

BACKGROUND

Rituximab (RTX) is a common therapy for several autoimmune and lymphoproliferative diseases, including hematologic malignancies. Development of autoimmune enterocolitis secondary to RTX is a rare but known adverse effect. The exact mechanism of pathogenesis is not completely understood.

CASE PRESENTATION

- A 60-year-old woman with history of non-Hodgkin lymphoma in complete remission, on maintenance RTX therapy for 2.5 years, was referred to gastroenterology for 3 months of early satiety, abdominal pain, vomiting, constipation, and diarrhea.
- Symptoms occurred daily and were accompanied by 12 pounds of unintentional weight loss over this period. She had no preceding gastrointestinal disease.
- Colonoscopy revealed abnormal thickening of the ileocecal valve and linear ulceration in the terminal ileum (TI) that could not be traversed with the colonoscope (Image A,B). Colonoscopy was repeated 1 month later along with MRE (Image C), both redemonstrating inflammation of the TI.
- She was diagnosed with Crohn's disease based on endoscopic and radiographic findings, elevated fecal calprotectin, and symptoms.
- She was induced on budesonide therapy with good response, then transitioned to vedolizumab, with improvement in symptoms.
- Due to her atypical age of presentation, development of Crohn's disease was associated with her chronic RTX exposure.

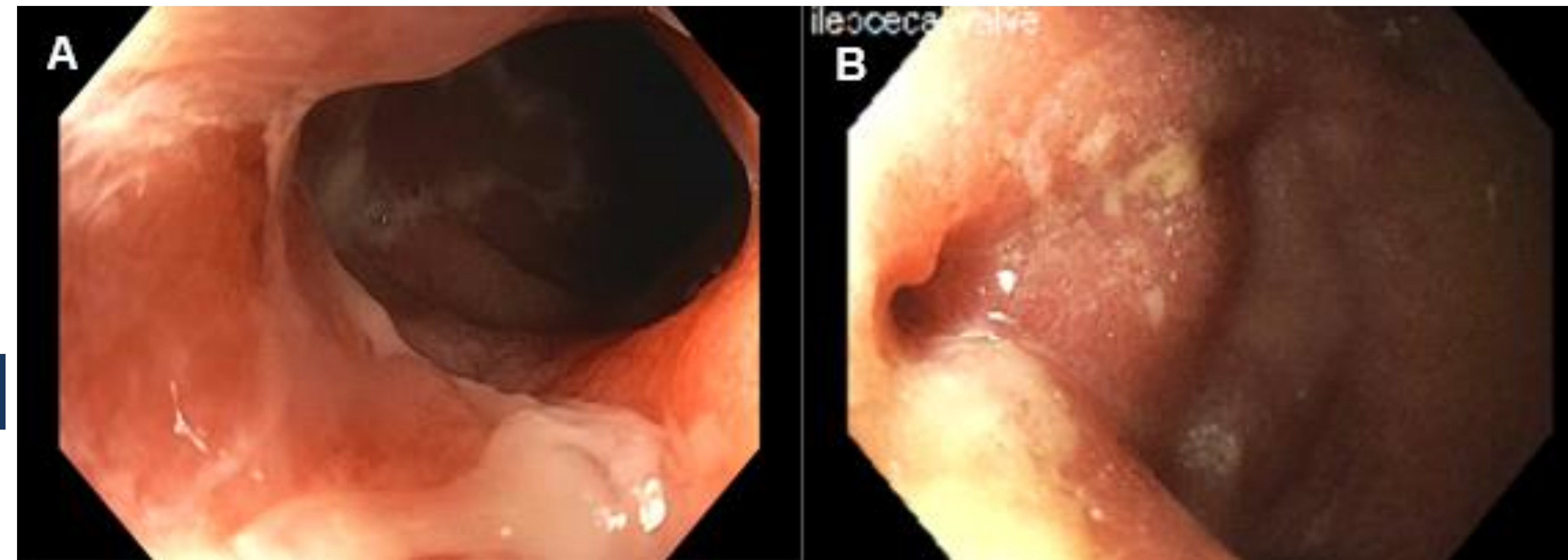


Image A: Terminal ileum as seen through narrowed ileocecal valve
Image B: Ileocecal valve

