INDUCTION OF INFLAMATORY BOWEL DISEASE BY INTERLEUKIN-17 INHIBITOR

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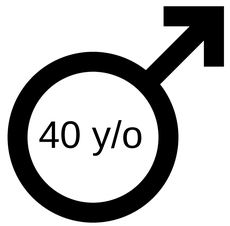
Introduction

Ixekizumab is a monoclonal antibody targeting interleukin-17 (IL-17) approved for treating psoriasis. We report a case with rare gastrointestinal (GI) manifestation with ixekizumab use.

Patient Presentation

A 40-year-old male with psoriasis presented with 4 week history of abdominal pain and intermittent watery diarrhea with blood & mucous. Two months prior, he began taking **ixekizumab** for worsening psoriasis. Psoriatic lesions and arthropathy improved. However, hematochezia started one month after using ixekizumab.

- **Vitals:** febrile to 102 °F with other vitals unremarkable.
- **Physical exam:** psoriatic plaques, generalized abdominal tenderness, & bilateral knee stiffness.



Medications

- topical betamethasone-calcipotriene
- methotrexate weekly
- folic acid
- Piroxicam
- Ixekizumab (started 2-months ago)

Work Up

Lab

- WBC 15.1k/mm^3
- CRP 174.4 mg/L
- ESR 76 mm/hr

Imaging

- **CT abdomen and pelvis with IV and oral contrast** demonstrated diffuse circumferential long segment **wall thickening of the distal colon and rectum** with mucosal enhancement.

Procedure

- **Colonoscopy** demonstrated a contiguous area of **bleeding ulcerated mucosa** in his rectum, sigmoid colon, descending colon and splenic flexure (Figure 1).

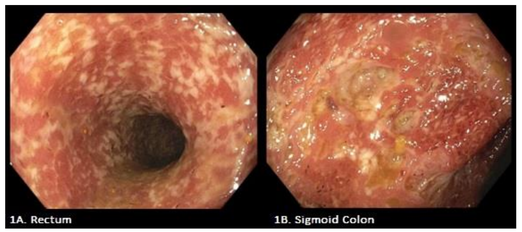


Figure 1. Bleeding ulcerated mucosa in the rectum (1A) and sigmoid colon (1B).

Diagnosis and Treatment

Biopsy

- Crypt architecture abnormalities including bifurcation of crypts
- **Prominent chronic inflammation** consisting of lymphocytes, plasma cells, and eosinophils with **mucosal ulcerations** (Figure 2).
- Crypt abscess formation
- No granulomas were noted.
- Stains for HSV & CMV, and GI pathogen panel were negative.

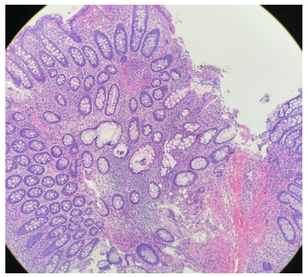


Figure 2. prominent chronic inflammation with mucosal ulcerations.

Diagnosis and Treatment

- This patient's clinical findings were most consistent with ulcerative colitis (UC).
- Ixekizumab was discontinued.
- Hydrocortisone and mesalamine were started as bridge therapy until outpatient follow up.
- Shortly thereafter, all GI symptoms completely resolved and patient was discharged home.

Discussion

We present a patient with history of psoriasis, who developed severe UC in the context of recent IL-17 inhibitor use. Clinical trials investigating IL-17 inhibition in inflammatory bowel disease (IBD) suggest that it may cause worsening or relapse in symptoms[1,2]. We present a unique case of ixekizumab causing **new-onset UC**.

Although having psoriasis is a risk factor for developing IBD, <1% of psoriasis patients were found to develop IBD in a previous nationwide 20-year cohort study[3].

This patient had no family history of IBD, no smoking history, & no extra-intestinal manifestations suggestive of UC. Only after introduction of ixekizumab he developed symptoms and pathology related to UC.

Conclusion

This case describes rare GI manifestations of ixekizumab and other IL-17 inhibitors. It reminds us to be cognizant and monitor for IBD symptoms in patients taking such medications.

References

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