



To Treat or Not to Treat: A Case of Intestinal Spirochetosis



Orlando Rodriguez-Amador, MD¹; Zeyn Mirza, MD²; José Martin-Ortiz, MD, FACP²

¹Department of Internal Medicine, VA Caribbean Healthcare System;

²Gastroenterology and Hepatology Section, VA Caribbean Healthcare System

INTRODUCTION

- Intestinal spirochetosis, first described in 1967, is an uncommon disease defined by colonization of the colonic epithelial cell with anaerobic spirochetes of the Brachyspiraceae family.
- Histologically, it is characterized by a distinctive fringe-like, end on end attachment of a densely packed filamentous spirochetes on the surface epithelium of the colon.
- Its prevalence varies depending on geographic location, but ranges between 2%-7% in Western countries.
- Higher prevalence has been noted in men who have sex with men and HIV-positive patients.
- Patient may present asymptotically or with associated symptoms, such as diarrhea and abdominal pain.
- Most cases are found incidentally during screening or surveillance colonoscopy in association with adenomatous and hyperplastic polyps, diverticular disease and inflammatory bowel disease.
- We present a case of intestinal spirochetosis.

CLINICAL PRESENTATION

- 71 y/o male patient with history of prostate adenocarcinoma and squamous cell carcinoma of lung s/p lobectomy in 2020 on home oxygen.
- He was consulted to GI services for screening colonoscopy. Colonoscopy with evidence of 2 diminutive sessile polyp at transverse colon and pandiverticulosis
- Last colonoscopy performed in 2010 revealed severe diverticulosis, hemorrhoids and no evidence of masses or polyps.
- Pathology results with evidence of tubular adenoma and fragment of colonic mucosa with a blue fringe over the surface epithelium suggestive of spirochetosis.

