## The Effect of the COVID-19 Pandemic on the Medical Mode of Patients With Inflammatory Bowel Disease in China

**Key Words:** inflammatory bowel disease, medical mode, COVID-19

To the Editors.

We read with interest the article by Martin Arranz et all conducting a national survey among inflammatory bowel disease (IBD) gastroenterologists to investigate the changes in practice, IBD treatments, and diagnosis and treatment of COVID-19 in IBD units during the COVID-19 pandemic. They found many changes in structure, diagnosis of COVID-19, and modifications in IBD treatments within IBD units. We agree with these findings and organized a questionnaire that included alterations in the mode of medical treatment and medical consultation in patients with IBD during the COVID-19 pandemic.

Two hundred thirty-nine patients with IBD (29.71% were patients with Crohn disease, 63.18% were patients with ulcerative colitis, and 7.11% had suspected cases of IBD that had not been confirmed) participated in the questionnaire, including 108 women (45.19%) and 131 men (54.81%). Some of the changes that occurred with the medical treatment

and medical mode of patients with IBD are shown in Table 1). The results showed that 20.6% of patients preferred to buy drugs online before the COVID-19 pandemic, whereas the number of such patients had increased to 28.97% during the COVID-19 pandemic. Before the COVID-19 pandemic, 53.4% of patients used 5-aminosalicylates, 3.7% used corticosteroids, 12.65% used immunosuppressive drugs, and 14.2% used biologic therapies. However, during the pandemic, 52 patients (21.76%) had changed their medications and 31.14% complained that they could not buy enough drugs or inject infliximab on time. The main reason was that many hospitals have been unable to open and treat patients who were not diagnosed with COVID-19 (66.67%). Thus 41 patients (17.15%) had delayed the use of infliximab injection therapy, and 36 of these patients (87.8%) had delayed for more than 2 weeks. Most of these patients (70.49%) had to stop biologic therapies.

During the COVID-19 pandemic, 188 patients with IBD (78.66%) were in stable condition, and 51 patients (21.34%) had fever, abdominal pain, diarrhea, hematochezia, vomiting, and joint pain were related to IBD. And these patients received regular IBD treatments at our IBD center were inpatients and outpatients. In addition, 43.79% patients chose an internet platform for medical consultation. Mobile communication such as WeChat accounted for 57.45% of

online medical advice. The results of our study showed that there were significant differences in the mode of medical treatment, medical consultation and the method of buying drugs before and after the COVID-19 pandemic.

In conclusion, we found that the COVID-19 pandemic has affected patients with IBD in the mode of medical treatment, medical consultation, and method of buying medications. In addition, the number of patients with IBD using the internet for medical consultation is increasing.

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TABLE 1. Demographic and Clinical Features of 239 Patients With IBD

	Did Not Change Medication	Changed Medication
Participants (%)	187 (78.24)	52 (21.76)
Gender (%)	` /	` ,
Male	100 (53.48)	31 (59.62)
Female	87 (46.52)	21 (40.38)
Disease (%)		
CD	57 (30.48)	14 (26.92)
UC	119 (63.64)	32 (61.54)
Undiagnosed	11 (5.88)	6 (11.54)
Age, y (%)		
≤16	3 (1.60)	0 (0)
16~40 (>16, ≤40)	82 (43.85)	32 (61.54)
40~65 (>40, ≤65)	90 (48.13)	20 (38.46)
>65	12 (6.42)	0 (0)
Time of last treatment (%)		
≤3 mo	50 (26.74)	20 (38.46)
3~6 mo (>3 mo, ≤6 mo)	43 (22.99)	13 (25)
6~12 mo (>6 mo, ≤12 mo)	44 (23.53)	11 (21.15)
>12 mo	50 (26.74)	8 (15.38)
Course of disease		
≤2 y	99 (52.94)	30 (57.69)
2~5 y (>2 y, ≤5 y)	46 (24.60)	10 (19.23)
5~10 y (>5 y, ≤10 y)	26 (13.90)	8 (15.38)
>10 y	16 (8.56)	4 (7.69)
Medication use before COVID-19 pandemic (%)		
5-ASA	132 (61.11)	34 (53.13)
Corticosteroid	7 (3.24)	5 (7.81)
Immunosuppressive	30 (13.89)	9 (14.06)
Biologic therapy	35 (16.20)	11 (17.19)
Other	12 (5.56)	5 (7.81)
Medication use during COVID-19 pandemic (%)		
5-ASA	126 (62.07)	33 (56.90)
Corticosteroid	3 (1.48)	3 (5.17)
Immunosuppressive	27 (13.30)	7 (12.07)
Biologic therapy	31 (15.27)	11 (18.97)
Other	16 (7.88)	4 (6.90)
Reason for changing medications		
Not enough drugs	_	10 (16.39)
No biologic therapy	_	9 (14.75)
Self-reducing drug	_	10 (16.39)
Reduce medicine according to physician	_	15 (24.59)
Other	_	17 (27.87)
Disease stability (%)		
Stable	152 (81.28)	36 (69.23)
Unstable	35 (18.72)	16 (30.77)
Whether to delay use of biologics (%)		
Unused	139 (74.33)	34 (65.38)
No	19 (10.16)	6 (11.54)
Yes	29 (15.51)	12 (23.08)