

Biopsy-Confirmed Celiac Disease After COVID-19 Infection

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Background

- Post-COVID gastrointestinal (GI) symptoms are increasingly common in clinical practice and can sometimes overlap with other common, treatable GI disorders, such as Celiac Disease (CeD).
- We present the case of post-COVID GI symptoms subsequently diagnosed with CeD.

Case Description

- A 28-year-old man with no prior medical history presented with nausea, vomiting, poor appetite, and weight loss after recovery from PCR-confirmed COVID-19 infection.
- He endorsed an unintentional 40-pound weight loss with fatigue over 4 months.
- He denied constipation or diarrhea.
- Symptoms did not improve with a proton pump inhibitor trial.
- Family history was remarkable for a brother with type 1 diabetes

Objective Data

- Physical exam was remarkable for obesity, BMI 34.3
- A recent CT abdomen and pelvis was unrevealing.
- Tissue transglutaminase IgA was elevated at 57 U/mL (normal <19 U/mL).
- He had vitamin D, vitamin B12, and folate deficiencies

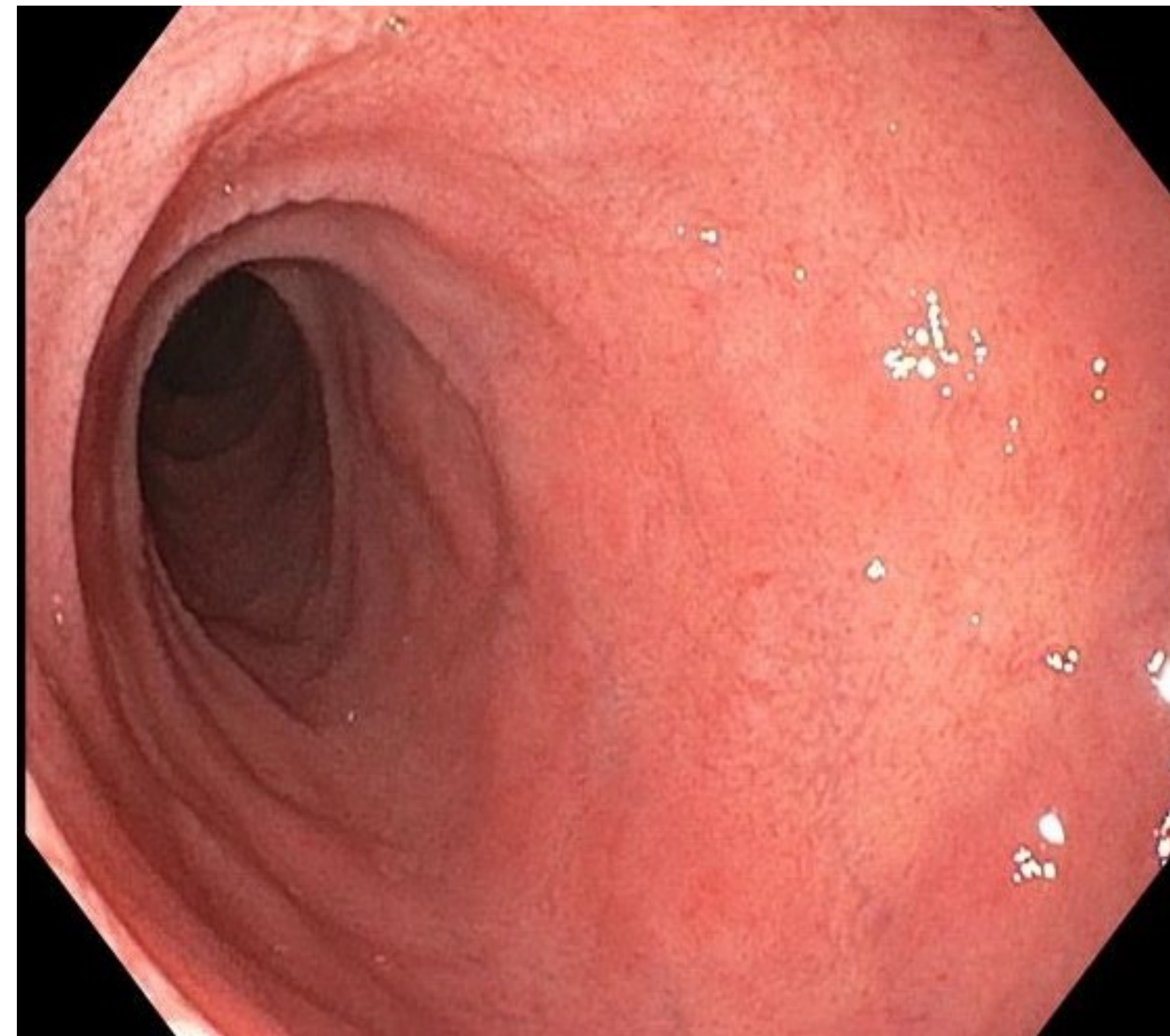
Follow-up

- Symptoms resolved on a gluten free diet.
- Tissue transglutaminase IgA normalized (9 U/mL) within 6 months of treatment

