

Incidental Finding of Intestinal Spirochetes in a Patient with Inflammatory Bowel Disease



Zarir Ahmed, D.O.¹, Mashkurul Haque, B.A², Michelle Baliss, D. O.¹, Laith Numan, M.D.¹, Soumojit Gosh, M.D.¹, Thomas Fay, M.D ³, Christine Boumitri, M.D.¹

¹Department of Gastroenterology Medicine, Saint Louis University, Saint Louis, MO. ²Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis, MO. ³Department of Pathology, Saint Louis University School of Medicine, Saint Louis University School of Medicine,

INTRODUCTION

- Intestinal spirochetes is commonly associated with HIV infection
- Recent studies include more risk factors, including IBD

CASE PRESENTATION

- 40 y/o female with PMH stricturing ileocolonic
 Crohns disease was seen in clinic for follow-up
- Office Visit
 - 1-2 bowel movements/day
 - No significant sx of abdominal pain, nausea, rashes, sores, weight loss
- IBD Hx
 - Dx in 2018 with Crohns Disease
 - Treatments
 - Adalimumab (stopped 2/2 Ab formation)
 - Ustekinumab (current)
- Social Hx
 - Works as a veterinarian, has a dog at home
- Colonoscopy
 - Underwent for disease monitoring
 - Normal colon, ileal stricture, 1 small ileal erosion, no other signs of disease activity
 - Simple endoscopic score for Crohns disease: 4
 - Pathology with intestinal spirochetes infection

DIAGNOSTIC IMAGING

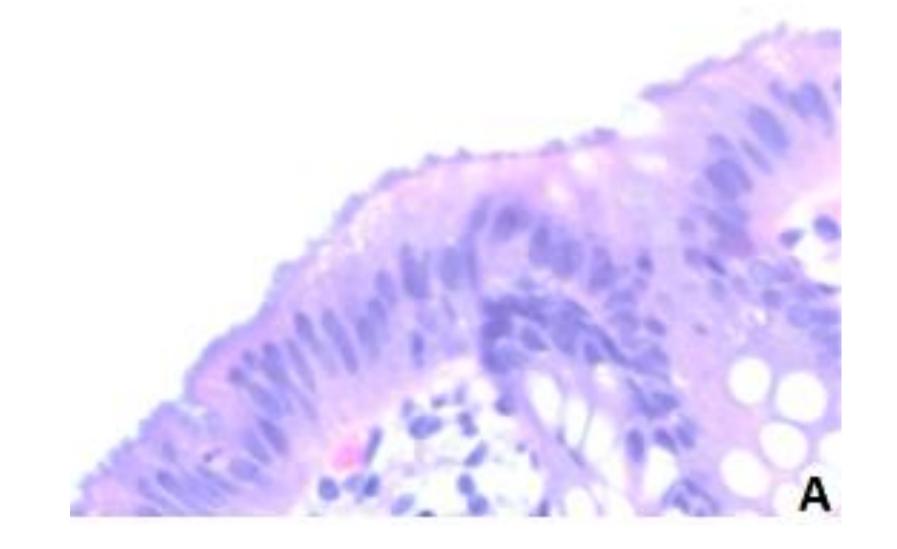


Image A: The luminal surface has fuzzy basophilic appearance (hematoxylin and eosin 40x)

Image B: Densely packed filamentous spirochetes by silver stain (arrows, Warthin-Starry, 40x)

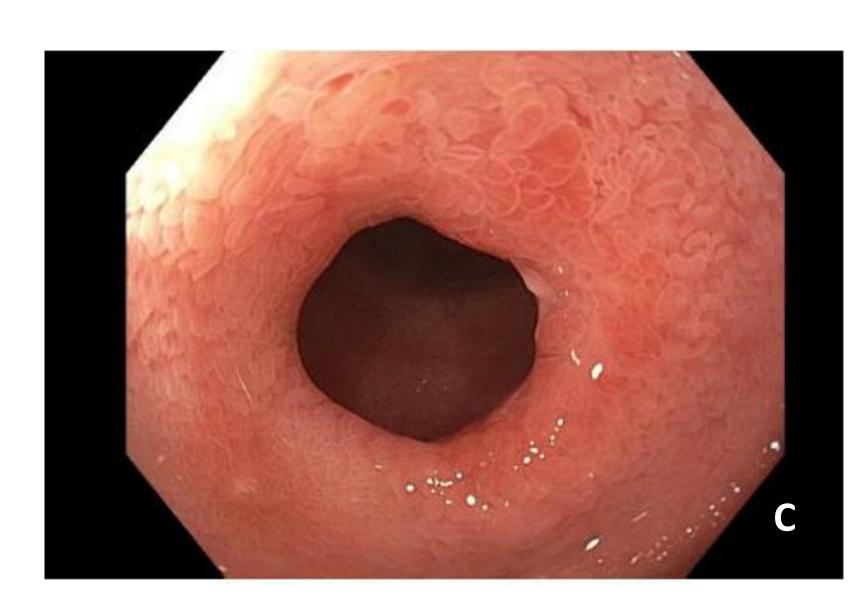


Image C: Terminal ileum stricture with erythema and ulceration

DISCUSSION

Epidemiology

- Low socioeconomic status
- Veterinary medicine
- HIV, homosexual males
- Immunocompromised- IBD

Diagnosis

- Histologically via silver stains, or immunostains
- "False brush border" formed by spirochete on epithelium
- Endo polypoid and erythematous lesions

Clinical Presentation

- Chronic, watery diarrhea
- Vague abdominal pain

Management

- Asymptomatic No treatment required
- Symptomatic: Metronidazole

In her case...

 Consider treatment of spirochetes infection for IBD patients with chronic diarrhea

REFERENCES:

1.Erickson LA, Torbenson MS. Intestinal Spirochetosis. Mayo Clin Proc. 2020 Feb;95(2):427-428. doi: 10.1016/j.mayocp.2019.12.003. PMID: 32029097.

2.Matsuura N. Intestinal Spirochetosis. Clin Gastroenterol Hepatol. 2022 Jun;20(6):e1226-e1227. doi: 10.1016/j.cgh.2021.09.007. Epub 2021 Sep 10. PMID: 34517125.

3.Chebli JM, de Abreu NC, Chebli LA, Reboredo MM, Pinheiro HS. Intestinal spirochetosis: an unusual cause of IBD flare-up during anti-TNF therapy. Int J Colorectal Dis. 2016 Mar;31(3):745-6. doi: 10.1007/s00384-015-2240-8. Epub 2015 May 16. PMID: 25982466.