

Introduction

- Immune checkpoint inhibitors (ICIs) have improved the survival rate and prognosis of patients with several advanced malignancies by enhancing the immunologic system and augmenting the antitumor cytotoxic T-lymphocyte response.
- However, their side effects are being observed more often.
- They are called immune-related adverse events (irAEs), such as hepatitis, colitis, and other immune reactions.

Case Report

- 49 y/o Female evaluated for IDA in the GI clinic.
- Pt Had history of malignant melanoma diagnosed eight years ago. Radiation therapy was initiated, and at her three months follow-up with PET-scan involvement of the left femur and hip and multiple nodules in abdominal and esophageal areas were found and was deemed **advanced metastatic malignant melanoma and was started on Pembrolizumab.**
- After receiving this treatment for a year, she was in remission and has continued to have treatment every twelve weeks.
- Upper endoscopy and Colonoscopy were done to evaluate the etiology of IDA.

Case Report (Continuation)

- **Duodenal biopsy** showed areas of inflammation of the first and second portions of the duodenum.
- The pathology report showed flattened villi and crypt hyperplasia; immunohistochemical showed increased CD3 + T cell lymphocytes in the surface epithelium consistent with Celiac
- Blood tests was Positive TTG-IgA and HLA-DQ2. She was then placed on Gluten-free diet and proton pump inhibitors, showing improvement in the anemia and continues to be in remission.

