New-Onset Inflammatory Bowel Disease After Ixekizumab Initiation for Psoriatic Arthritis

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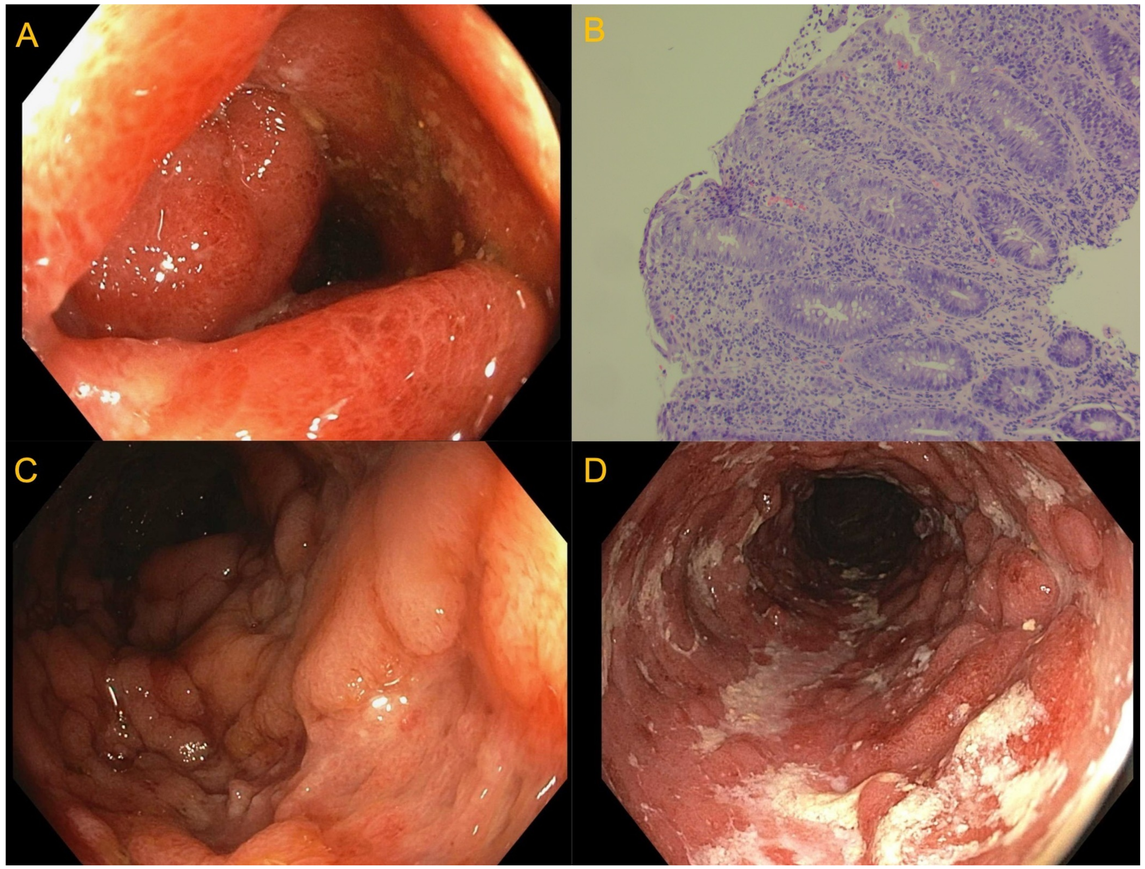
Introduction

- Monoclonal antibodies have become common practice for treatment of psoriatic arthritis (PsA), inflammatory bowel disease (IBD), and many autoimmune diseases.
- IL-17 inhibitors (IL-17i), such as Ixekizumab (IXE), are suspected to paradoxically exacerbate subclinical IBD or induce new-onset IBD in psoriatic arthritis patients.

Case Description/Methods

- 50-year-old male presented with worsening upper abdominal pain, intermittent fevers, and diarrhea for 3-weeks. Patient began IXE 2-months prior for PsA.
- One-week before admission, computed tomography (CT) showed changes consistent with proximal and transverse colitis, autoimmune panel found ASCA IgG 27.7. Colonoscopy 3-years prior for hemorrhoidal banding showed diverticulosis in the sigmoid colon.
- On arrival, patient was hypotensive with labs: fecal calprotectin 3424 mcg/g, ESR 40 mm/hr, CRP 227 mg/L, and C. difficile negative.
- IXE was held and colonoscopy revealed severe rectal proctitis, sparing of sigmoid and distal descending colon, with inflamed ulcerations in the transverse colon preventing advancement of the scope, leading to initial diagnosis of indeterminate IBD (A,B).
- While on IV methylprednisolone 20 mg every 8 hours for 1-week, symptoms persisted with repeat labs: fecal calprotectin 725 mcg/g, ESR 11 mm/hr, CRP 1.72 mg/L.
- Repeat colonoscopy showed improved inflammation in a continuous circumferential pattern from transverse colon to the cecum, with sparing of the rectum and descending colon (C).
- Days later, he improved and was discharged with outpatient follow-up on oral prednisone 40 mg. One-month later, patient worsened with fecal calprotectin 2990 mcg/g.
- After another month, colonoscopy revealed pancolitis from rectum to cecum (D), with biopsies, diagnosis of ulcerative colitis was confirmed. Patient was initiated on Adalimumab shortly after and is now feeling significantly better as he tapers off his steroid regimen.



Figure

(A) Colonoscope view of transverse colon; inflammation characterized by congestion, erythema, and friability in a continuous and circumferential pattern from descending colon to the transverse colon, graded as Mayo Score 3 (severe, with spontaneous bleeding, ulcerations) preventing colonoscope from advancing past the transverse colon.
(B) Rectal biopsy found severe chronic active proctitis, crypt abscesses, and mucosal erosions/ulceration; negative for dysplasia or granulomas.
(C) Repeat colonoscope view of transverse colon; colitis with altered vascularity, congestion and pseudopolyps in a continuous circumferential pattern from transverse colon to the cecum.
(D) Final colonoscope view of transverse colon; mild to severe pancolitis from rectum to cecum, with superficial ulcerations and friability of mucosa, Mayo Score 3.

Discussion

- IL-17i's ability to affect cell dysregulation and gut dysbiosis can explain the suspected risk of IBD in PsA.
- Recent literature has found rare cases and low incidence rates of new-onset IBD when treating diseases like PsA with IL-17i (2.4 per 1000 patient-years).
- Despite the rarity, there are practical recommendations prior to initiating IL-17i:
  - Discuss adverse risks
  - Screen for IBD history
  - Obtain fecal calprotectin
  - If fecal calprotectin is > 250 mcg/g with further testing confirming inflammation (colonoscopy, CT), then IL-17i are contraindicated and alternative immunosuppressive agents are recommended