

A Case of Colitis from Intestinal Spirochetosis

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Introduction

- Intestinal spirochetosis is an infection of colonic mucosa with spirochetal bacteria
- This is case of a patient presenting with diarrhea of indeterminate etiology and found to have intestinal spirochetes on biopsy.

Case Description

30yo male with HIV, GERD, and Syphilis presents with one year history of diarrhea

- **Past Medical History:**
 - HIV (on antiretroviral therapy), last CD4 count 771, HIV quantitative count less than 20
 - Syphilis, treated with penicillin six months prior to presentation, recent RPR titer 1:16
- **Past Social History:** sexually active with one, HIV positive partner, current tobacco and marijuana use
- **Initial Colonoscopy:** focal active colitis in the left colon, biopsy of the ascending and transverse colon showing mild patchy lamina propria inflammation
- **Treatment:** Mesalamine 1.5 grams daily
- Vitals, physical exam, and labs were unremarkable
- **Follow up colonoscopy:** nodular mucosa with ulceration in the rectum; rectal, sigmoid, descending, and right colon biopsies showing intestinal spirochetosis
- **Treatment:** Metronidazole for a 10-day therapy with improvement

Intestinal Spirochetosis

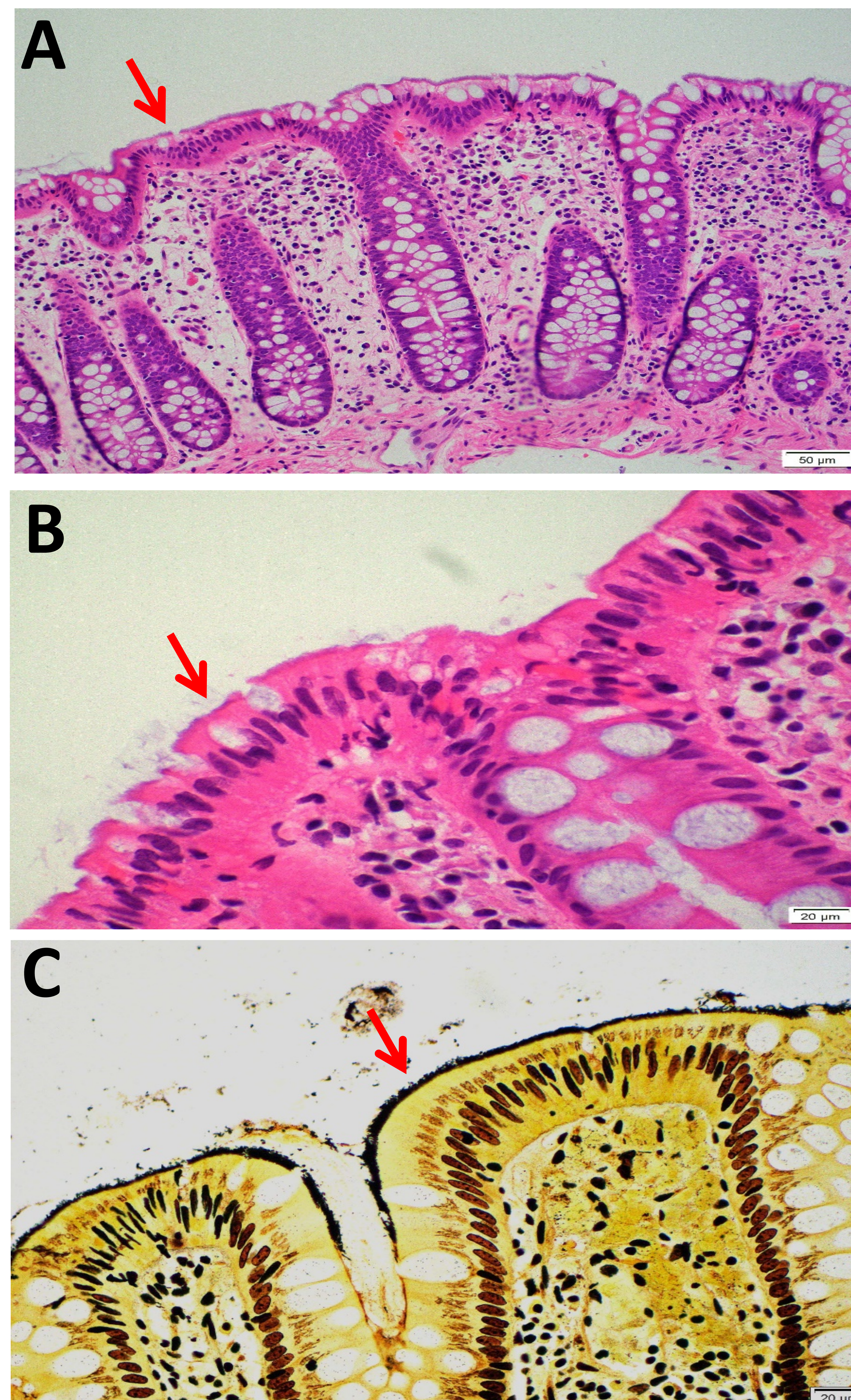


Figure 1:
Figure 1A, B: Hematoxylin and Eason Stain (H&E) showing intestinal spirochetes at 20x magnification and 40x respectively showing intestinal spirochetes (red arrow). Figure 1C: Silver Steiner stain showing intestinal spirochetes (red arrow).

Discussion

Biopsy Findings:

- Endoscopic mucosal appearance is variable ranging from normal to mucosal erosions
- Biopsy shows diffuse blue fringe along the border of the intercryptal epithelial layer and intestinal spirochetes

Key Points:

- Brachypiracea family are the most commonly associated organisms associated with intestinal colonization
- Coinfection with other enteric pathogens including *Helicobacter pylori* is common
- Higher prevalence in homosexual men and HIV-infected patients
- Association with diverticular disease and intestinal bowel disease
- Refractory, chronic diarrhea is a common presenting symptom
- Metronidazole is an effective treatment

References

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