

# Low risk of severe COVID-19 in patients with inflammatory bowel disease: keep calm and take stock

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## RELATED ARTICLE

by Łodyga et al,  
see p. 226

The global SARS-CoV-2 pandemic has hugely impacted healthcare systems worldwide. In the last year, numerous efforts were made to understand how the virus behaves, which population is at higher risk of hospitalization, intensive care support, and death, and how the immune system interacts with SARS-CoV-2. In the field of immune-mediated disease, and, in particular, management of inflammatory bowel disease (IBD), there is still ongoing concern about the susceptibility of patients with IBD to SARS-CoV-2 infection and its impact on their outcomes. According to anthropometric, clinical, and pharmacological characteristics, the stratification of the risk of contracting the infection and developing severe disease (COVID-19) needs further investigation. Considering the high number of patients treated with disease-modifying drugs, deemed at increased risk of severe infections including opportunistic infections caused by viral, bacterial, parasitic, and fungal agents, it is a challenging issue for experts in the field.<sup>1</sup>

In this issue of *Polish Archives of Internal Medicine* (*Pol Arch Intern Med*), Łodyga et al<sup>2</sup> report data from a multicenter, prospective, observational study assessing the seroprevalence of anti-SARS-CoV-2 antibodies in Polish patients with IBD. The authors noted a higher percentage of patients with SARS-CoV-2 infection (diagnosed by positive results of anti-SARS-CoV-2 antibodies) among those with IBD as compared with a control group of non-IBD healthcare professionals (4.6% vs 1.6%). At the same time, however, no symptomatic COVID-19 was observed in that IBD cohort. Moreover, the authors did not find any association between seroprevalence rates and the type of IBD or ongoing medication.

Coronaviruses bind to angiotensin-converting enzyme 2, which is constitutively expressed by the epithelial cells of the lung, intestine, kidney,

and blood vessels. The second step is the fusion of the coronavirus envelope with the host cell membrane, which is activated through proteolytic cleavage induced by host cell trypsin-like proteases. Both angiotensin-converting enzyme 2 and trypsin-like proteases are upregulated in the inflamed gut of patients with IBD,<sup>3</sup> suggesting that they may be at increased risk of SARS-CoV-2 infection, as shown in the study by Łodyga et al.<sup>2</sup> Previous studies assessing SARS-CoV-2 seroprevalence in patients with IBD treated with biologic therapy reported highly variable data, ranging from 21% to 2.3%, but in any case comparable to that of the control groups.<sup>4,5</sup> A key feature of COVID-19-related acute respiratory distress syndrome is the activation of the immune system characterized by a cytokine storm. Biologic therapy may play a protective or therapeutic role against the cytokine storm triggered by SARS-CoV-2 and may even suggest that some cytokine blockers may have reduced the risk of COVID-19 in the study population investigated by Łodyga et al,<sup>2</sup> although their patients with IBD showed a higher frequency of having contact with SARS-CoV-2.

The evidence available until now suggests that patients with IBD do not have an increased incidence of COVID-19,<sup>6-8</sup> and biologic therapy, such as treatment with monoclonal antibodies, does not represent a risk factor for a more severe course of COVID-19.<sup>7,9-11</sup>

Since March 2020, the International Organization for the Study of Inflammatory Bowel Disease has set up an international registry, Surveillance Epidemiology of Coronavirus Under Research Exclusion (SECURE-IBD), to track all cases of COVID-19 among patients with IBD. It represents an additional tool that will be essential to provide insight into the impact of SARS-CoV-2 infection on patients with IBD, including the influence of

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factors such as age, comorbidities, and IBD treatments. Currently, there are about 5524 patients with IBD in the SECURE-IBD registry reported to be infected with SARS-CoV-2.<sup>12</sup> The data available so far have been reassuring and show that patients with IBD are not at higher risk of developing severe COVID-19 compared with the general population. Further information from this relevant resource will soon be available to facilitate clinical management and, particularly, guide the use of medical therapy in patients with IBD during the pandemic.

To conclude, growing evidence demonstrates that patients with IBD are not at higher risk of a severe COVID-19 course. Anyway, patients with IBD should follow the same indications valid for the general population in order to minimize the risk of infection, whereas therapies can be continued without any concern about the susceptibility to COVID-19 in this group.

## ARTICLE INFORMATION

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