## LETTER TO THE EDITOR

# Letter: immunotherapy in IBD patients in a SARS-CoV-2 endemic area

#### Editors,

With interest, we read the article of Taxonera et al on symptoms and the risk of COVID-19 in inflammatory bowel disease (IBD).<sup>1</sup> We would like to provide data from our IBD centre during the outbreak of SARS-CoV-2 concerning patients receiving immunotherapies.

When SARS-CoV-2 spread pandemically,<sup>2,3</sup> the first German patient was described in January 28th in Munich,<sup>4</sup> which later became a hotspot<sup>5</sup> with an infection rate of 0.40% and a mortality of 2.9% in May 2020, particularly among old and sick patients.<sup>2</sup> Therefore, soon two questions raised great concern: are IBD patients who receive immunotherapies more susceptible to SARS-CoV-2 infections than the general population and are infected patients exposed to a more severe course?

Our tertiary outpatient clinic oversees more than 1200 IBD patients. According to the suggestions of the ECCO in March 2020,<sup>6</sup> we decided to continue our regular ambulatory service for all patients and to start an observational study. Only appointments of patients who felt un-well, reported fever, cough or had contact with SARS-CoV-2-positive patients, were postponed for at least 2 weeks.

Since the estimated number of silent SARS-CoV-2 infections is high<sup>7</sup> and most individuals show only moderate symptoms of respiratory tract infection, we called or invited our patients to fill-in a questionnaire,<sup>8</sup> asking whether they had any of those symptoms since the start of the pandemic (January 1st until May 20th) (Figure 1), and inquiring about hospitalisations, contact with SARS-CoV-2 patients, results of SARS-CoV-2 swab tests and IBD-related information.

Until May 20th, we had contacted 1172 patients, of whom 1045 had successfully completed the questionnaire. Of those, 51.5% had Crohn's disease, 48.5% had ulcerative or indeterminate colitis and 52.1% were females. The median age was 39 years (18-89), and 81.8% of all patients were in remission as defined by CDAI and MAYO scores. Immunotherapies were given in 79.7%, consisting mainly of biologic therapies (anti-TNF-alpha 42.0%, ustekinumab 13.0%, vedolizumab 11.7%, biologic combinations 11.4% and immunosuppressants or systemic steroids 1.6%), 20.3% received no therapy, mesalazine or topical steroids. In 20 patients, immunotherapy was started for the first time between March and May 2020.

Symptoms of respiratory tract infections occurred less frequently in IBD patients with immunotherapies as compared with those without (Figure 1A), and occurred less frequently in older (>49 years) than in younger patients with immunotherapies (Figure 1B).

Of all patients, 55 had received a SARS-CoV-2 swab test and five were positive with severe symptoms (0.49% of all participating patients): Three received regular infliximab therapy (32, 45 and 53 years), a 45-year old received ustekinumab (90 mg) and azathio-prine (50 mg/d). A 49-year old had no immunotherapy. All five were home quarantined, their course remained uneventful and immunotherapies were continued.

Our registry data show that even in an endemic area, IBD patients receiving immunotherapies have no increased risk for respiratory tract and SARS-CoV-2 infections. Immunotherapies do not expose older people to a risk of respiratory tract infections. The course of SARS-CoV-2 infections in IBD patients receiving immunotherapies was mild and uneventful.

Our data confirm the recommended practice that immunotherapies should not be stopped or delayed during the COVID-19 crisis.

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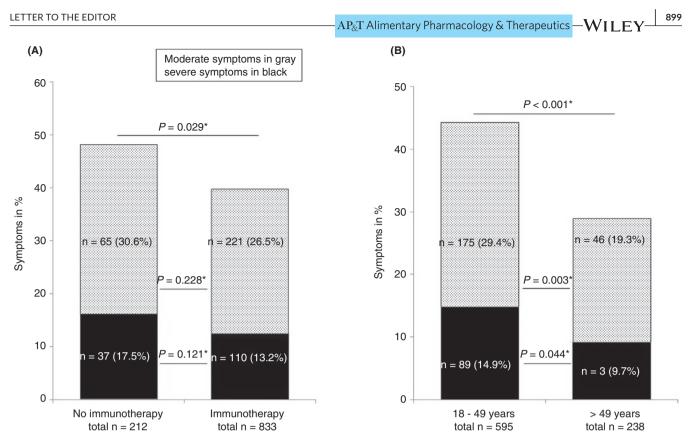
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**FIGURE 1** Symptoms of respiratory tract infections: moderate in grey (cough, rhinitis and sore throat) and severe in black (fever, chills, anosmia) in (A) patients with or without immunotherapy and (B) patients with immunotherapy according to their age. \*two-sided Fisher's exact test

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