Severe Dysphasia with Eosinophilic Esophagitis Pattern of Injury and Autoimmune Gastritis Related to Pembrolizumab Therapy

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Introduction

- Immune checkpoint inhibitor (ICI) therapies are effective treatments of many cancer types.
- ICI therapy can be associated with immune-related adverse effects (irAEs).
- We present a 67-year-old man with NSCLC who developed severe dysphasia with an eosinophilic esophagitis (EoE) pattern of injury on histopathology and concomitant autoimmune gastritis while on pembrolizumab maintenance therapy.

Case Presentation

- A 67-year-old man with NSCLC on 3 years of maintenance pembrolizumab with stable disease presented to GI clinic for evaluation of progressively worsening solid and liquid food dysphagia with regurgitation.
- Surveillance CT scans prior to advent of symptoms showed stable mediastinal lymphadenopathy with stable external compression of the mid-esophagus.
- A barium swallow study showed narrowing of the mid-esophagus.

Case Presentation (Continued)

- An EGD was performed and showed mid-esophageal lumen narrowing. Biopsies were obtained from the distal esophagus and showed up to 42 intraepithelial eosinophils (Eo) per high power field, consistent with an EoE pattern of injury.
- A subsequent EGD with stomach mapping prior to initiation of therapy showed concurrent autoimmune gastritis with no increase of Eo infiltrates. PPI therapy twice a day was initiated but the symptoms did not improve after two months. Topical glucocorticoid therapy with budesonide was then started. Despite dual therapy, his dysphagia progressed.
- Pembrolizumab was discontinued and docetaxel with ramucirumab was started, which resulted in a complete resolution of his dysphagia symptoms. Patient was maintained on PPI therapy with a plan to repeat EGD.

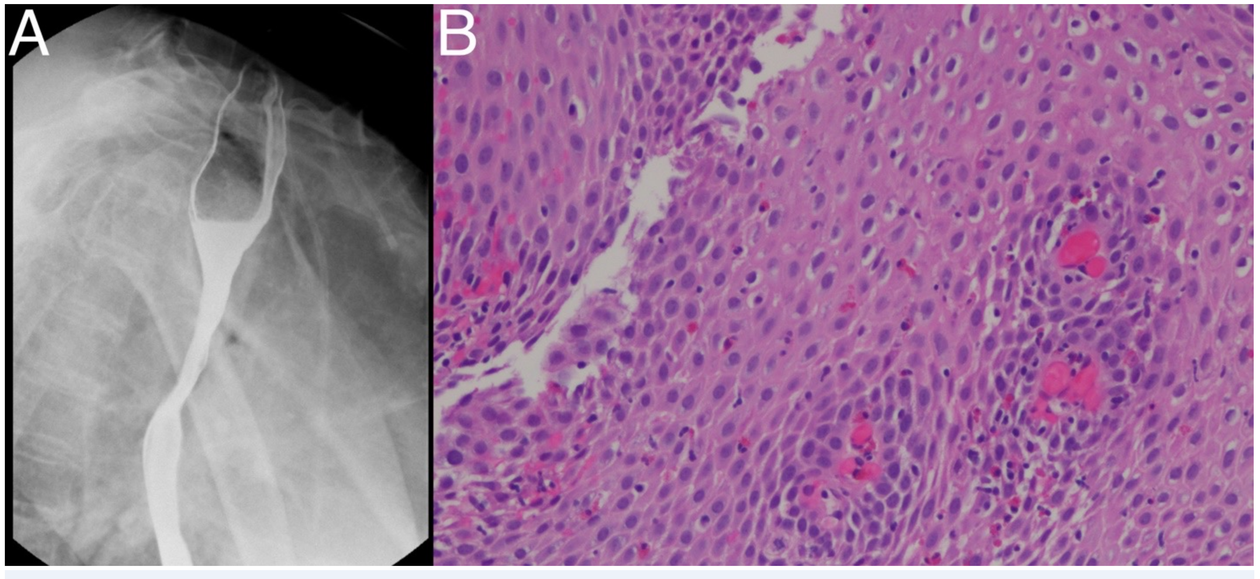

Figure 1A – Mid-esophageal narrowing on barium swallow study

Figure 1B – Intraepithelial eosinophilia consistent with EoE

Discussion

- While GI irAEs are increasingly recognized, ICI-EoE is a rare entity. In the literature, only one other case of ICI-EoE has been reported.
- This patient's dysphagia in the context of >15 intraepithelial Eo per high power field without other identifiable etiologies of increased esophageal Eo, and the resolution of symptoms with the discontinuation of pembrolizumab is consistent with ICI-EoE.
- In addition, the patient had concomitant autoimmune gastritis, which is also a rare but increasingly recognized irAE. Our case demonstrated both entities presenting in one patient.
- Treatment of irAEs often involves discontinuation of the ICI. Refractory cases may require systemic immunosuppression with corticosteroids or biologic therapy.