Acta Scientific Gastrointestinal Disorders (ISSN: 2582-1091)

Volume 7 Issue 3 March 2024

Case Report

Celiac Disease: An Unusual Cause of Dysphagia

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Received: February 20, 2024

Published: February 28, 2024

Abstract

Celiac disease is gluten intolerance in genetic predisposed individuals.1 These patients mostly present with loose stool, however dysphagia is a rare form of presentation in them. We hereby report a case of celiac disease who had presented to us with symptoms of dysphagia and was managed with gluten free diet along with dilatation of the stricture via savary dilator..

Keywords: Celiac Disease; Dysphagia; Dilatation

Case History

A 27 year old male with no prior co-morbid, was evaluated for difficulty in swallowing for solids along with weight loss for the last 4 months. His dysphagia was progressive in nature, occurring with solid food intake and was linked with weight loss of 3 kgs in the past 4 months which was unintentional. He had no prior history of loose stools, fever, and abdominal pain or of vomiting neither any history of tuberculosis (Tb) or Tb contact nor any account of malignancy in his family. He had no history of food or milk allergy.

His labs reports showed hemoglobulin (HB) 13.8 g/dl, MCV 83 FL, TLC 4.5 x 10^9 U/L, Platelets 227 x 10^9 U/L, ESR 22mm/Hr. Rest of the parameters including renal and liver function tests were normal.

His local physician advised a barium swallow, which was normal. Hence he was kept on proton pump inhibitors along with prokinetics , which resulted in minor improvement in his symptoms. However, he was still not at ease and for complete relief of his symptoms, he was referred to our hospital and an upper GI endoscopy was planned.

An Upper GI endoscopy was performed at our centre, which revealed a narrowing 15 cm from the incisors, that was later dilated with 7mm, 9mm savary dilator. Later on the scope was reintroduced to see the tear (shown in image I)and further examination of the stomach and duodenum was done, which revealed only moderate duodenal fissuring so multiple biopsies were taken from the duodenal bulb and the distal part.

His duodenal biopsy reported revealed Sprue Marsh class 3 A(shown in image II), so a tissue transglutaminase (TTG) serology was request and TTG IgA and IgG both turned out to be positive. He was started on gluten free diet in consult with a skilled dietician and that lead to a significant improvement in his symptoms. His symptoms of dysphagia had completely resolved and a repeat EGD done 1 year later revealed normal looking esophagus, stomach and duodenum with biopsy of the distal duodenum showing occasional lymphocytes only.

Discussion

Celiac disease is gluten sensitivity in genetic predisposed individuals, which can lead to various gastrointestinal symptoms [1].

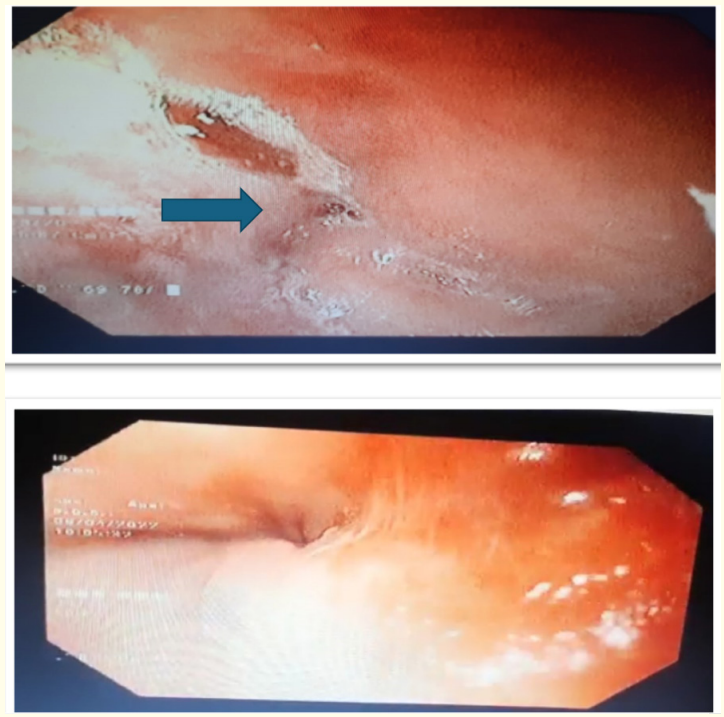

Figure 1: EGD showing Pre dilatation narrowing as shown by the arrow. Image B shows the post dilatation effects with mucosal tear evident.

