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# Celiac Disease Presenting as Intussusception From Giardia Lamblia

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- Intussusception occurs when one segment of intestine invaginates into the lumen of the adjacent intestine.
- Regional enteritis caused by Giardiasis, and other infections has been implicated in intussusception.
- Celiac disease is an autoimmune enteropathy caused by the ingestion of gluten.
- Several case reports of Giardiasis mimicking Celiac disease exist in the literature and several studies have examined the presence of Giardiasis in Celiac patients.
- Intussusception has been found to be more common among children with Celiac disease than in healthy individuals.

# Case Presentation

- 6 year old male presents with 1 week of abdominal pain, nausea, and intermittent non-bloody, non-bilious emesis, and diarrhea.
- Abdominal sonography revealed multiple small bowel-small bowel intussusceptions discovered.
- Patient treated supportively with complete resolution of symptoms.
- 3 days later patient presented with return of symptoms and ultrasound revealing 3 new small bowel-small bowel intussusceptions.
- Patient treated supportively, and workup initiated with stool testing positive for Giardia lamblia as well as tissue transglutaminase IgA: 137 U/mL
- Given the potential association with Giardiasis, it was determined suitable to let the patient recover from acute illness and repeat Celiac serologies at outpatient follow up 8 weeks following discharge.
- At follow up, tissue transglutaminase IgA: 100 U/mL, and Deamidated Gliadin IgA Ab: 107 U/mL.
- The patient's subsequent Endoscopy was visually normal, but histopathology revealed Duodenal mucosa with increased lymphoplasmacytic infiltrate in the lamina propria, increased intraepithelial lymphocytes and focal mild villous blunting.
- Since starting Gluten free diet patient has not had recurrence of intussusception, and Giardiasis has resolved.
- Interestingly, the patient's monozygotic twin brother who was clinically asymptomatic was also found to have positive Celiac serologies, and diagnosis was confirmed by EGD with biopsies.

## Discussion

### DISCUSSION

- Regional enteritis caused by Giardiasis, and other infections has been implicated in intussusception.
- The resultant enteritis may cause mucosal edema and inflammation profound enough to act as a lead point in small bowel-small bowel intussusception.
- Intussusception as a presenting symptom of Celiac disease has rarely been reported in Pediatric literature, while there are multiple case reports in adult celiac disease.
- It has been suggested that Giardiasis has caused clinical disease which mimics celiac disease in symptomatology and histopathology.
- The case of Giardiasis and intussusception both presenting as Celiac disease has not been reported.

### CONCLUSIONS

- It is critical to evaluate patients with intussusception for both infectious and non-infectious etiologies during your routine workup.
- Regardless of cause (in this case Giardiasis), Celiac disease should be considered in patients with intussusception.
- Prompt recognition and timely diagnosis can prevent complications from Celiac disease.

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