

Title:

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Clinical-histological correlation of various symptoms in the diagnosis of pediatric Crohn's disease

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Dear Editor,

Crohn's disease (CD) is a relapsing-remitting inflammatory bowel disease (IBD) affecting the gastrointestinal tract (1). Its symptoms are nonspecific, with weight loss, diarrhea, and abdominal pain being classic, though their diagnostic utility is controversial (2). We evaluated the clinical-pathological association of different symptoms in CD through an analytical study of patients under 15 years of age who underwent esophagogastroduodenoscopy and ileocolonoscopy in a pediatric hospital between 2015-2022 due to suspected IBD (Reg. 341E/2023). The prevalence of various symptoms and their correlation with histopathological abnormalities were compared between patients with Crohn's disease (CD) and those without the disease (non-CD). Of the 502 endoscopies performed during this period, 80 were indicated for suspected IBD, of which 22 CD patients and 14 non-CD children were included. The latter were selected as a comparative group since, despite being clinically comparable to CD patients, their histology was completely normal. Patients with ulcerative colitis or diagnoses other than IBD were excluded. Consistent with previous reports, in our study, 36% of CD patients reported acute abdominal pain (AAP), while none of the non-CD participants had this symptom ($p=0.011$). However, chronic abdominal pain (CAP) was more common in the non-CD group (71%) than in the CD series (40%), suggesting that pain chronicity may point to functional etiologies. Growth delay is common in CD patients, although a considerable number of children are overweight at diagnosis, as overweight and obesity are currently highly prevalent (3). Therefore, obesity or the absence of growth delay does not exclude an IBD diagnosis. We did not document height or weight deficits in CD patients, although weight loss was a frequent sign in this population (54%), compared to only 21% of non-CD subjects ($p=0.049$). Approximately 40% of CD patients present with bloody stools (4). In our series, the rate of digestive bleeding was higher, with 54% (12/22) of CD patients experiencing intestinal bleeding: rectal bleeding and bloody diarrhea (18% and 22%, respectively), compared to 7% and 0% in the non-CD population. Similar to the literature, we found one case each of fissure, abscess, and perianal fistula in the CD group, with none in the non-CD patients (**Table 1**). Although this study has limitations, our results suggest that CAP is highly prevalent in functional disorders

unrelated to CD and should prompt consideration of differential diagnoses. Meanwhile, AAP, bloody diarrhea, or mucobloody stools are associated with a histological diagnosis of CD, reaffirming the importance of these symptoms in guiding diagnostic and therapeutic strategies.

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TABLES

Table 1. Absolute and relative frequency of symptoms in the analyzed groups and their association with the histological diagnosis of Crohn's disease.

Variable	non-CD (n = 14)	CD (n = 22)	p Value
Age (years)	9.9 ± 3.5	11.8 ± 2.1	0.062
Female n (%)	4 (28.6 %)	10 (45.5 %)	0.311
Male n (%)	10 (71.4 %)	12 (54.5 %)	
Weight (kg)	32.7 ± 12.7	38.3 ± 8.8	0.129
Height (m)	1.37 ± 0.24	1.51 ± 0.14	0.048
BMI	16.5 ± 2.4	16.6 ± 1.8	0.982
AAP n (%)	0 (0 %)	8 (36.4 %)	0.011
CAP n (%)	10 (71.4 %)	9 (40.9 %)	0.074
RAP n (%)	2 (14.3 %)	2 (9.1 %)	0.629
Occasional diarrhea n (%)	4 (28.6 %)	8 (36.4 %)	0.629
Persistent diarrhea n (%)	4 (28.6 %)	8 (36.4 %)	0.629



Nocturnal diarrhea n (%)	1 (7.1 %)	3 (13.6 %)	0.546
Occasional vomiting n (%)	2 (14.3 %)	2 (9.1 %)	0.629
Persistent vomiting n (%)	0 (0 %)	0 (0 %)	-
Weight loss n (%)	3 (21.4 %)	12 (54.5 %)	0.049
Perianal disease	0 (0 %)	3 (13.5 %) n = 1 fissure n = 1 fistula n = 1 abscess	0.555
Rectorrhagia n (%)	1 (7.1 %)	4 (18.2 %)	0.350
Bloody diarrhea n (%)	0 (0 %)	5 (22.7 %)	0.055
Stools with blood n (%)	1 (7.1 %)	2 (9.1 %)	0.143

BMI: Body Mass Index; **AAP:** Acute abdominal pain (<3 months); **CAP:** Chronic abdominal pain (≥3 months); **RAP:** Recurrent abdominal pain.