PREVALENCE OF COVID-19 SYMPTOMS AMONG INFLAMMATORY BOWEL DISEASE PATIENTS TREATED WITH BIOLOGICAL AGENTS

Thomas E Conley[1], Chris Probert[2], Sreedhar Subramanian[1] ¶

[1]Department of Gastroenterology, Liverpool University Foundation Hospitals NHS Trust, Liverpool, UK, [2]Department of Cellular and Molecular Physiology, Institute of Translational Medicine, University of Liverpool, Crown Street, Liverpool L69 3GE.

¶Corresponding author:

Sreedhar Subramanian, MD, MRCP
Consultant Gastroenterologist and Honorary Senior Lecturer
Department of Gastroenterology
Liverpool University Hospital Foundation NHS Trust and University of Liverpool
Prescot Street
Liverpool L7 8XP, UK
Email: sreedhar.subramanian@liverpoolft.nhs.uk

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We read with interest the recommendations from the ECCO-COVID taskforce on the management of inflammatory bowel disease patients during the Covid-19 pandemic in which they recommend continuation of biologic and immunomodulatory therapy[1]. Further reassuring data from the international SECURE-IBD registry[2] on the outcomes of Covid-19 among IBD patients treated with anti-tumour necrosis factor (TNF) agents lend support to the ECCO recommendations. Whilst the data from the SECURE-IBD registry for outcomes of Covid-19 among biologics treated patients are reassuring, they rely on physician reporting and prone to selection bias. There is a paucity of data on the prevalence of Covid-19 symptoms among an unselected cohort of IBD patients treated with biologics. We conducted a survey on the prevalence of Covid-19 symptoms among consecutive IBD patients treated with biologics attending our infusion unit for administration of intravenous or subcutaneous biologics during the calendar period 24/02/2020 to 10/07/2020 (patient characteristics, Table 1). Patients were asked to report if they had symptoms suggestive of Covid-19 as described previously[3] (fever, chills, severe tiredness, sore throat, cough, shortness of breath, headache, anosmia or ageusia, and new onset nausea, vomiting, or diarrhoea) during the preceding three months and if they had been tested or hospitalized for Covid-19. We considered presence of fever, cough with or without ansomia to represent Covid-19 symptoms. Categorical variables are summarized as frequency (%) and continuous variables as median. We compared variables between UC and CD using Fisher's Exact test.

Of the 203 patients who responded, 105 (52%) had CD and 98 (48%) had UC. Baseline characteristics were comparable between UC and CD apart from a higher proportion of women among CD patients (84.8% vs 51.1%, P<0.001) and a higher rate of corticosteroid use among UC patients (12.3% vs 4.8%, p=0.075). Of the entire cohort, 101 (46.6%) patients were on a concomitant immunomodulator. A large proportion reported following shielding (n=114, 56.2%) or following social isolation (n=40, 19.7%), in keeping with recommendations from UK government.

The overall prevalence of typical Covid-19 symptoms was 28.6% among ulcerative colitis (UC) and 13.3% among Crohn's disease (CD) patients (P=0.009). None of the patients were hospitalized.

Though the prevalence of Covid-19 symptoms among this cohort is higher than that reported in the UK population, the figure is broadly consistent with putative infection rates reported from a modelling study in the UK[4]. The higher prevalence of Covid-19 symptoms in UC is intriguing and largely explained by gender differences and concomitant steroid therapy. The main limitation of our study is the lack of virological confirmation of Covid-19 illness. Reassuringly, none of the patients reported hospitalization or severe illness. Our findings provide further reassurance and add to emerging evidence[5] of favourable Covid-19 outcomes in this group of patients.

Table 1: Baseline characteristics of included subjects.

		UC	CD
Number		98	105
Age		44 (range 18-86)	40 (range 17-80)
Female (%)		51.1	84.8
Comorbidity (%)		30.0	21.0
Biologic agent	Anti-TNF - Infliximab or Adalimumab	38.8% (38)	76.2% (80)
	Integrin inhibitor (α4β7) - Vedolizumab	61.2% (60)	23.8% (25)
Distancing measures	Unknown	3.1% (3)	13.3% (14)
	Social distancing	20.4% (20)	19.1% (20)
	Social isolation	16.3% (16)	14.3% (15)
	Shielding	60.2% (59)	53.3% (55)
Covid symptoms	Cough	18.4% (18)	8.6% (9)
	Fever	10.2% (10)	4.8% (5)
	Fever + Cough	6.1% (6)	2.9% (3)
	Fever + Cough + Anosmia	0.0% (0)	1.9% (2)
	Total symptomatic patients	**28/98 (28.6%)**	**14/105 (13.3%)**
Acute steroid co-prescription	Asymptomatic	66.6% (8/12)	100% (5/5)
	Symptomatic	33.3% (4/12)	0.0% (0/5)
	Total patients on steroids	**12/98 (12.3%)**	**5/105 (4.8%)**
Dual therapy (biologic and immunomodulator)	Thiopurine	97.6% (40/41)	90.0% (54/60)
	Other Immunomodulator	2.4% (1/41)	10.0% (6/60)
	Steroid co-prescription	9.8% (4/41)	6.6% (4/60)
	Anti-TNF - Infliximab or	65.9% (27/41)	88.3% (53/60)

	Adalimumab		
	Integrin inhibitor (α4β7) - Vedolizumab	34.1% (14/41)	11.7% (7/60)
	Asymptomatic	75.6% (31/41)	91.7% (55/60)
	Symptomatic	24.4% (10/41)	8.3% (5/60)
	Total patients on dual therapy	**41/98 (41.8%)**	**60/105 (57.1%)**
Hospitalization or death		0	0
Mean duration on current biologic (years)		2.29	3.70
Mean duration on current immunomodulator (years)		5.07	4.98

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