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Havoc In The Gut: Ipilimumab-induced Prolonged Steroid Dependent Autoimmune Gastroenterocolitis

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BACKGROUND

- Ipilimumab has been shown to improve overall survival in patients with advanced melanoma.
- Ipilimumab is a human monoclonal antibody that blocks CTLA-4, a protein receptor on T cells that results in therapeutic upregulation of cytotoxic T cells that have anti-tumor effect.
- However, ipilimumab can cause immunemediated effects that range from mild to life-threatening conditions colitis, fulminant hepatitis, nephritis, hypophysitis, and toxic epidermal necrolysis.

CASE PRESENTATION

- A 43 year-old Caucasian female with recent diagnosis of malignant melanoma status post excision and adjuvant chemotherapy with high dose ipilimumab presented to the hospital with three day history of progressively worsening cramping abdominal pain associated with diarrhea.
- Initial Abdominal CT (Image 1) showed pancolitis and C-reactive protein (CRP) was elevated at 70mg/l.
- After a negative infectious work, her symptoms were attributed to autoimmune colitis from her immunotherapy with ipilimumab.
- She was treated with steroids and had rapid resolution of her symptoms and the patient was discharged on tapering doses of steroids
- Two months later, patient presented with recurrent symptoms.
- Repeat CT Abdomen (Image 2) showed new inflammatory changes in the stomach and jejunum.
- Further evaluation with Esophagogastroduodenoscopy (EGD) showed diffuse gastritis and duodenitis (Image 3).
- Histopathology showed inflammatory gastric mucosa.
- Flexible sigmoidoscopy showed diffuse circumferential granular colitis.
- Treatment with infliximab and high dose steroids resulted in quick resolution of symptoms.



Image 1

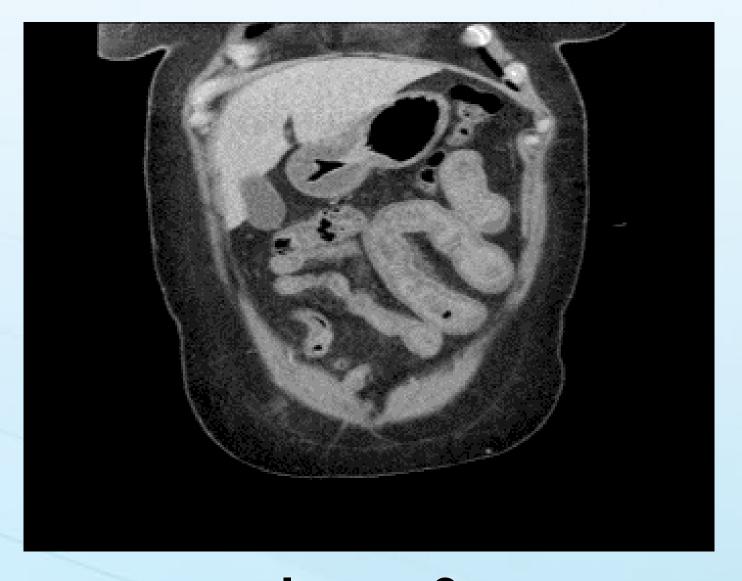


Image 2



Image 3

DISCUSSION AND FOLLOW-UP

Discussion:

- Ipilimumab causes dysregulation of gastrointestinal (GI) mucosal immunity commonly manifesting as immune related adverse events (irAEs) such as colitis but can also involve the esophagus, stomach, duodenum and the ileum.
- There have been many described cases of autoimmune colitis secondary to ipilimumab therapy but this case highlights the diffuse involvement of the upper and lower GI system caused by a single dose of ipilimumab requiring multiple hospitalizations and its refractoriness to tapering doses of steroids and infliximab.

Follow-up:

• The patient is currently maintained on chronic oral steroids and budesonide.

References:

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- 2. Cheng, R., Cooper, A., Kench, J., Watson, G., Bye, W., McNeil, C. and Shackel, N. (2015), Ipilimumab-induced toxicities and the gastroenterologist. J Gastroenterol Hepatol, 30: 657–666. doi:10.1111/jgh.12888

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