Imaging

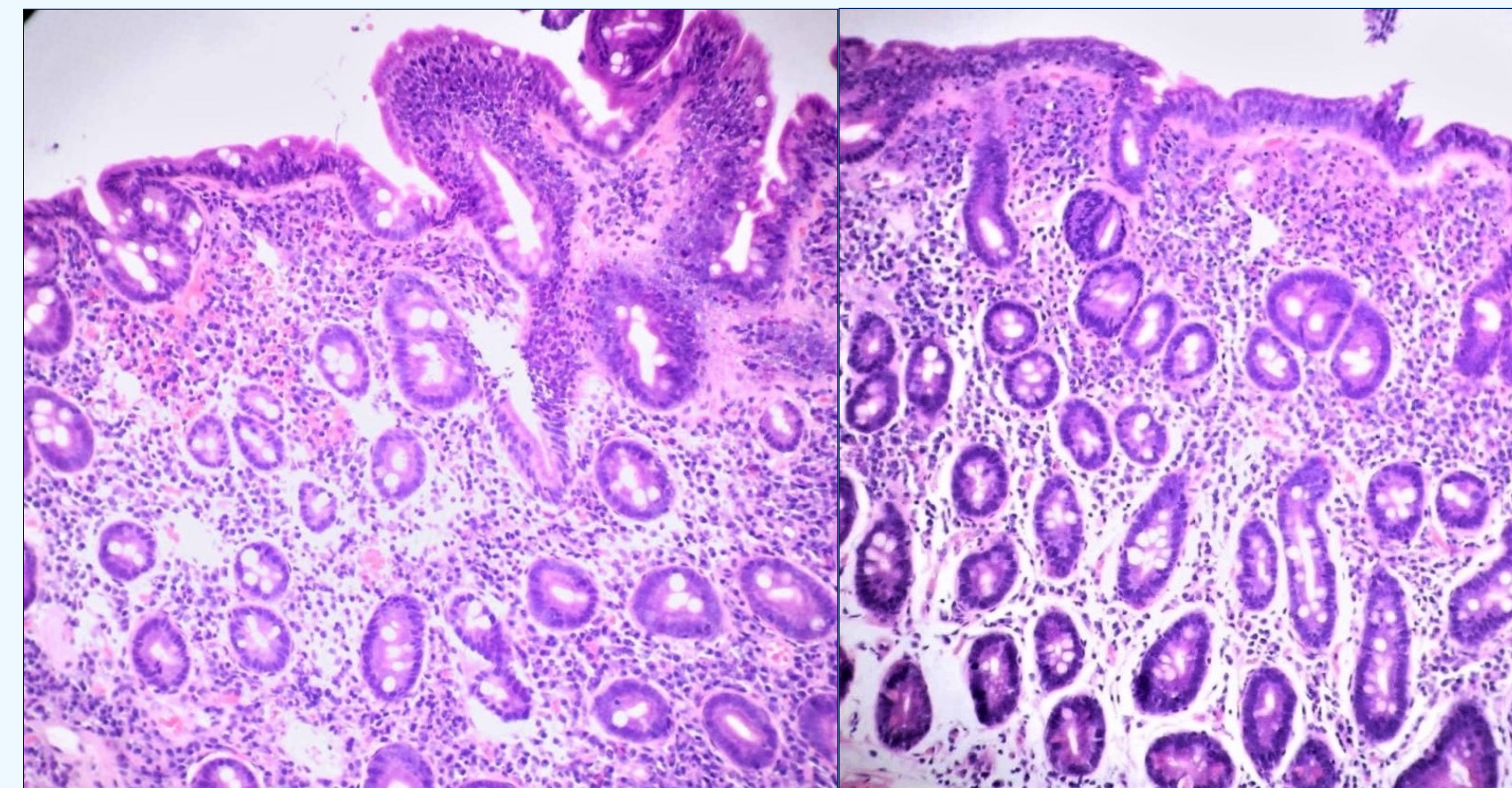


Image 1 :
A,B - H&E stain 40X showing flattened villi with crypt hyperplasia

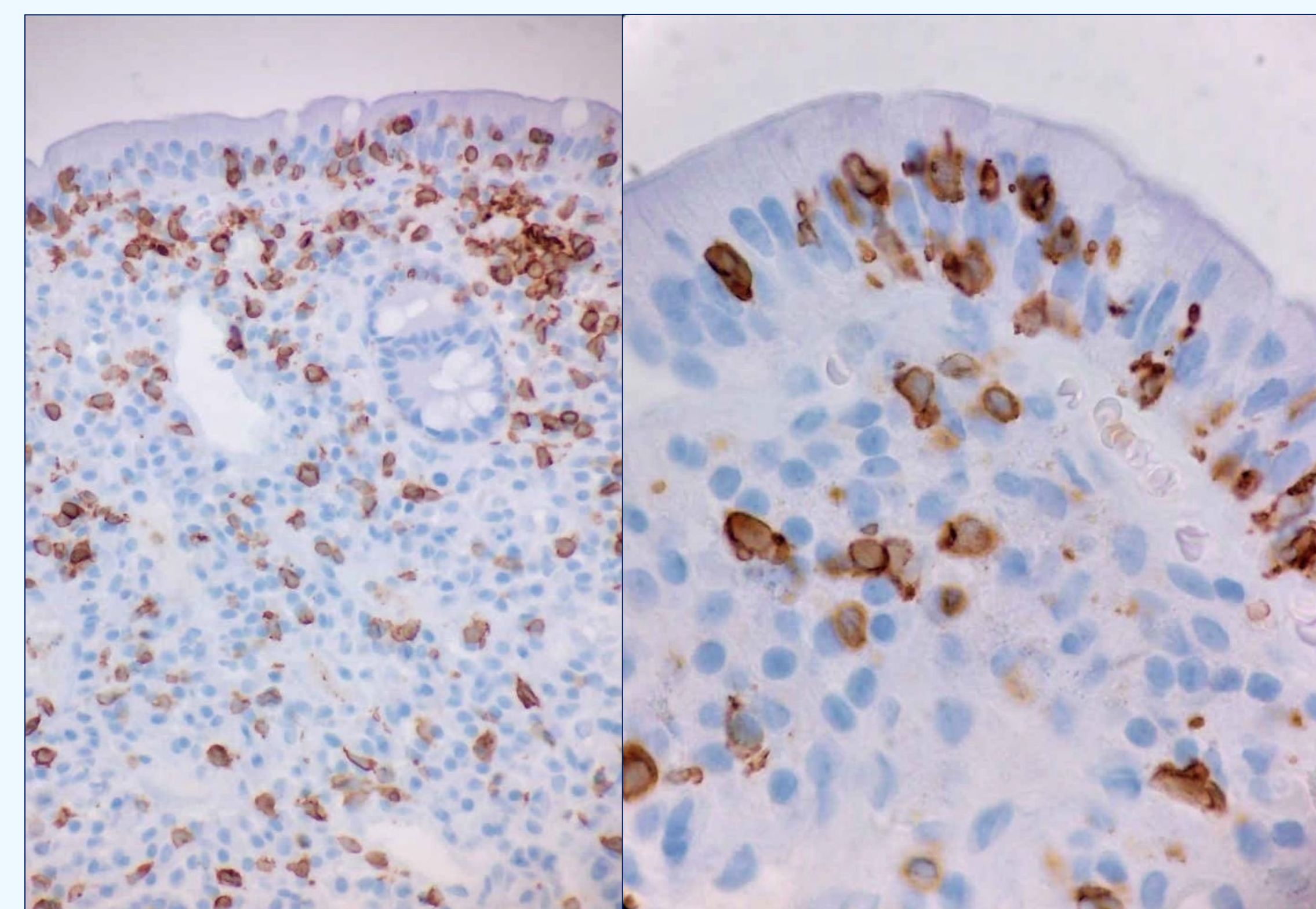


Image 2:
C,D - low and high-power view CD3+ T cell near the surface epithelium

Discussion

- Celiac disease is an immune-mediated inflammatory disorder that affects the small bowel, triggered by the consumption of gluten.
- Gluten hypersensitivity leads to activation of T-cells in the lamina propria, producing mucosal inflammation and villous atrophy.
- Commonly resolves after withdrawal of wheat and cereals from the diet.
- Pembrolizumab is a monoclonal antibody that works by blocking programmed death receptor-1 (PD -1), it is used in the treatment of advanced cancer
- However, it can cause irAEs during its use or even after.
- Only a few cases have been reported in the literature of pembrolizumab-induced celiac disease.

Conclusions

- We would like to emphasize the importance of a proper evaluation and follow-up of celiac disease in patients on Pembrolizumab treatment.