SARS-CoV-2 infection in patients with inflammatory bowel disease in the second-third wave and its comparison with data of first wave of pandemic

Infección por SARS-CoV-2 en pacientes con enfermedad inflamatoria intestinal en la segunda y tercera ola y su comparación con los datos de la primera ola

Dear Editor,

The appearance of a new virus (SARS-CoV-2) causing coronavirus disease (COVID-19) in December 2019, in the Chinese city of Wuhan, and its subsequent spread have represented a global public health challenge.[1] Infection severity has been associated with certain patient characteristics, such as prior comorbidities, and therefore patients with inflammatory bowel disease (IBD) could follow a worse course after becoming infected. Series published to date have not found a higher risk of infection or mortality in patients with IBD.[2,3] Even so, data on infection in this type of patient remain highly valuable and there is still special concern in cases of patients on treatment with immunosuppressants, corticosteroids and biologic drugs in whom there is prior evidence of a higher risk of non-gastrointestinal opportunistic infections.[4] Therefore, after publishing our experience in the first wave of the pandemic, we extended our study with data on the incidence and course of COVID-19 in patients with IBD during the second and third wave (July 2020–March 2021) at our hospital.[5] To this end, we designed an observational, descriptive study aimed at evaluating the incidence, clinical characteristics and course of COVID-19 in patients in follow-up on the IBD unit at Hospital de Fuenlabrada [Fuenlabrada Hospital] in the second and third wave of the pandemic. We also compared the data collected to the data from the first wave and evaluated the possible relationship between COVID-19 severity and IBD treatment, as well as the impact of IBD treatment on generating antibodies against SARS-CoV-2 infection.

The infection was relatively common in our series, since 54 of 805 patients with IBD were diagnosed with it in the second and third wave (6.7%; 95% CI: 4.9–8.5). A mild infection was present in 88.9% of cases. In the multivariate analysis, dyspnoea ($P = .005$) and prior comorbidities ($P = .027$) were associated with a more serious infection; therefore, special care is needed in infected patients with these characteristics. Patients who received immunomodulators and/or biologics did not have more severe infection ($P = .33$). Table 1 shows a comparison between patients diagnosed in the first wave and patients diagnosed in the second and third wave. Patients diagnosed in the first wave were older, had more comorbidities and were more symptomatic. Although the number of severe cases was higher in the first wave, due to the limited availability of tests in that period, no differences were found in terms of mortality or percentage of ICU admissions. There was a lower percentage of patients with positive IgG antibodies among those on biologic treatment versus all other patients not on immunosuppressant therapy (31.0% versus 52%; $P = .07$); this must be confirmed in subsequent studies. No cases of reinfection were detected in our series.

In conclusion, this series contributes additional data that corroborate and expand upon the published data and reveal that the infection does not follow a worse course in this type of patient in Fuenlabrada, an area of particular interest given its high incidence of COVID-19 throughout the pandemic.

Table 1 Comparison between patients diagnosed in the first wave and patients diagnosed in the second and third wave.

	First wave	Second and third wave	*P* value
Mean age	55 ± 14	45 ± 13	**.004**
Sex (female)	13 (46.4%)	31 (57.4%)	.48
Type of IBD (Crohn's disease)	11 (39.3%)	31 (57.4%)	.19
Tobacco use (yes)	1 (3.6%)	13 (24.1%)	**.04**
Comorbidities (yes)	17 (60.7%)	17 (31.5%)	**.02**
IMM treatment (yes)	10 (35.7%)	18 (33.3%)	.98
Biologic treatment (yes)	5 (17.8%)	15 (27.8%)	.47
Gastrointestinal symptoms	14 (50.0%)	24 (44.4%)	.80
Cough	21 (75.0%)	15 (27.8%)	**.0001**
Fever	24 (85.7%)	23 (42.6%)	**.0005**
Dyspnoea	13 (46.4%)	11 (20.4%)	**.02**
Anosmia/ageusia	17 (60.7%)	21 (38.9%)	.09
Headache	17 (60.7%)	14 (25.9%)	**.0045**
Myalgia	11 (36.3%)	11 (20.4%)	.11
Infection severity (moderate to severe)	15 (53.6%)	6 (11.1%)	**.0001**
ICU admission	1 (3.5%)	0 (0%)	.73
Mortality	1 (3.5%)	1 (1.8%)	.78
Any treatment for COVID-19 (yes)	15 (53.6%)	6 (11.1%)	**.0001**
Temporary withdrawal of treatment for IBD (yes)	13 (46.4%)	6 (13.1%)	**.009**

The data in bold in the table refer to clinically significant results with $P < .05$.

References

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Alicia Algaba[*], Iván Guerra, Sofía Castro, Fernando Bermejo

Servicio de Digestivo, Hospital Universitario de Fuenlabrada, Madrid, Spain

[*] Corresponding author.
E-mail address: alicia_algaba@hotmail.com (A. Algaba).