

BEYOND NORMAL ENDOSCOPY: RECOGNIZING THE SILENT CLUES OF COLLAGENOUS COLITIS: A CASE REPORT

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ABSTRACT

Introduction: Collagenous colitis is a specific form of colitis, which comes as a subtype of microscopic colitis. It is characterized by chronic diarrhea with associated abdominal pain and normal colonoscopy findings. The examination under microscopy reveals thickened sub epithelial collagenisation which gives the diagnosis of collagenous colitis.

Case details: 22 year old male came with complaints of increased bowel frequency for few months with no other comorbidities. The colonoscopy revealed no abnormalities.

Diagnosis: The diagnosis of collagenous colitis was made under histopathological examination with confirmation using Masson's trichrome stain.

Conclusion: Collagenous colitis is a subtype of microscopic colitis which shows no abnormalities on colonoscopy but increased thickening of subepithelial collagen on microscopy. Hence histological examination is essential to arrive at the diagnosis.

KEYWORDS: case report, chronic diarrhea, colonoscopy, collagenous colitis

INTRODUCTION

Collagenous colitis is a specific form of colitis, which comes as a subtype of microscopic colitis. For collagenous colitis the pooled incidence is 4.1 cases per 100,000 person-years, worldwide. The mean age at diagnosis is 60 to 65 years.¹ Here we report a case of collagenous colitis at a young age. The colonoscopy findings are usually unremarkable with normal mucosa. Hence microscopic examination is required for definitive diagnosis. The risk factors commonly include the use of NSAIDs and proton pump inhibitors, as well as the presence of autoimmune diseases.¹

Case Details

A 22 year old young man came with complaints of watery diarrhea for few months with abdominal pain. The patient had watery diarrhea. He underwent colonoscopy and had normal mucosa as findings (fig 1). The gastroenterologist had taken biopsy samples and we received multiple grey white soft tissue bits of terminal ileum, ascending colon, as transverse colon, descending and sigmoid colon in different containers each of size 0.5 cc. Microscopic examination of the ileal mucosa shows 22 intraepithelial lymphocytes per 100 enterocytes. Colonic mucosa showed preserved architecture and the number of intra epithelial lymphocytes / 100 enterocytes – 24/100. There was also thickened sub epithelial collagen band. Masson's trichrome stain showed thickened sub epithelial collagen with mildly increased intra epithelial lymphocytes. The histological features were suggestive of collagenous colitis.

DISCUSSION

Collagenous colitis is a form of microscopic colitis that is being recognized more frequently. It typically does not cause visible changes in the lining of the colon, so diagnosis depends on microscopic examination of tissue samples. The condition is most commonly diagnosed in individuals aged 60 to 65 years with female preponderance. Known risk factors include the use of NSAIDs and proton pump inhibitors, as well as the presence of autoimmune diseases. Patients usually present with chronic, watery, non-bloody diarrhea, often accompanied by abdominal pain, fecal urgency, and weight loss. The colonoscopic findings of mucosa is usually normal.



Figure 1: Showing normal mucosa in the colonoscopy

Histologic features of collagenous colitis which includes thickening of subepithelial collagen of more than 10 μ m and the layer is irregular with ragged appearance. There are irregular extensions into the superficial lamina propria which entrap capillaries, erythrocytes and/or inflammatory cells. There is increased intraepithelial lymphocytes but not as lymphocytic colitis. 2 Differential diagnosis include inflammatory bowel disease, acute colitis, Ischemic bowel disease, mucosal prolapse syndrome, and amyloidosis and Lymphocytic colitis. 1 Pathogenesis could be associated with abnormal collagen metabolism, which causes increased production of nitric oxide in the colonic epithelium, inducing secretory diarrhea³.

In this case the patient had clinical manifestations of functional bowel disorder which is not specific to the diagnosis of collagenous colitis. Hence histopathological examination plays a vital role in the diagnosis. To increase diagnostic sensitivity, multiple random biopsies were collected from different regions of the colon during the follow-up colonoscopy to obtain a larger number of specimens. This approach has been shown to improve diagnostic accuracy and is recommended by the American Society for Gastrointestinal Endoscopy.³

The microscopic examination of the ileal mucosa showed 22 intraepithelial lymphocytes per 100 enterocytes. Colonic mucosa showed preserved architecture and the number of intra epithelial lymphocytes / 100 enterocytes – 24/100. There was also thickened sub epithelial collagen band.