IMAGING

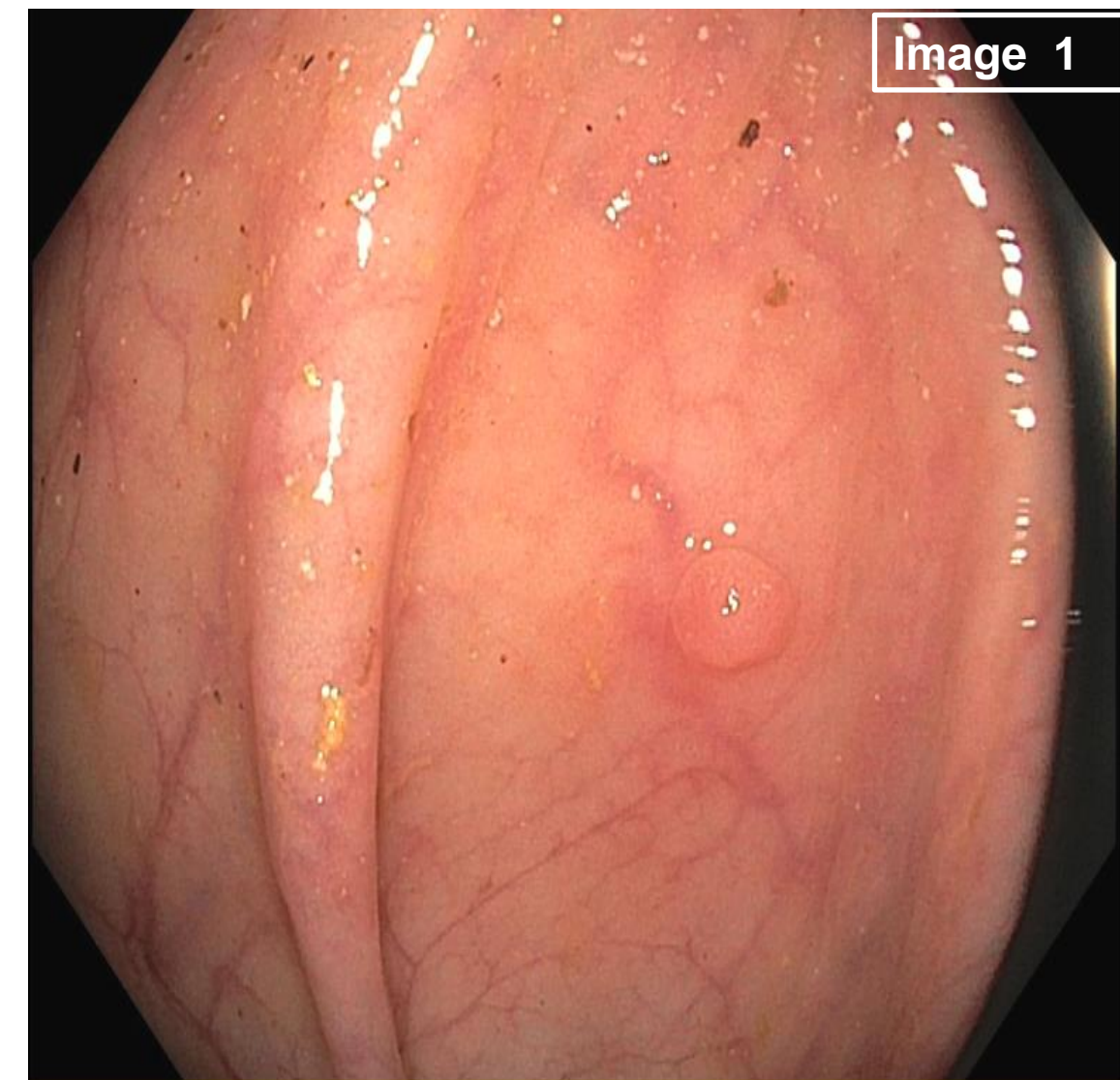


Image 1: Colonoscopy findings. Mucosal with no evidence of erythema, edema or friability. Diminutive sessile polyp at transverse colon.

