CLINICAL VIGNETTE

Collagenous Colitis: A Possible Cause of Chronic Diarrhea

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Case Summary

A 73-year-old woman with rheumatoid arthritis, hypertension, hyperlipidemia, hypothyroidism, and hypogammaglobulinemia presented to the Emergency Department with abdominal pain and diarrhea for three weeks. The diarrhea was associated with cramping abdominal pain that starts in the upper quadrants and radiates to the lower quadrants. She saw her gastroenterologist and was diagnosed with clostridium difficile and started on vancomycin 125mg orally every 6 hours. However, she continued to have diarrhea with up to twenty bowel movements per day. She also started to notice streaks of blood in her stools. She was previously diagnosed with collagenous colitis at which time she had similar symptoms. Her outpatient gastroenterologist instructed her to present to the Emergency Department given persistent diarrhea and abdominal pain despite treatment with oral vancomycin.

On admission she was continued on oral vancomycin and also started on intravenous metronidazole. Gastroenterology and infectious disease were consulted and intravenous metronidazole was discontinued and oral vancomycin was continued. Immunoglobulin IgG levels on admission returned at 335. After discussion with infectious disease, 90 grams of intravenous immunoglobulin (IVIG) was administered. The patient continued to have abdominal pain and frequent bowel movements that did not improve. CT scan of abdomen and pelvis showed no bowel wall thickening. Oral vancomycin was discontinued and the patient was started on fidaxomicin. Given lack of clinical improvement, she underwent sigmoidoscopy which showed friable mucosa and pseudomembranous changes. Biopsies later returned with marked colitis with chronic and acute components favoring collagenous colitis.

The patient was then started on cholestyramine 4g orally four times daily. As her symptoms did not improve, she was also started on mesalamine. She was initially hesitant to start steroids due to concerns about the side effects. However, she was later amenable and started budesonide 9mg daily, with improvement in diarrhea and abdominal pain. Fidaxomicin was discontinued and she was thought to have colonization rather than an active clostridium difficile infection. She was discharged to a skilled nursing facility for rehabilitation.

Discussion

Collagenous colitis is a subtype of microscopic colitis characterized by microscopic inflammation of the bowel.[1] Patients often present with chronic non-bloody diarrhea. Bohr et al retrospective analysis of 163 histopathologically verified cases of collagenous colitis reported median age at diagnosis of 55 years, with 25% of patients diagnosed before age 45 years.[1] Chronic diarrhea was the most common symptom though there was one case with chronic obstipation. Other studies reported patients with a predominantly nocturnal component of diarrhea, abdominal pain, weight loss and incontinence.[1,2] Increased levels of eosinophil protein X, myeloperoxidase and tryptase have been identified in the stool of patients with collagenous colitis.[3] Endoscopic evaluation with biopsies is needed to establish the diagnosis of collagenous colitis. Some report normal colonic mucosa through most describe mucosal edema, erythema and friability.[2,4] On histologic evaluation, collagenous colitis is characterized by a subepithelial collagen layer with an irregular deep border.[4] The lamina propria frequently has chronic inflammatory infiltrates with increased intraepithelial lymphocytes.[4] Colonoscopy is favored over flexible sigmoidoscopy as the lesions in collagenous colitis may be patchy. There are few reports of perforation with colonoscopy which is likely secondary to the significant amount of subepithelial collagen in the mucosa. Lack of flexibility may predispose the mucosa to "crack" or "fracture" with air insufflation during colonoscopy.[4]

Active disease is defined as more than three bowel movements per day or more than one watery bowel movement per day.[5] Patients with active disease, have evidence suggesting effectiveness of oral budesonide with both clinical and histologic responses.[6] The recommended dose of oral budesonide is 9mg daily for six to eight weeks. Sloth et al studied the use of prednisolone in six patients with collagenous colitis and found that despite the decrease in inflammation, the thickness of the collagen band did not change and patients had recurrence of diarrhea after stopping prednisolone.[7] Antidiarrheal agents can also be used for symptomatic relief. Other therapies may include cholestyramine and bismuth subsalicylate.

Conclusion

Collagenous colitis should be considered in patients with chronic non-bloody diarrhea. Endoscopic evaluation and pathology are needed to make the diagnoses. For patients with active disease, oral budesonide has been found to be effective.

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