Vancomycin in the treatment of inflammatory bowel disease: there is a role beyond Clostridioides difficile infection

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Conflict of interest: the authors declare no conflict of interest.

Keywords: Vancomycin. Inflammatory bowel disease. Dysbiosis. Treatment.

Dear Editor,
The development of new biological agents and small molecules has revolutionized the treatment of inflammatory bowel disease (IBD). However, many patients do not respond or gradually lose their response, necessitating the search for other therapeutic strategies (1). In this clinical case, we describe the evolution of a patient with difficult-to-manage Crohn’s disease (CD) who was treated with oral vancomycin.

Case report
We present the case of a 20-year-old female with a history of inflammatory phenotype colonic CD diagnosed in 2019, refractory to adalimumab and ustekinumab, who underwent colectomy with ileorectoanastomosis that year. Due to inflammatory activity in the rectum and neo-terminal ileum within three months, therapy with infliximab was initiated. Due to refractoriness despite adequate plasma levels, she was switched to upadacitinib and later to vedolizumab. Despite nine months of treatment with this biologic, the patient continued to have liquid stools (15 times during the day and ten at night) and fecal urgency. During evolution, tests for *Clostridioides difficile* infection were negative. The patient reported that the best symptomatic response had been with the use of antibiotics, initiating vancomycin 125 mg four times a day. After five months of treatment, the patient reported a decrease in the frequency of bowel movements to seven per day, an increase in consistency, and an absence of fecal urgency. A summary of the pre- and post-vancomycin evolution is shown in figure 1.

**Discussion**

The reduction in microbiota diversity has been recognized as part of the pathogenesis of IBD (2), with a decrease in anti-inflammatory bacteria (*Faecalibacterium prausnitzii*) and an increase in pro-inflammatory species (*Escherichia coli* and *Bacteroides fragilis*) (3) being noteworthy. Vancomycin, a low-spectrum D-Ala-D-Ala inhibiting antibiotic with poor oral absorption, has shown potential, not only in patients with IBD and primary sclerosing cholangitis (4) but also in patients with very early-onset IBD (5). While biologics with different mechanisms of action and new small molecules are now a reality, other options such as dietary changes, microbiota-targeted therapies, regulatory T lymphocytes or hyperbaric oxygen use have been suggested (1). Our clinical case suggests that vancomycin may have a role in this era of new biological therapies and small molecules, especially for refractory patients with colon involvement. Studies with a larger number of patients will help define the most appropriate dose and duration of this therapeutic strategy.
References

Fig. 1. Evolution showing significant clinical improvement (A) and endoscopic improvement (B and C) pre-treatment and post-treatment with vancomycin (ADR: adverse drug reaction; AZA: azathioprine; ADA: adalimumab; IFX: infliximab).