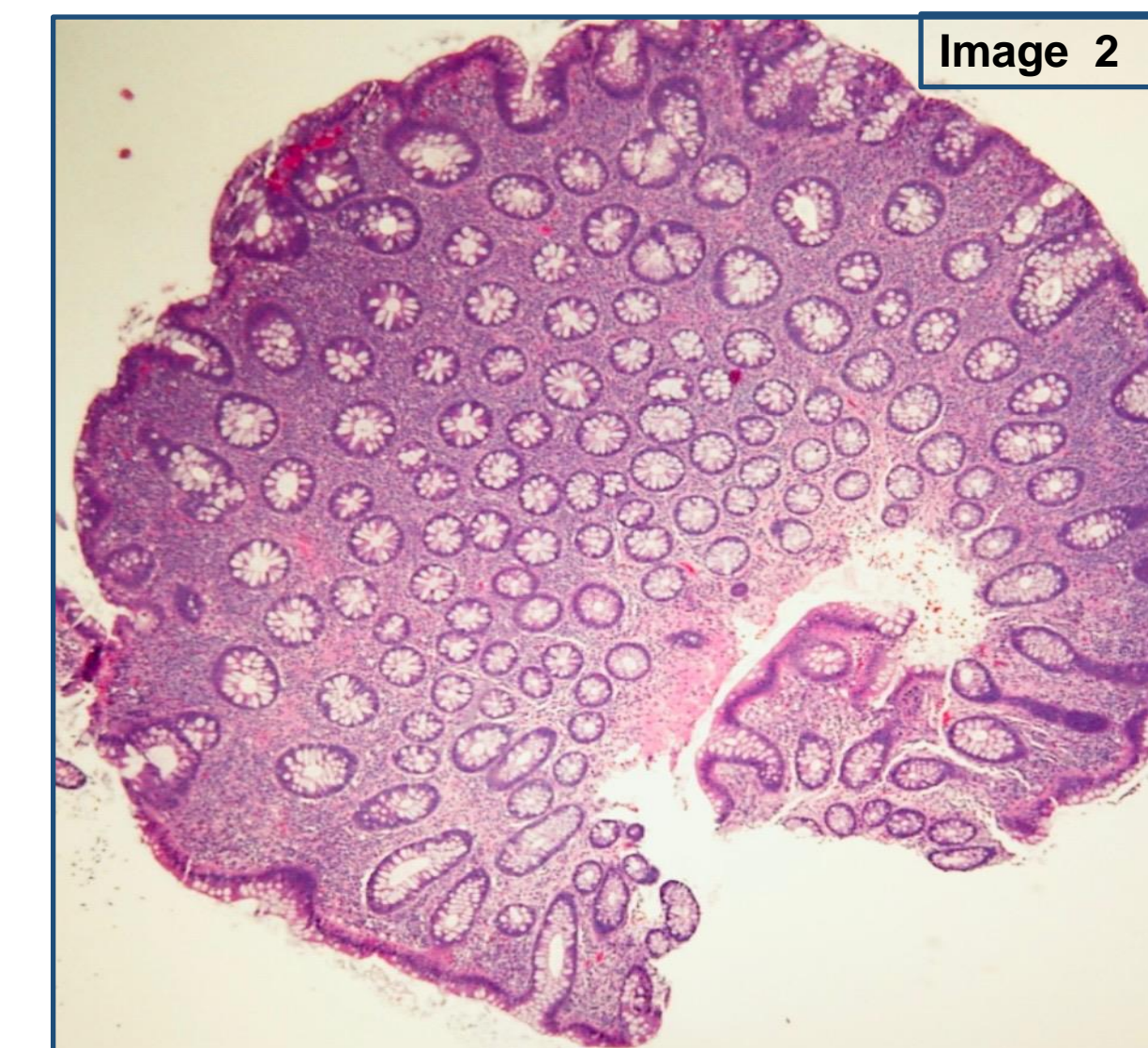


Image 2: Biopsy of polyp of the transverse colon showing evidence of tubular adenoma.

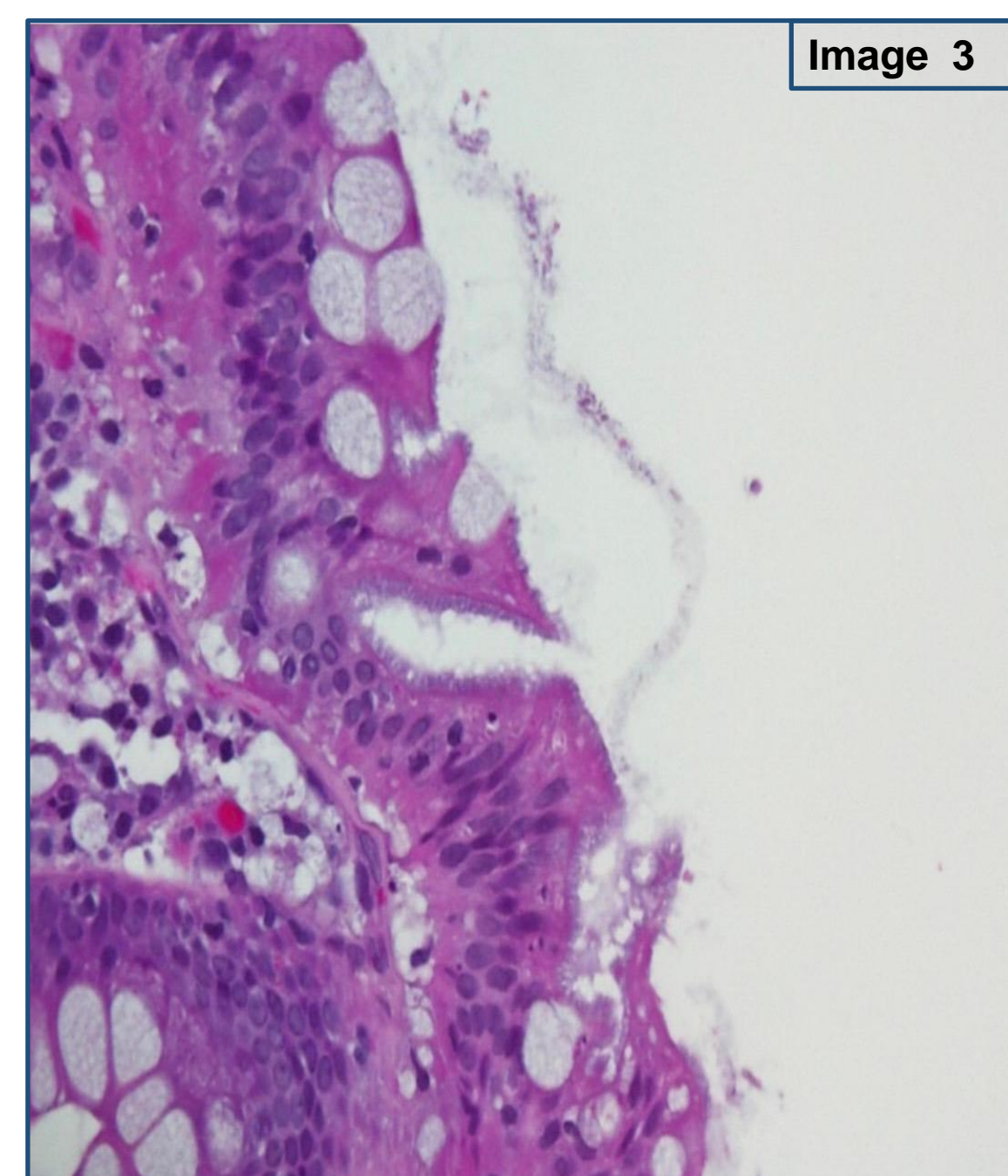
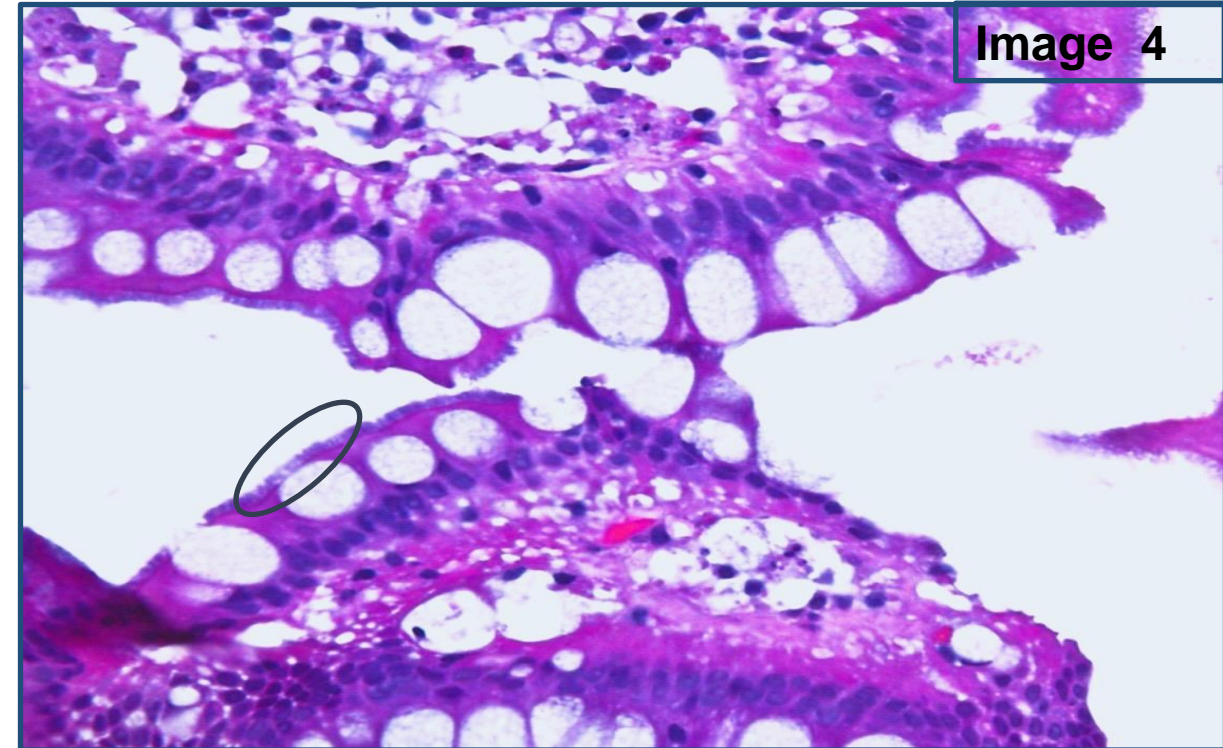