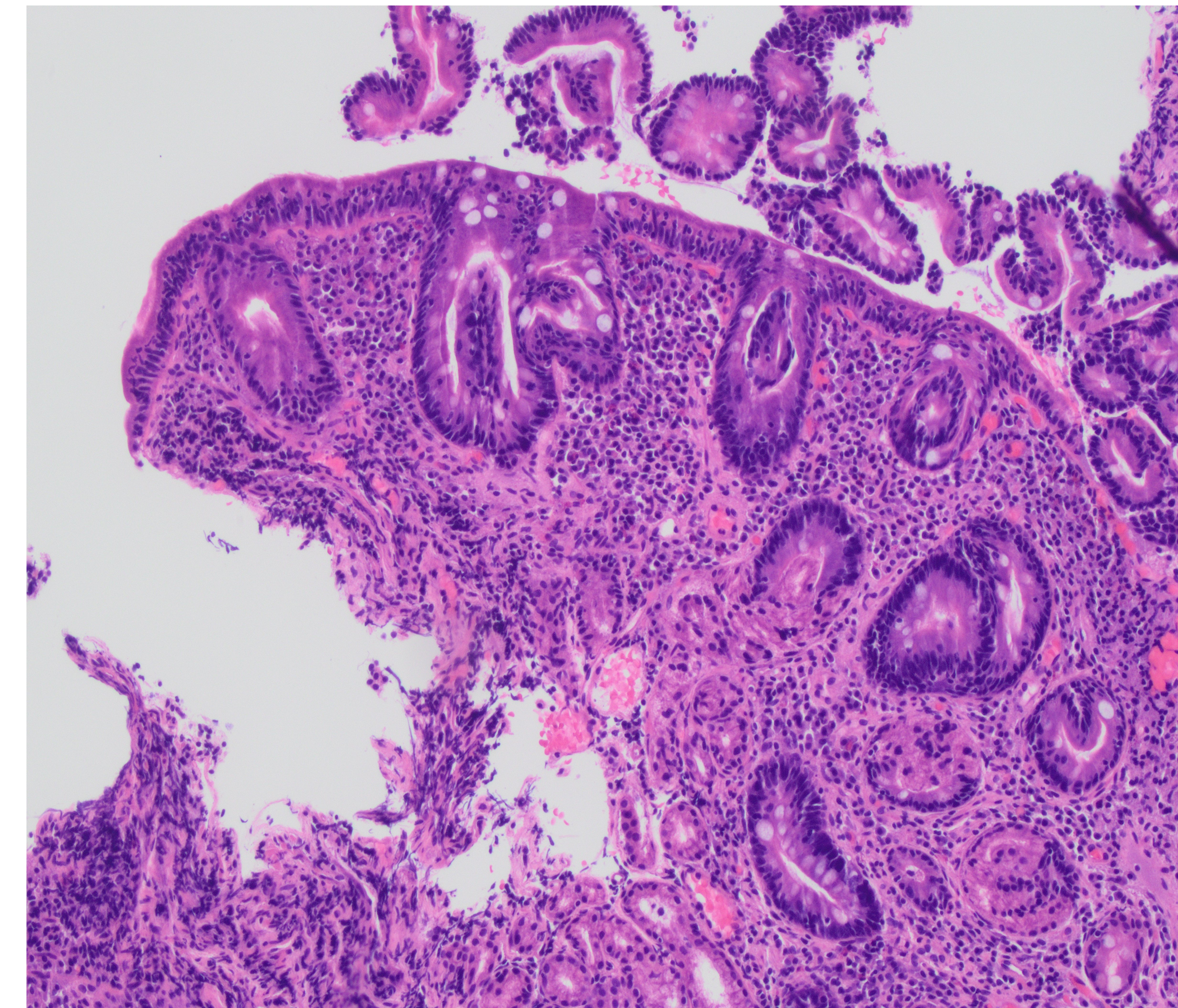
Discussion

- Post-COVID symptoms are varied, non-specific, and overlap with other GI conditions.
- There has been a reported increased prevalence of CeD in all age groups during the SARS-CoV-2 pandemic¹.
- SARS-CoV2 enters mucosal membranes via angiotensin-converting enzyme 2, which is present in the small bowel mucosa².
- Our case highlights that weight loss, and other “red flag” symptoms should prompt further evaluation despite being a common post-COVID symptom.
- We contemplate what role, SARS-CoV-2 could have in disrupting small bowel mucosa integrity, potentially leading to CeD in genetically susceptible individuals.

Workup



Duodenal scalloping and atrophy



Biopsies confirmed CeD, Marsh 3B

1 Trovato CM et al. COVID-19 and celiac disease: A pathogenetic hypothesis for a celiac outbreak. International Journal of Clinical Practice. 2021;75(9).

2 Hoffman M et al. SARS-CoV-2 cell entry depends on ACE2 and TMPRSS2 and is blocked by a clinically proven protease inhibitor. Cell. 2020;181(2):271-280.