unit, Ospedale del Mare, ASL Napoli 1 Centro, Naples, Italy, E-mail: gabry.cop@libero.it

Background: Although respiratory symptoms predominate in COVID-19, abdominal complications can occur in COVID-19 patients.

Case history: We report an 26-year-old patient who presented to the emergency room with severe abdominal distention. He had a 2 week history of persistent fever and cough in SARS-Cov2 infection. Laboratory: WBC 19,600 cells/mm³, CRP 20,57 mg/L, D-Dimer 5830.0 microg/L and procalcitonin 9,18 ng/ml. Abdominal CT showed pneumoperitoneum and ascending colon wall thickening. The patient underwent emergent laparotomy and he was found a multiple transverse colon perforation. He underwent segmental resection of the transverse colon and ileostomy. He was diagnosed with a severe COVID-19 pneumonia and required noninvasive ventilation. In the hospital the patient suffered severe intestinal bleeding treated with interventional radiographic embolization. The Pathology revealed extensive areas of ischemic changes, including extensive necrosis, microvascular thrombosis and focal hemorrhages. The patient was discharged after 35 days.

Discussion: Pathogenesis behind acute intestinal ischemia caused by SARS-COV2 is multifactorial including diffuse endothelial inflammation, increased procoagulant factors and direct bowel damage by SARS-COV2 given high affinity to ACE2 receptor including ileal and colonic enterocytes. This is a rare case of a acute intestinal ischemia in young patient in absence of pre-existing comorbidities (hypertension, diabetes, obesity, essential thrombocytosis) than can occur as complication of COVID-19.



Figure 1 Abdominal CT show severe pneumoperitoneum and colonic distention.

References

1. Piero Boraschi, Luigi Giugliano, Giuseppe Mercogliano, Francescamaria Donati, Stefania Romano, Emanuele Neri Abdominal and gastrointestinal manifestations in COVID-19 patients: Is imaging useful? *World J Gastroenterol* 27: 4143-4159.
2. Bianco F, Ranieri AJ, Paterniti G, Pata F, Gallo G (2020) Acute intestinal ischemia in a patient with COVID-19. *Tech Coloproctol*.