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DOI: 10.17235/reed.2021.7807/2021

Link: [PubMed \(Epub ahead of print\)](#)

Please cite this article as:
A.-Cienfuegos Javier, Almeida Ana, Aliseda Jover Daniel.
PANCREATIC INJURY AND ACUTE PANCREATITIS IN COVID-19 PATIENTS. Rev Esp Enferm Dig 2021. doi:
10.17235/reed.2021.7807/2021.



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Accepted

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PANCREATIC INJURY AND ACUTE PANCREATITIS IN COVID-19 PATIENTS

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The authors declare no conflict of interest.

Keyword: Acute pancreatitis. COVID-19. Immunothrombosis.

Dear Editor,

Apart from pulmonary manifestations, an increasing incidence of pancreatic involvement and acute pancreatitis (AP) have been reported in COVID-19 patients. In January 2021, a PubMed search using the terms "Acute Pancreatitis, COVID-19" yielded a result including 94 studies.

Most of the studies refer to isolated cases or limited series (1) with the added difficulty that some authors have considered as AP elevated lipase and/or amylase levels without the diagnostic criteria for AP being met, as has been highlighted by Chivato et al. (2) in relation to the case they report. Pancreatic involvement has been reported in 17 % of COVID-19 patients and AP in 1.8 %-2.0 % of these patients.

The etiopathogenesis of pancreatic involvement and AP due to the SARS-CoV-2 coronavirus remains unclear. It has been related to the cytopathic effect of SARS-CoV-2 on exocrine (ductal and acinar) and endocrine cells (3). In these cells, high numbers of angiotensin-converting enzyme 2 (ACE-2) receptors have been reported to be present for which SARS-CoV-2 has a high affinity (4).

Other authors have linked these disorders to the systemic inflammatory response (the so-called cytokine storm) with increases in IL-6, IL-2, IL-8, tumor necrosis factor (TNF), gamma interferon, complement activation, macrophages and platelets. This response has been associated with the development of ischemic complications due to arterial or venous micro and macro thromboses in all organs (immunothrombosis) (4,5). It is noteworthy that AP has been reported in children with systemic inflammatory response syndrome.

Other possible causes are secondary to the drugs administered such as the corticoids the patient receives or transitory respiratory failure during admission to intensive care. It is worth noting that AP in COVID-19 patients has been associated with an increase in the Charlson comorbidity index, the incidence of multiorgan failure, persistence of organ failure and hospital mortality.

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