

Session/Poster#

Presenter

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**Relationship between fecal calprotectin and H. pylori infection in children**

Rationale: Fecal calprotectin (FC) is a non-invasive inflammatory marker used in the diagnosis and follow-up of inflammatory bowel diseases (IBD). It is unclear as to the potential of other chronic diseases to cause FC elevation. One possible contributor could be H. pylori infection, which can drive a neutrophilic response leading to elevated FC. Some international studies have suggested a linkage, but there is no data in the United States. In this study we sought to assess for any association between FC levels and H. pylori infection in children.

Methods: A single-center retrospective study was conducted in patients who underwent esophagogastroduodenoscopy (EGD) between Jan 2017 and Oct 2022. Patients aged 6-18 years old who had a FC level within 6 months prior to the EGD and who were tested for H. Pylori were included. Patients with known IBD, celiac disease, and other intestinal conditions were excluded. Categorical data were analyzed using chi-square tests. Student's t-test was performed for normally distributed data, and Mann-Whitney U test for non-normally distributed data.

Results: 46 patients were captured. 16 (34.8%) patients tested positive for H. pylori and 30 (65.2%) tested negative. There were no statistically significant differences between the two groups with regards to age, sex, race, or BMI. The main initial complaint was abdominal pain (80.4%) followed by weight loss/poor weight gain (45.7%). Mean FC level was significantly elevated in patients with H. pylori infection (95.1-80.2) when compared to patients without the infection (56.3-40.6) ( $p=0.049$ ). The rest of the laboratory findings were not statistically significant between both groups.

Conclusions: FC was significantly increased in pediatric patients (>5 years old) with H. pylori infection. In patients with mildly elevated FC, H. pylori infection may be considered an adequate explanation if no other markers concerning for IBD are present. A larger study is indicated for conclusive support.