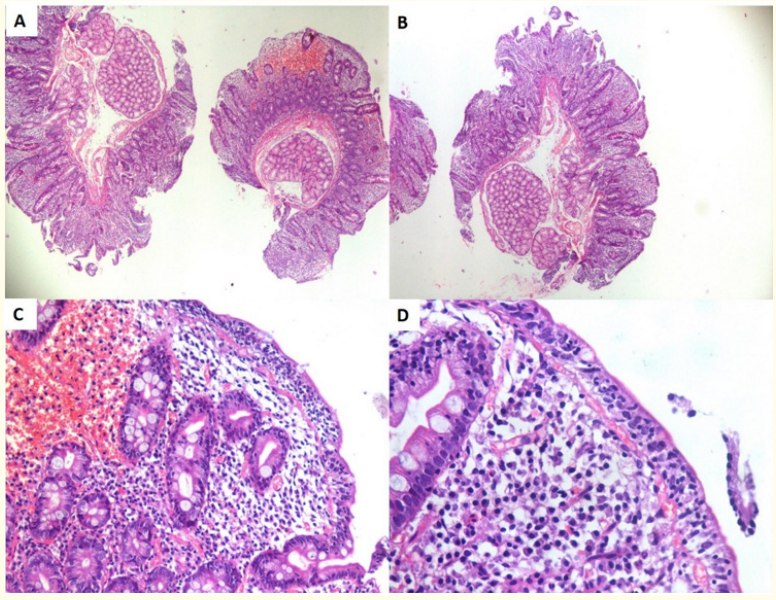

Figure 2: Histopathological features of celiac disease on duodenal biopsy. A. Two fragments of bladder mucosa with severe villous atrophy and crypt hyperplasia. Brunner's glands can be seen in submucosa in both fragments. (HE, ×50). B. One of the fragments with severe villous atrophy and crypt hyperplasia. Brunner's glands can be seen in the submucosa of the duodenum. (HE, ×100). C. Medium-power view showing increased intraepithelial lymphocytes in the surface epithelium. (HE, ×200). D. High-power view showing increased intraepithelial lymphocytes in the surface epithelium. Many plasma cells are seen in the lamina propria. (HE, ×400).

Gluten are alcohol soluble proteins found in various food items like creals, kamut, rye, barley etc [1].

Patients who are diagnosed with celiac disease may either be asymptomatic or can present with abdominal pain, loose stools, steatorrhea, weight loss, fatigue or deranged liver function tests with lab findings suggestive of anemia [2].

Dysphagia, an uncommon symptom for patients having celiac disease, can occasionally be appreciated in these patients [3]. Esophageal dysmotility along with reflux symptoms are appreciated in patients having celiac disease [3].

Another study suggested that the prevalence of esophageal symptoms in those diagnosed with celiac disease hovers around 45.5% [4].

Although celiac disease is a recognized cause of iron deficiency anemia, Alfaris A et al in their case report showed how Plummer Vinson syndrome could be misdiagnosed with celiac disease as a cause of iron deficiency anemia presenting with difficulty in swallowing [5].

The main mechanism by which celiac disease causes dysphagia remains largely unknown, though nutrition deficiencies or neuropathic effects may play a role [5,6].

It is said that other common perpetrators of dysphagia, which are also linked to celiac disease like plummer vinson syndrome and eosinophilic esophagitis should be ruled out first before linking the difficulty in swallowing as a sequlae of celiac disease [6].

A case series done by Harary et al showed a celiac disease patient with a month's history of dysphagia that responded to gluten free diet [7], a similar finding to what was noted in our case.

Other treatment options also include dilating the stricture via the use of savary dilator as demonstrated by Andrew., *et al*. [6].

We employed both strategies in our case, namely dilatation of the stricture and kept him on gluten free diet which lead to drastic improvement in his symptoms. An upper GI endoscopy was later repeated to demonstrated the resolution of the stricture along with mucosal healing in the distal duodenum.

Conclusion

Our case demonstrates a unique presentation of patients having celiac disease and shows how to manage symptoms of dysphagia in them.

Bibliography

1. Caio G., *et al.* "Celiac disease: a comprehensive current review". *BMC Medicine* 17 (2019): 142.

2. Hill ID., *et al.* "NASPGHAN clinical report on the diagnosis and treatment of gluten-related disorders". *Journal of Pediatric Gastroenterology and Nutrition* 63.1 (2016): 156-165.

3. Lee A., *et al.* "Dysphagia as a Presentation of Celiac Disease". *ACG Case Reports Journal* 7.4 (2020): e00359.

4. Goyal O., *et al.* "Celiac Disease Presenting with Dysphagia: A Common Disease with a Rare Presentation". *Tropical Gastroenterology* 40.3 (2020): 114-116.

5. Alfaris A., *et al.* "Could Plummer-Vinson Syndrome Be Associated with Celiac Disease?" *International Medical Case Reports Journal* 16 (2023): 425-431.

6. Andrew C Berry., *et al.* "Dysphagia as the Sole Initial Presentation of Celiac Disease". *International Journal of Celiac Disease* 3.3 (2015): 108-109.

7. Small- Harary L., *et al.* "Unusual Presentations of Celiac Disease in the Pediatric Population: A Case Series". *British Journal of Gastroenterology* 2 (2020): 1.