The presence of increased intra epithelial lymphocytes is attributed to lymphocytic colitis which is also a subtype of microscopic colitis. The distinguishing feature of lymphocytic colitis is the presence of increased thickened sub epithelial collagenisation (fig 1c) which is seen in H and E stain. To confirm the collagenisation, Masson's trichrome special stain was used which highlighted the collagen (fig 1c and 1d).

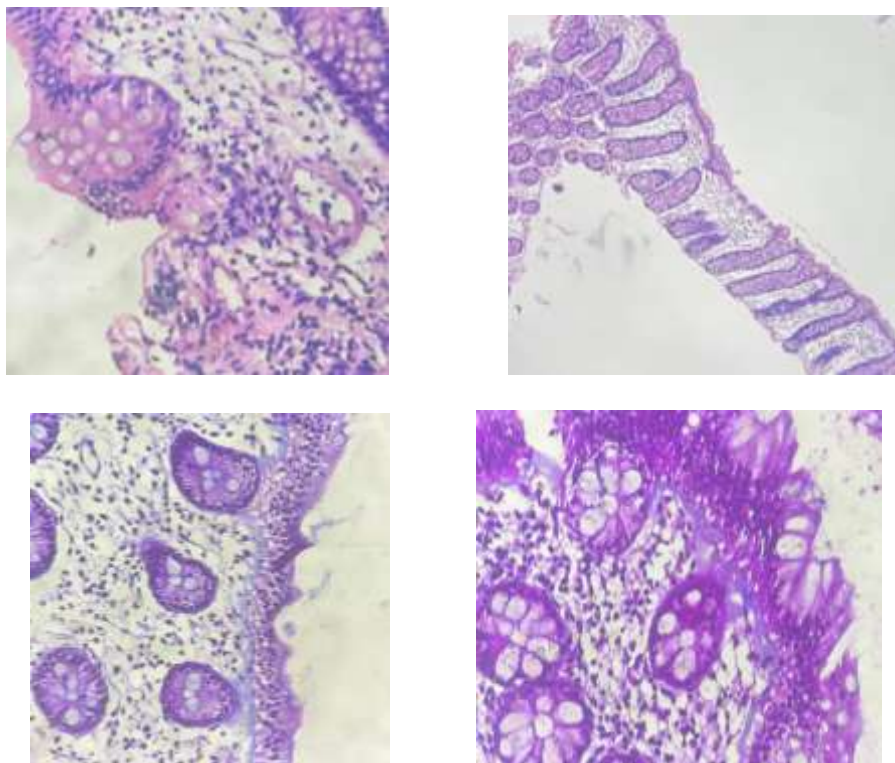


Fig 1: a) High power view showing increased intraepithelial lymphocytes b) Low power view showing Ileal mucosa with mild architectural disarray c) Masson Trichrome showing sub epithelial band of thick collagen. (X 400) d) Masson Trichrome showing sub epithelial band of thick collagen. (X 400).

In summary, collagenous colitis is an uncommon cause of chronic diarrhea and can only be definitively diagnosed through histopathological examination of the colonic mucosa. Therefore, in patients with persistent chronic diarrhea and no

established diagnosis, a repeat colonoscopy with systematic random biopsies from both suspicious areas and even normal-appearing mucosa should be considered.

The treatment includes prevention of triggers such as NSAIDS, eating soft foods such as rice, banana and avoiding dairy, gluten-rich, high fat foods, caffeine and alcohol. And smoking can make the illness worse, hence its advised to quit. Medical treatments include symptomatic treatment which includes probiotics, anti-diarheal drugs, budesonide a targeted steroid drug which reduced inflammation, bile acid binders. In resistant cases, immuno suppressive drugs are used such JAK-kinase inhibitors off label.

REFERENCES

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