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Refractory Irritable Bowel Syndrome and Functional Abdominal Pain Syndrome: Should Small Bowel Endoscopy Be Performed?

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See “Capsule Endoscopy in Refractory Diarrhea-predominant Irritable Bowel Syndrome and Functional Abdominal Pain” by Manuel Valero, Gladys Bravo-Velez, Roberto Oleas, et al., on page 570-575.

Irritable bowel syndrome (IBS) is a very common functional bowel disorder that many physicians encounter in everyday practice. Functional abdominal pain syndrome (FAPS) is less common than other functional bowel disorders and has little or no relation to physiologic events such as eating or defecation.¹ The diagnosis of these diseases is mainly based on clinical symptoms and no specific biomarkers or examinations are available. The Rome IV criteria are currently used for diagnosis.² The symptoms of IBS or FAPS, such as abdominal pain, diarrhea, and constipation, are nonspecific and inflammatory bowel disease (IBD), celiac disease, lactose or fructose intolerance, and microscopic colitis may mimic these disorders.² Aggressive diagnostic tests are not widely recommended in the absence of alarm signs (age of onset >50 years, bleeding, nocturnal diarrhea, progressive pain, unexplained weight loss, anemia, and family history of IBD or colorectal cancer).²⁻⁴ However in patients who are refractory to adjunctive medical treatment for IBS or FAPS, careful reassessment is required to exclude another cause of symptoms.

Patients with symptoms refractory to medical treatment

and no evidence of other disease on laboratory or endoscopic examination create a clinical dilemma: “does the patient really have IBS or another organic disease?” In a systematic review on the natural course of IBS by El-Serag et al., 2%–5% of patients were diagnosed with another organic disease after 6 months to 6 years of follow-up.⁵ In most studies reviewed by El-Serag et al., only laboratory testing, sigmoidoscopy, or barium enema was performed for work-up and organic diseases were mainly gastric and colonic, with only 1 case of a small bowel lesion (jejunal diverticulum) that may have been associated with bacterial overgrowth.⁵ Hence, performing direct visualization of the small bowel might change the detection rate of organic disease.

Capsule endoscopy (CE) is a noninvasive diagnostic tool for small bowel disease, and provides direct visualization. It is usually indicated in obscure gastrointestinal bleeding, polypoid syndromes, Crohn’s disease, celiac disease, and other inflammatory disorders.⁶ Owing to the noninvasive nature, CE may be used as an evaluation method in functional bowel disease to exclude organic disease in the small bowel. Some reports have indicated the diagnostic value of CE in functional bowel disease. Ohlsson et al. performed CE in 28 patients with a well-founded diagnosis of IBS.⁷ Seven patients showed abnormal findings on CE, including small bowel ulceration and erosions ($n=2$), duodenal ulcer ($n=1$), antral erosions ($n=1$), ileal diverticulum ($n=1$), and small intestinal angiectasias ($n=2$). The 2 patients with small bowel ulcers and erosions showed slightly elevated orosomucoid and C-reactive protein levels and underwent treatment with 5-aminosalicylic acid. They

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concluded that a subgroup of patients would benefit from CE.⁷ Nakano et al. evaluated 99 chronic abdominal pain patients, of whom 34 met the Rome III criteria for IBS.⁸ They were divided into IBS and non-IBS groups and 3% (1/34) and 19% (12/65), respectively, had a small bowel lesion on CE.⁸ One patient in the IBS group had nonspecific ulcers ($n=1$) while the patients in the non-IBS group had nonsteroidal anti-inflammatory drug-induced ulcers ($n=3$), Crohn's disease ($n=3$), eosinophilic enteritis ($n=3$), IgA vasculitis ($n=1$), parasitic worms ($n=1$), or ischemic enteritis ($n=1$). The low prevalence of small bowel lesions in these studies are consistent with the finding by El-Serag et al. (2%–5%);⁵ however, if limited to patients with refractory symptoms, the result may change. CE reportedly detected a parasitic infection in a refractory IBS patient whose symptoms resolved after antiparasite treatment.⁹

In the present issue, Valero et al.¹⁰ investigated the diagnostic yield and clinical impact of CE in IBS and FAPS cases refractory to treatment. A total of 65 patients were included and all had laboratory or endoscopic examinations to rule out other causes. They showed that 28 (43%) patients had abnormalities on CE, with clinically significant lesions detected in 54.5% (12/22) of the IBS group and 32.5% (14/43) of the FAPS group, which led to change in medical management in most cases. The results showed a significantly higher rate of organic disease compared with other studies. Most of the lesions detected were ulcers and villous atrophy and these lesions led to diagnosis of Crohn's disease ($n=11$) and celiac disease ($n=10$). These finding suggests that in refractory IBS or FAPS, the prevalence of undetected organic small bowel disease, especially IBD, may be much higher than expected and that CE can detect meaningful lesions that can change patient management.

In functional bowel disorders, CE may be beneficial in some patients for detection of organic small bowel disease and an alternative diagnosis. This study suggests that patients refractory to medical treatment will be good candidates for CE.

A larger randomized control trial will be needed to confirm these findings and may influence the diagnostic workup of IBS and FAPS in the future.

Conflicts of Interest

The authors have no financial conflicts of interest

Author Contributions

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