Secukinumab-Induced Crohn's Disease Complicated by Hemorrhagic Shock in a Patient Undergoing Treatment for Chronic Plaque Psoriasis

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Learning Objectives

- Secukinumab is a human monoclonal antibody which inhibits the proinflammatory cytokine interleukin-17A (IL-17A).
- It is used to treat chronic plaque psoriasis, ankylosing spondylitis, and psoriatic arthritis.
- Over the past several years, it has been increasingly linked to exacerbations of pre-existing inflammatory bowel disease (IBD) as well as development of new onset IBD, including both ulcerative colitis and Crohn's disease (CD).
- We present an 83-year-old patient on Secukinumab for psoriasis who presented with chronic diarrhea complicated by GI hemorrhage and was diagnosed with new onset CD.

Patient Presentation

An 83-year-old male with a past medical history of CAD, CKD and psoriasis presented with four weeks of diarrhea. He denied recent antibiotic use, travel, sick contacts or history of IBD, however endorsed initiation of Secukinumab prior to symptom onset. He reported distant ileocecectomy twenty years prior for unknown reasons.

Physical Exam:

Vitals: Afebrile, BP 90/68, HR 102, RR 20, 94% on RA

General: AAOx3, uncomfortable appearing but in no acute distress

Skin: Warm, dry, no jaundice

Cardio: RRR, Normal S1/S2

Respiratory: CTAB

GI: Soft, diffusely TTP, no guarding or rebound tenderness,

bowel sounds normal

MSK: Normal range of motion, all compartments compressible

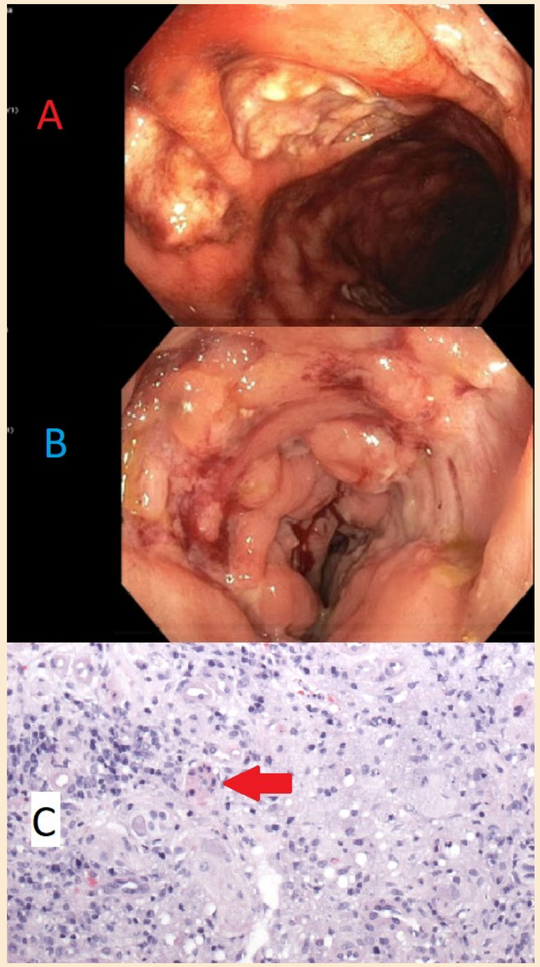
Lab Values

138	**96**	32
4.6	**22**	**1.8**

	9.6	
10.6		166
	36.2	

MCV 72
Transferrin Sat: 3%
CRP: 86 mg/dL
Fecal Calprotectin: 1860 ug/g

Colonoscopy / Pathology



A. Large, nonbleeding deep ulcerations in rectum with surrounding friable mucosa
B. Oozing terminal ileum ulcerations with associated mucus and friable mucosa
C. Chronic, active granulomatous inflammation with a cluster of histiocytes surrounded by lymphocytes and plasma cells (indicated by red arrow).

Clinical Course

- Labs remarkable for iron deficiency anemia (iron sat 3%), CRP 86 mg/dl and fecal calprotectin 1860 ug/g.
- CT scan revealed new ileal wall thickening with a normal appearing colon.
- Colonoscopy showed deep ulcers in the rectum and terminal ileum associated with mucus and friable mucosa.
- Biopsies revealed severe active ileitis with ulceration and rare epithelioid granulomas concerning for CD.
- He was started on high dose IV steroids but continued to have worsening diarrhea for 7 days.
- His course was further complicated by large volume hematochezia, hemorrhagic shock requiring 15 units of packed red blood cells, and acute kidney injury.
- Repeat colonoscopies demonstrated deep rectal ulcerations and oozing from the ileum.
- He was started on IV Remicade due to refractory symptoms but ultimately had significant clinical improvement and was discharged.

Take Home Points

- There have been several case reports of Secukinumab-induced IBD.
- The exact mechanism is unknown but may involve shunting of the immunologic pathway from blockade of IL-17 which results in increased stimulation of an alternative pathway.
- It remains unclear whether new onset IBD associated with Secukinumab is a chronic condition or resolves with discontinuation of Secukinumab.
- This case demonstrates Secukinumab-induced CD and is the first case report of severe GI hemorrhage requiring massive transfusion protocol.
- When starting patients on Secukinumab therapy, it is important to advise them of the potential complication of new onset IBD and the complications associated with IBD including intestinal hemorrhage.

References

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