Image 3: Pathology Finding. Fragment of colonic mucosa with a blue tinge fringe over the surface epithelium. Findings suggestive of spirochetosis. Histologically, it is characterized by a distinctive basophilic, fringe-like, end on attachment of densely packed filamentous spirochetes, on the surface epithelium



Images 4&5: Comparison of a biopsy of our patient with evidence of areas in the superficial epithelium showing blue tinge fringe (image 4 the circled area) vs normal epithelium as showed in image 5.

CLINICAL COURSE

- Infectious diseases services stated that the found organism was most likely to be *Brachyspira aalborgi* or *pilosicoli*.
- Since he was asymptomatic and immunocompetent, with negative HIV test, recommendations were to not start antibiotic therapy and to be monitored clinically.
- Since he continued clinically stable without symptoms there was no need for starting therapy.

DISCUSSION

- Intestinal spirochetosis is a disease mostly found accidentally during surveillance and screening colonoscopy when biopsies are taken from polyps or diverticula.
- Generally, infection is non-invasive, but rarely invasion occurs causing diarrhea, abdominal pain or bleeding.
- There are reports of more severe disease and increasing incidence in the homosexuals and HIV positive population.
- When symptomatic, treatment consists of metronidazole.
- The importance of this case is to make the practicing physician aware of this rare disease, its clinical presentation, management and the growing in incidence in the aforementioned population.

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