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Conflicts of interest

The authors disclose no conflicts.

Most current article

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Reply. We appreciate the thoughtful comments of Perisetti and colleagues. In line with our article they support our hypothesis that diarrhea in patients with coronavirus disease 2019 (COVID-19) may be related not only to the activity of the new coronavirus but also to the drugs used for its treatment as antibiotics and antivirals. Interestingly, they add that even the cytokine storm generated by COVID-19 may play a role in diarrhea etiopathogenesis by influencing the gut-brain axis and causing increased intestinal permeability.¹ If this theory is confirmed, the use of biological drugs such as tumor necrosis factor inhibitors, which selectively block a proinflammatory cytokine and small molecules such as JAK inhibitors, that target entire inflammatory pathways could represent a possible therapeutic option. Two case reports have previously described cases of COVID-19 patients with inflammatory bowel diseases successfully treated with anti-tumor necrosis factor drug² or JAK inhibitor,³ but the impact of these therapies on diarrhea has not yet been investigated.

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Conflicts of interest

These authors disclose the following: S. Danese has served as a speaker, consultant, and advisory board member for Schering-Plough, AbbVie, Actelion, Alphawasserman, AstraZeneca, Cellerix, Cosmo Pharmaceuticals, Ferring, Genentech, Grunenthal, Johnson and Johnson, Millenium Takeda, MSD, Nikkiso Europe GmbH, Novo Nordisk, Nycomed, Pfizer, Pharmacosmos, UCB Pharma, and Vifor. L. Peyrin-Biroulet has served as a speaker, consultant, and advisory board member for Merck, AbbVie, Janssen, Genentech, Mitsubishi, Ferring, Norgine, Tillots, Vifor, Hospira/Pfizer, Celltrion, Takeda, Biogaran, Boehringer-Ingelheim, Lilly, HAC Pharma, Index Pharmaceuticals, Amgen, Sandoz, Forward Pharma GmbH, Celgene, Biogen, Lycera, Samsung Bioepis, and Theravance. The remaining author discloses no conflicts.

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Clinical Outcomes of COVID-19 Patients With Chronic Hepatitis B Virus Infection Still Need To Be Explored



Dear Editor:

We read with great interest the study by Zou et al.¹ Their results are interesting and important, but we do have some concerns about them.

In this study, the authors found that liver injury in patients with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and chronic hepatitis B virus (HBV) coinfection was associated with severe illness and an overall poor prognosis. However, these results are built on a single cohort, meaning that coronavirus disease 2019 (COVID-19) patients with HBV coinfection have not

been compared with patients with SARS-CoV-2 infection alone. One of the major concerns for clinicians is whether COVID-19 patients with a specific disease have a more severe illness and a worse prognosis than those without, which is not provided in the current study.

In terms of the data presented in this study, the results of HBV DNA test have not been given, and therefore the clinical stage of included patients cannot be determined clearly. Because most patients in this study are likely to be classified as patients with hepatitis B e antigen-negative chronic HBV infection,² the clinical outcomes of patients with acute HBV infection or with active HBV replication remain unclear. Furthermore, the authors described the information of patients who took oral antivirals on admission. It is not clear whether these patients continued to take antivirals during hospitalization, which may affect patients' clinical outcomes. We also found that many antivirals, antibiotics, and steroids were used for treatment in this study, and the use of these drugs may further influence the results; drug-induced liver injury cannot be ruled out in this study.³

We suspect that immune dysfunction caused by chronic HBV infection may play an important role in the progression of disease in COVID-19 patients. Several studies showed that HBV persists with virus-specific and global T-cell dysfunction mediated by multiple regulatory mechanisms.² Furthermore, depressed immunity is manifested by decreased immune cell populations, and reduced CD4 (+) and CD8 (+) T-cell counts were predictive of disease progression in patients with COVID-19.⁴ Thus, the presence of coinfection leading to possible immune disorders and suppression may influence the disease progression in COVID-19 patients. Because the current study did not present data on patients' immune function, more research is needed to confirm this hypothesis and explain the specific mechanism in the future.

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The authors disclose no conflicts.

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Liver Function Should Be Monitored When Treating COVID-19 in Chronic HBV-Infected Patients



Dear Editor:

We appreciate the comment by Lv et al on our article. In our study, we aimed to describe the characteristics of liver function and its relationship with severity of disease and prognosis of patients with severe acute respiratory syndrome-associated coronavirus 2 (SARS-CoV-2) and chronic hepatitis B virus (HBV) coinfection. Therefore, only patients with SARS-CoV-2 and chronic HBV coinfection were enrolled. Although we did not compare coronavirus disease 2019 (COVID-19) patients with HBV coinfection and patients with SARS-CoV-2 infection alone in our study, Chen et al¹ found no significant differences in liver function parameters, discharge rate, length of stay, severity, and mortality between COVID-19 patients with and without HBV infection. We fully agree with the comment by Lv et al that "the clinical stage of included patients cannot be determined". Because of lack of baseline levels of alanine aminotransferase and HBV DNA, patients could not be grouped according to the chronic HBV infection phases. We acknowledged this in the limitations of our article. Thirteen patients had taken anti-HBV nucleotide/nucleoside analogue therapy on admission and during hospitalization. Because patients could have received several drugs for COVID-19 and