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IM - COMMENTARY

Diagnosing small bowel malabsorption

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The review article published in the present issue of *Intern Emerg Med*, from Corazza's group [1], is an in-depth description of the up-to-date clinical features of small bowel malabsorption, but at the same time offers a practical clinical approach to this difficult diagnosis.

Small bowel malabsorption often overlaps complex clinical scenarios, and is one of the most challenging diagnoses in gastroenterology. A key factor is the differential diagnosis, and this is presented starting with the pathological mimics of coeliac disease (CD), where the interplay between genes and environment (i.e. gluten) is described, and finishing with irritable bowel syndrome (IBS).

The relationships between IBS and non-motility-related gastrointestinal disorders continue to be the subject of much debate. Population-based studies have shown that many of the symptoms reported by IBS patients (particularly in the tertiary care setting) overlap with symptoms suggestive of coeliac disease or intestinal malabsorption, including lactose malabsorption [2]. One study shows that IBS-like symptoms are present in 20 % of the celiac disease population studied ($n = 150$) [3]. In a recent meta-analysis, no specific complaint could predict lactose malabsorption, with sensitivities ranging from 0 to 90 % and specificities ranging from 18 to 96 % for symptoms such as bloating, diarrhoea, flatulence, and abdominal pain in individual studies [4].

Upper gastrointestinal symptoms reported by patients with functional dyspepsia are described in CD. Prevalence of biopsy-proven CD in subjects with dyspepsia is around 1 % and is higher than in controls, but this difference is not statistically significant in a recent meta-analysis [5].

In this complex scenario, no serological clinical markers validated in clinical practice are available. However, in the review by Papadia et al., a new research tool that could change the fate of intestinal malabsorption diagnosis is described. Plasma citrulline concentration is a new single marker whose role in the field is widely debated. Papadia et al. [6] show that plasma citrulline is not affected by intestinal inflammation; moreover, the citrulline assay provides a reliable clinical index of global function, and so the nutritional prognosis, of a compromised intestine and is independent from the nutritional status.

Other recent markers, such as IgA F-actin and intestinal fatty acid-binding protein (I-FABP), in the light of some recent interesting results, may also contribute to assessing the extent of villous atrophy. As awareness, detection, and treatment for small bowel atrophy and malabsorption all improve, the laboratory's role in facilitating follow-up and monitoring is sure to increase in the near future.

Conflict of interest None.

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