



# REVISTA DE GASTROENTEROLOGÍA DE MÉXICO

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## EDITORIAL

### Editorial comment on the epidemiologic trend of pediatric inflammatory bowel disease in Latin America: The Latin American Society for Pediatric Gastroenterology, Hepatology and Nutrition (LASPGHAN) Working Group<sup>☆</sup>



### Comentario editorial sobre tendencia epidemiológica de la enfermedad inflamatoria intestinal en pacientes pediátricos en América Latina: Grupo de Trabajo de Enfermedad Inflamatoria Intestinal de la Sociedad Latinoamericana de Gastroenterología, Hepatología y Nutrición Pediátrica (SLAGHNP)

Inflammatory bowel disease (IBD) comprises ulcerative colitis (UC), Crohn's disease (CD), and IBD unclassified (IBDU). The incidence and prevalence of IBD have increased in pediatric patients in nearly all regions of the world.<sup>1</sup> The largest number of epidemiologic and research studies on the subject have been published in the European and North American countries that also report the highest incidence and prevalence figures. In those countries, CD has a greater prevalence than UC, and 25% of the cases of IBD are calculated to initially present before 18 years of age, predominantly in males.<sup>2</sup>

IBD tends to be more severe and progress more rapidly in pediatric patients than in adults. Children have a greater risk for upper gastrointestinal involvement, extraintestinal disease, and complications of strictures and fistulas.<sup>3</sup> The appearance of symptoms of IBD, within the first 3 years of life, has been associated with greater severity and the involvement of the longest segments of the intestine. The

etiology of the disease is unknown, but it appears to result from the antigenic stimulation of an altered immune system, in a genetically predisposed individual. The effect of genetic factors varies, depending on whether the disease is CD or UC, or if its appearance is early or late. Twenty-nine percent of pediatric IBD patients have a family history of the disease. That percentage increases to 44% in children under 3 years of age, with UC. The first genes associated with IBD to be identified were NOD2 and IBD5, followed by the discovery of more than 15 loci for UC and more than 30 for CD. Genes affecting IL-10 cause the more severe forms of the disease. The concordance rate for twins is 50%.<sup>4–5</sup>

The environment is an important factor in IBD manifestation. The highest statistics are reported in the European countries, the United States, Canada, Australia, and Israel. Risk is modified in persons migrating from low-prevalence countries to high-prevalence regions, adopting that of the latter. Diet, the gut microbiota, and the pace of urban life are environmental factors that affect the development of IBD in susceptible patients.<sup>1</sup>

There is little information in the Latin American literature on IBD epidemiology. The *Revista de Gastroenterología de México* recently published online a survey on IBD epidemiology in 9 Latin American countries, that described the situation, not only with respect to the epidemiologic sphere, but also explored the diagnostic and therapeutic approaches regarding UC, CD, and IBDU.<sup>6</sup> Fourteen pediatric gastroen-

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terologists responded, encompassing 607 patients between 2 and 16 years of age, over a 10-year period. Seventy-eight percent of the patients were diagnosed with UC, 17% with CD, and the remaining patients with IBDU. Strikingly, the prevalence of UC continues to predominate that of CD, a finding similar to results reported in developed countries 3 and 4 decades ago. Contrastingly, CD is now predominant in those industrialized countries.<sup>7</sup> Nevertheless, the sample of the Latin American survey only covered data from 9 countries and does not represent the entire continent. The participation of Brazil, a country with a large population, was not representative, given that only 33 Brazilian cases were reported. Nevertheless, a clear trend of increasing incidence of IBD in Latin America was described. The survey calculated an annual increase of 5.1% for UC and 3.4% for CD. IBDU was only sporadically reported. An international systematic review, covering 32 countries, reported a significant increase in the incidence of CD at 60% and of UC at 20%, confirming IBD as a global disease that impacts the pediatric population.<sup>8</sup>

The information provided by the survey, despite its many limitations, is very valuable because it shows how IBD is increasingly being diagnosed and that the growing trend in Latin America is similar to that of the rest of the world, albeit with time lags, as the authors of the survey convey. It is also important to alert pediatric gastroenterologists to the fact that said trend suggests that IBD is going to increasingly affect more patients, thus requiring greater diagnostic and therapeutic capacity.

Other interesting aspects revealed by the survey were the diagnostic tools and therapeutic resources of each participating zone. Endoscopic, histopathologic, and imaging studies were the support for diagnosing and classifying the disease. Colonoscopy was the diagnostic resource utilized in 100% of the cases, but the terminal ileum was able to be viewed in only 10.7%, which could be a factor in underestimating CD. Upper gastrointestinal endoscopy was reported in just 30% of the cases, which, again, could limit the number of cases diagnosed with CD. Histopathologic studies were performed in more than 99% of the cases, verifying the clinical and endoscopic impressions of IBD. Imaging studies were also carried out in the majority of patients; 78% for UC and 97% for CD. Although the imaging modalities were not specified in the report, it can be assumed that contrast-enhanced studies of the colon and terminal ileum predominated. Other studies that could aid in evaluation of the disease, such as magnetic resonance enterography, high-resolution transabdominal Doppler ultrasound, capsule endoscopy, and computed tomography, were not mentioned in the survey.

Two-thirds of the UC patients had involvement of the entire colon, 18% presented with left-sided colitis, and 14% with proctosigmoiditis, which is consistent with reports on pediatric patients in the literature that have found pancolitis to be the most frequent presentation.<sup>9</sup> The colon was affected in almost 60% of the patients with CD, the rectum and perineum in 23%, and the small bowel in 19%. Those are frequent findings in pediatric patients, whereas small bowel involvement is more frequently reported in adults.<sup>10</sup>

The survey explored the therapeutics utilized in cases of UC and CD. Notably, despite the characteristic budgetary limitations of the healthcare sector in Latin America,

the majority of the participating pediatric gastroenterologists had access to the most widely used drugs. The list included steroids, thiopurines, 5-ASA derivatives, and biologic agents, such as infliximab and adalimumab.

The authors of the survey modestly and accurately recognized that the study had limitations, such as its retrospective, nonrandomized, populational design that was based on the review of medical records, with its consequential biases. However, they emphasized the main resulting information, which was the confirmation of the increasing trend in incidence and prevalence of IBD in Latin America, a strong and widespread fact in the international literature.

The present report, based on a limited survey, does not represent the situation of pediatric IBD in Latin America, which the authors themselves, recognize. As stated in the title of their article, they described only a trend detected in certain areas of certain countries. Participation of all the well-represented countries would be worthwhile, applying a strict methodology to reach objective conclusions. Likewise, a second attempt should include more specific clinical parameters, in relation to both intestinal and extraintestinal disease, as well as the biochemical parameters available in the area as diagnostic aids. I congratulate the authors and the LASPGHAN on their effort to begin carrying out studies on the behavior of IBD in our Latin American countries. IBD is still an under-recognized condition, and its upward trend compels us to increase human and technologic resources.

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## Conflict of interest

The author declares that there is no conflict of interest.

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