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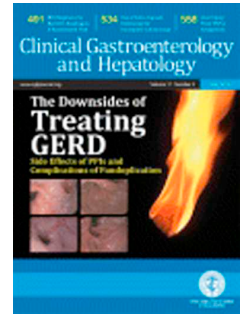


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IBS in IBD: A label to stick with caution - authors' reply

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TITLE PAGE

Title: IBS in IBD: A label to stick with caution - authors' reply

Short “running” title: IBS in IBD: A label to stick with caution - authors' reply

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Abbreviations:

FC	fecal calprotectin
IBD	inflammatory bowel disease
IBS	irritable bowel syndrome
UC	ulcerative colitis

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Reply.

We thank Hirten and Colombel for their erudite commentary on our recently published work.^{1,2} The findings of our study highlight the association between irritable bowel syndrome (IBS)-type symptoms, in patients with quiescent inflammatory bowel disease (IBD), and psychological co-morbidity and poor quality of life, and are in keeping with those of another large study from Sweden, reporting that 18% of patients with ulcerative colitis (UC) in deep remission report these symptoms.³ These studies highlight a hitherto poorly characterized cohort of patients with unmet needs, for which the therapeutic options are limited.

In response to their specific comments, firstly we acknowledged that the use of fecal calprotectin (FC) as an objective measure of inflammatory disease activity is contentious, as is the cut-off used to define disease activity. However, the routine use of ileocolonoscopy and small bowel imaging in a cross-sectional study of 378 patients is impractical and potentially unethical, given that 60% of patients did not have clinically active disease at the time of participation. We used a FC cut-off of $\geq 250\mu\text{g/g}$ to define active disease, based on previous studies in this field and expert consensus.⁴⁻⁶ However, we conducted sensitivity analyses using a cut-off of $\geq 100\mu\text{g/g}$. In these analyses, the proportion of patients with IBS-type symptoms was reduced, but the association between symptoms, psychological co-morbidity and poor quality of life remained. In addition, the mean FC in those with IBS-type symptoms in our primary analysis was $<100\mu\text{g/g}$ in both Crohn's disease and UC.

Secondly, we conceded that describing all patients as suffering from IBS may be misleading, particularly as similar symptoms secondary to other organic complaints such as bile acid malabsorption and small intestinal bacterial overgrowth may be the culprit,^{7,8} particularly in those with previous surgery, and that this may have inflated the prevalence of these symptoms. It may therefore be more accurate to describe these patients as reporting "persistent gastrointestinal (GI) symptoms in the absence of inflammation", rather than "IBS-type symptoms". Indeed, within the same cohort of patients, subsequent analysis of the prevalence and impact of persistent GI symptoms in the absence of inflammation on psychological co-morbidity and quality of life demonstrated similar findings to those described in the present study, irrespective of whether these symptoms met Rome III criteria for IBS.⁹

Thirdly, Hirten and Colombel highlight the potential for misclassification of persistent symptoms in quiescent IBD as IBS, and that treatment of these patients should be tailored to the underlying cause, citing dysregulation of the enteric nervous system and enteric dysmotility, two of the cardinal features of the functional gastrointestinal disorders, as potential targets to therapy. To the best of our knowledge, evidence-based management strategies for these pathophysiologicals are lacking in IBD, and it is this exact group of patients that our study successfully seeks to identify and better characterize. Thus, our findings highlight the need for trials of novel therapeutic interventions in these patients, and the requirement of a paradigm-shift in the approach towards their management. In the UK, there has been a recent call from the Health Technology Assessment for a trial of therapies for ongoing diarrhea and abdominal pain in patients with stable UC, which may help to address this deficit in current knowledge.¹⁰

REFERENCES

1. Hirten R, Colombel JF. IBS in IBD: A label to stick with caution. *Clin Gastroenterol Hepatol*. 2017; doi: 10.1016/j.cgh.2017.04.008.
2. Gracie DJ, Williams CJ, Sood R, et al. Negative Effects on Psychological Health and Quality of Life of Genuine Irritable Bowel Syndrome-type Symptoms in Patients With Inflammatory Bowel Disease. *Clin Gastroenterol Hepatol*. 2017;15(3):376-84.e5. Epub 2016/05/18.
3. Jonefjall B, Ohman L, Simren M, et al. IBS-like Symptoms in Patients with Ulcerative Colitis in Deep Remission Are Associated with Increased Levels of Serum Cytokines and Poor Psychological Well-being. *Inflamm Bowel Dis*. 2016;22(11):2630-40. Epub 2016/09/17.
4. Rogler G, Aldeguer X, Kruis W, et al. Concept for a rapid point-of-care calprotectin diagnostic test for diagnosis and disease activity monitoring in patients with inflammatory bowel disease: expert clinical opinion. *J Crohns Colitis*. 2013;7(8):670-7. Epub 2013/03/23.
5. Targownik LE, Sexton KA, Bernstein MT, et al. The Relationship Among Perceived Stress, Symptoms, and Inflammation in Persons With Inflammatory Bowel Disease. *Am J Gastroenterol*. 2015;110(7):1001-12. Epub 2015/06/17.
6. Gracie DJ, Williams CJ, Sood R, et al. Poor Correlation Between Clinical Disease Activity and Mucosal Inflammation, and the Role of Psychological Comorbidity, in Inflammatory Bowel Disease. *Am J Gastroenterol*. 2016;111(4):541-51. Epub 2016/03/24.
7. Aziz I, Mumtaz S, Bholah H, et al. High Prevalence of Idiopathic Bile Acid Diarrhea Among Patients With Diarrhea-Predominant Irritable Bowel Syndrome Based on Rome III Criteria. *Clin Gastroenterol Hepatol*. 2015;13(9):1650-5 e2. Epub 2015/03/15.
8. Ford AC, Spiegel BM, Talley NJ, et al. Small intestinal bacterial overgrowth in irritable bowel syndrome: systematic review and meta-analysis. *Clin Gastroenterol Hepatol*. 2009;7(12):1279-86. Epub 2009/07/16.
9. Gracie DJ, Ford AC. Ongoing Symptoms in Ulcerative Colitis Patients in Remission: Irritable Bowel Syndrome or Gastrointestinal Symptoms in the Absence of Inflammation? *Inflamm Bowel Dis*. 2017;23(1):E4-e5. Epub 2016/12/09.
10. <http://www.nihr.ac.uk/funding-and-support/funding-opportunities/1733-management-of-diarrhoea-in-patients-with-stable-ulcerative-colitis/5984>.