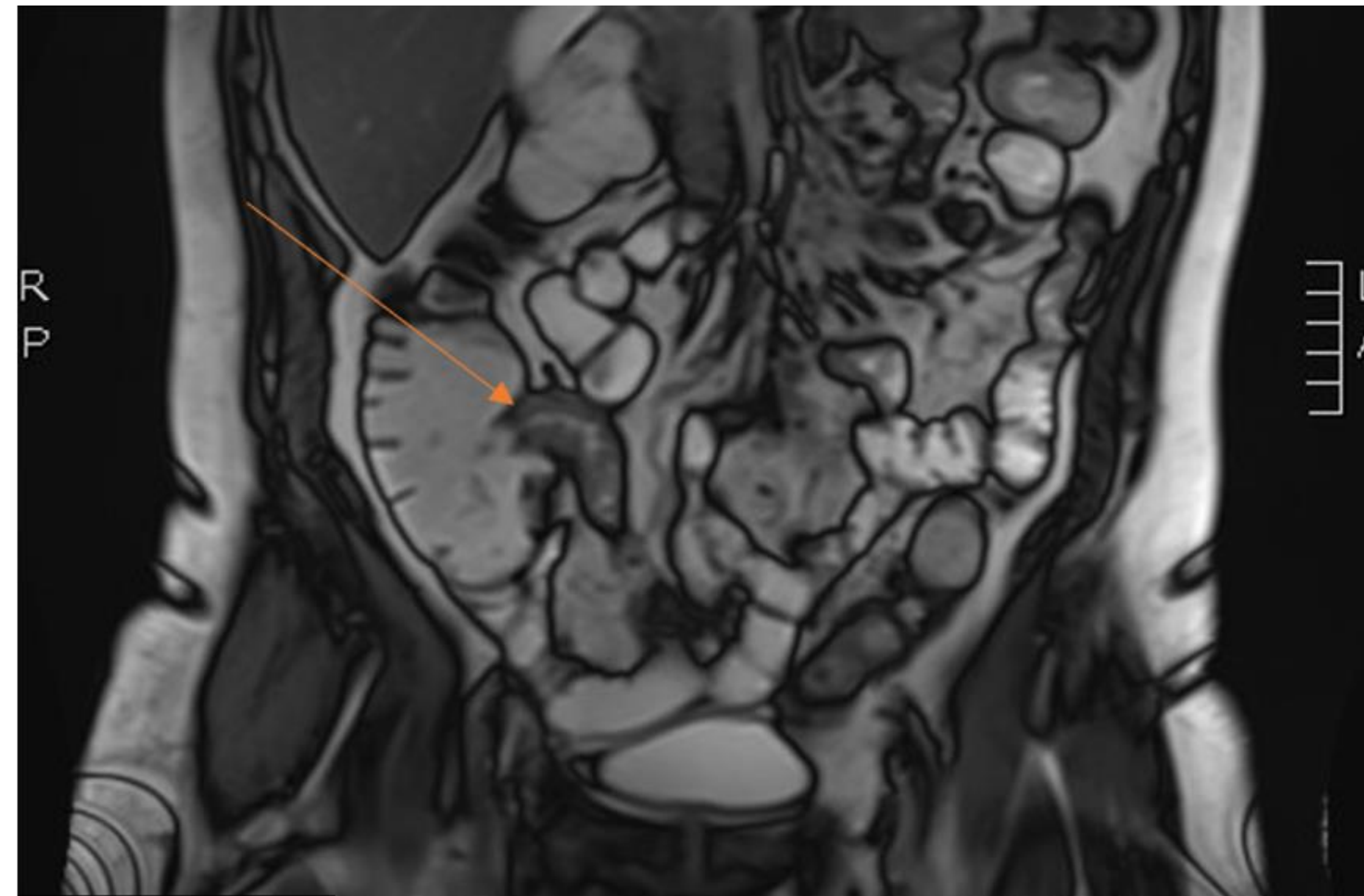


Image C: Coronal view of MRE showing inflammation of terminal ileum

DISCUSSION

- There have been few documented cases of RTX induced Crohn's disease, with most involving elderly patients on maintenance RTX therapy.¹
- Although not completely understood, it is suggested that the CD20+ lymphocytes, which are reduced by RTX, must play a role in the pro and anti-inflammatory equilibrium within the gastrointestinal mucosa.²
- The depletion of B regulatory cells which secrete anti-inflammatory interleukin-10 is likely of particular importance in promoting a pro-inflammatory state.¹
- This case highlights a rare adverse effect of RTX in a patient who otherwise did not have any clear risk factors for developing inflammatory bowel disease.
- It is important to be aware of the possibility of Crohn's disease in a patient presenting with classical symptoms such as diarrhea, abdominal pain, and weight loss when on RTX therapy.

REFERENCES

1. Cavalcanti, E., Armentano, R., & Lolli, I. Crohn's Disease Following Rituximab Treatment for Follicular Lymphoma in a Patient with Synchronous Gastric Signet Ring Cells Carcinoma: A Case Report and Literature Review. *Cancer research and treatment*. 2020; 52(4):1291–1295.
2. Varma P, Falconer J, Aga A, Prince HM, Pianko S. Rituximab-induced Crohn's disease. *Scand J Gastroenterol*. 2017;52(5):606-608.