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IBS With Constipation, Functional Constipation, Painful and Non-Painful Constipation: *e Pluribus...Plures?*

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Abstract: IBS with constipation (IBS-C) and chronic constipation (CC) can be difficult to distinguish clinically. The Rome III criteria create mutual exclusion between IBS-C and CC, based on the presence of abdominal pain, which is a defining criterion for IBS-C. Previous surveys found that up to 45% of CC patients have abdominal pain and other IBS features. A Spanish general population study proposes a subclassification of patients with CC based on abdominal pain and other features of IBS. As the Rome criteria evolve, these and other observations provide the basis for further efforts in discerning key features of IBS-C and CC.

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Functional gastrointestinal (GI) disorders challenge the clinician and researcher with reciprocal overlap, as the symptom complexes defining their presentation often share multiple manifestations. This overlap of symptoms is present across the board from functional dyspepsia to irritable bowel syndrome (IBS), and appears to be a common theme found from population-based studies (1) down to the individual patient in the clinical setting. Thus, one can question the validity of the current paradigm that each discrete functional GI disorder represents a separate distinct entity (2).

IBS with constipation (IBS-C) and functional constipation (i.e., chronic constipation (CC)) are emblematic of this overlap. These entities can be difficult to distinguish clinically, and even more challenging in patients whose symptoms fluctuate over time. Patients with IBS-C and CC share similar bowel habits and also often experience similar abdominal symptoms, such as abdominal bloating (3).

The Rome III Criteria (4), a tool that clinicians are increasingly encouraged to use, require CC patients to have two or more of the following symptoms to be present on at least 25% of bowel movements over the previous 3 months: incomplete evacuation, straining, lumpy or hard stools, manual maneuvers to facilitate evacuation, difficult to pass stools, or fewer than three bowel movements per week. There are no abdominal symptoms included in the Rome III Criteria for CC, and patients cannot meet the criteria for IBS, which requires the presence of abdominal pain or discomfort that is associated with change in bowel function. Thus, the only similarity in the Rome III Criteria between IBS-C and CC is the bowel symptoms.

However, are the borders truly that clear? Recent studies suggest that IBS-C and CC patients share not only similar bowel symptoms but also abdominal symptoms. If one ignores the IBS exclusion requirement from the Rome III Criteria for CC, as tested in a large survey of over 1,700 individuals in the primary and managed care setting, it can be found that approximately 90% of IBS-C cases meet the CC criteria, and, more importantly, about 44% of the CC patients can fulfill IBS-C criteria (5). This study showed that 45% of CC patients reported abdominal pain, and after the 1-year follow-up survey of 375 patients approximately 1/3 of patients reported symptoms that “switched” from CC to IBS-C, and vice versa.

In this issue of *AJG*, Rey *et al.* (6) further explore the overlap between IBS-C and CC by surveying 1,500 Spaniards from the general population via standardized telephone interviews that included the Rome III questionnaire.

The participants reporting symptoms were classified into three different groups based on the presence and frequency of abdominal pain or discomfort: (i) non-painful constipation, if they reported abdominal pain or discomfort that was present for fewer than 2–3 days per month over the previous 3 months; (ii) painful constipation, if they reported abdominal pain or discomfort that was present for more than 2–3 days per month, but did not meet the Rome III Criteria for IBS-C; and (iii) CC and IBS-C, if

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they met the Rome III Criteria for both IBS-C and CC. A total of 19.2% of respondents fulfilled the Rome III Criteria for CC. Of them, 13.9% were classified as having non-painful constipation, 2.0% were classified as having painful constipation, and 3.3% were classified as having CC and IBS-C. Looking at sociodemographic and other correlates of disease status, the authors found that subjects in the three categories were similar with regard to body mass index, marital status, education, fiber or liquid intake, diet, and exercise. Subjects with painful constipation tended to be more similar to subjects with CC and IBS-C compared with subjects with non-painful constipation with regard to features including younger age, less satisfaction with laxatives, and having more constipation symptoms.

The temporal threshold used by the authors to divide patients into the painful or non-painful constipation group is somewhat narrow. Only abdominal pain, but not bloating, a highly prevalent although not defining complaint in IBS (7), is considered for the grouping of patients. Also, when used in the population setting, the Rome III Criteria reduce the prevalence of IBS-C to a mere 3%, a figure that would imply this condition is almost rare, although more severe.

At first glance, and allowing for an expected degree of recall bias (the patients were asked to recall symptoms over the previous 3 months), these results seem to add another degree of complication to the existing criteria and classification. However, one could conceive that under a less strict definition the group of patients with constipation AND pain or other abdominal symptoms (e.g., bloating) would be much larger, and the demarcation between IBS-C and CC less sharp.

In fact, the border between IBS-C and CC appears blurred even when looking at pathophysiological markers of bowel motor and sensory function. Recently, Shekhar *et al.* (8) found a similar overlap in a group of IBS-C and CC patients who had similar colonic transit times. IBS-C patients had lower pain thresholds to rectal balloon distention compared with CC patients, although there was significant overlap.

Taken together, these epidemiological and mechanistic evidences support the clinical impression that a substantial overlap exists between patients who meet the Rome III Criteria for IBS-C and those who meet the criteria for CC. One should resist, however, the temptation to oversimplify and bundle all different clinical presentations together to reach a unifying theory at all costs. After all, IBS-C and CC remain distinct with regard to response

to treatment, with, for example, osmotic laxatives being not as effective in IBS-C as they can be in CC (9), and with more novel therapies, such as linaclotide and lubiprostone, requiring different dosing regimens to treat these conditions.

The Rome classification will likely continue to evolve with increasing data from studies such as this survey from Rey *et al.* (6) The goal of the Criteria for functional GI disorders will remain to characterize discernible groups of patients and outcomes for basic, translational, and therapeutic studies in order to help the clinician best treat each patient.

CONFLICT OF INTEREST

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