Strongyloides Reactivation after Starting Infliximab Therapy for Crohn's Colitis

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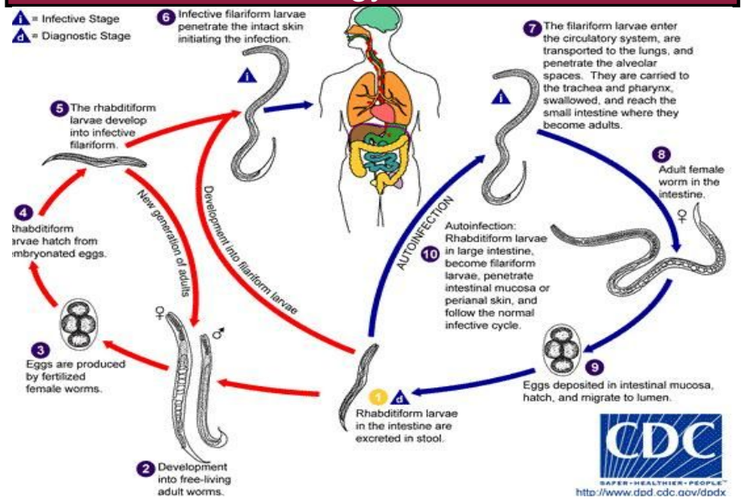
Introduction

- Crohn's Disease (CD) and Ulcerative Colitis are two of the phenotypes that make up inflammatory bowel disease (IBD)
  - Biologic therapies have revolutionized treatment
- Anti-TNFa inhibitors are used in moderate to severe disease.
  - Multiple medications are in this class and all are potent immunosuppressants.
  - Are the most commonly used medications in IBD and other autoinflammatory conditions
- Prior to initiation patients are checked for Tuberculosis (TB) and Hep-B
  - Screening for other infections is at the discretion of the Physician
- Strongyloides, a parasite endemic to South America, is one such potentially latent infection.
  - No current guidelines for Strongyloides screening exist.

Strongyloides



Case Presentation

Patient: 53 year old South American Male
CC: Blood in stools, fevers, and abdominal pain
Past Medical History: Crohn's Colitis
Exam: Conjunctival Pallor, Abdominal Tenderness, 7 by 4 cm ulcerated leg lesion
Before Reactivation: treatment with IV corticosteroids. Screens for latent infections all negative
Reactivation: Started on Infliximab and 6MP. Developed worsening abdominal pain, diarrhea, and blood streaked stools. Strongyloides parasites visible in the smear. New Peripheral Eosinophilia. Treated using Ivermectin over two weeks with successful eradication of Strongyloides.
Disposition: Infliximab and 6MP restarted. Patient has improved significantly; 20 lbs weight gain, biochemical remission, reportedly normal BMs.

Figure 1: Ulcerated lesion with purulence and necrotic tissue classically seen in Pyoderma Gangrenosum

Relevant Labs

	October 2021 Prior to Infliximab	November 2021 Post Infliximab (Reactivation)	January 2022 Outpatient F/U
CBC w/ Diff	2.8k / 8.0 / 647k / 25.2; Neut 65.9% Lymph 20.4% Mono 7.8% Eos 5.0% Baso 0.2%	4.0k / 9.2 / 427k / 30.2; Neut 36.5% Lymph 43.3% Mono 9.3% Eos 9.6% Baso 0.5%	7.9k / 10.2 / 480k / 35.1; Neut 85.1% Lymph 11.2% Mono 2.8% Eos 0.0% Baso 0.1%
Inflammatory Markers	ESR: 56 -> 23 CRP: 82.3 -> 12.0	ESR: 76 CRP: 119.4 -> 213.7	ESR: 32 CRP: 7.8
CMP	137 / 4.0 / 102 / 24 / 6 / 0.5 / 69; Ca 7.0 Mag 1.6 Phos 3.3; AST 8 ALT 12 ALK 220 TBili 0.6 DBili 0.2 Albumin 1.9	142 / 3.1 / 99 / 31 / 7 / 0.5 / 90; Ca 7.6 Mag 1.8 Phos 2.6; AST 7 ALT 18 ALK 84 TBili 0.3 DBili 0.1 Albumin 2.4	138 / 4.3 / 103 / 27 / 13 / 0.6 / 114; Ca 8.2 Mag 3.2 Phos 2.3; AST 9 ALT 22 ALK 84 TBili 0.4 DBili 0.2 Albumin 3.7

Pathology: Crohn's and Pyoderma

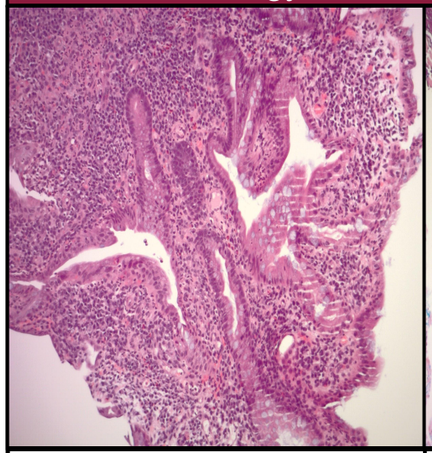


Fig. 2 (100x): **Colon at 80 cm**
Moderate chronic active colitis. Blue arrows demonstrate crypt architectural distortion, which is a feature of chronicity in IBD. The presence of neutrophils within crypt epithelium constitutes active colitis (blue circle).

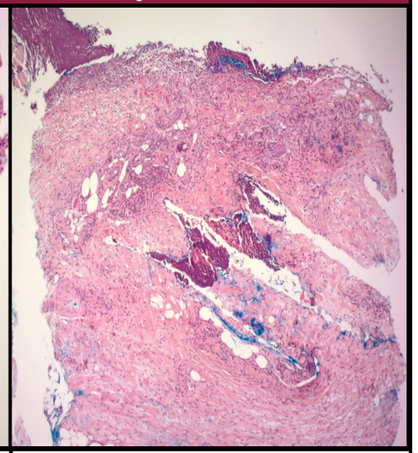


Fig 3 (100x): **Right lower extremity wound**
Wide-spread predominantly neutrophilic infiltrate throughout the dermis with surface ulceration consistent with pyoderma gangrenosum in the setting of known IBD.

Conclusion

- There are positive and negative aspects of treatment with biologic therapies for IBD.
  - **Positive:** Usually very well tolerated and provide dramatic relief to patients
  - **Negative:** Increased risk of infection, including reactivation of latent infections.
- Biologics are frequently used now for many autoinflammatory infections.
- There are no guidelines for screening for latent infections beyond Hep-B and TB.
- Developing new screening tools is necessary in an increasingly interconnected world.