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Case Report

Cat scratch colon: An endoscopic finding suggesting collagenous colitis

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SUMMARY

Collagenous colitis is a chronic inflammatory disease of the colon of unknown etiology. Diagnosis is considered in the presence of non-bloody, watery diarrhea and is confirmed by microscopic examination of samples taken during colonoscopy. "Cat scratch" colon is a colonoscopic finding characterized by red mucosal scratches that can be found both in normal and pathological colon. We report the case of a woman who underwent colonoscopy for the investigation of profuse watery diarrhea. The endoscopic finding of "cat scratch" colon, in association with the clinical symptoms, set the suspicion of collagenous colitis, which was histologically confirmed.

Key words: collagenous colitis; "cat scratch' colon; colonoscopy.

INTRODUCTION

Collagenous colitis (CC) is a well-known cause of chronic non-bloody diarrhea, especially in elderly women.[1] Diagnosis is based on clinical symptoms of the disease and histological findings of biopsies taken during colonoscopy.[2]

We herein describe the case of an elderly woman who underwent colonoscopy for the investigation of profuse watery diarrhea and presented red mucosal scratches in the cecum and the ascending colon. Biopsies taken from the right colon and cecum confirmed the clinical suspicion of CC.

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CASE REPORT

A 68-year-old woman presented to her family doctor with a four-month history of profuse watery diarrhea. Her past medical and family history was unremarkable. Routine laboratory studies were normal and cultures for stool pathogens were negative. Esophagogastroduodenoscopy and duodenal biopsies were normal. A barium enema examination was unremarkable.

At colonoscopy, the cecum was easily reached after gentle insufflation and discrete linear mucosal red breaks ("cat scratch" colon) were found in the ascending colon (Fig.1). Having the clinical suspicion of CC, the examination was discontinued and biopsies were taken from the normal mu-

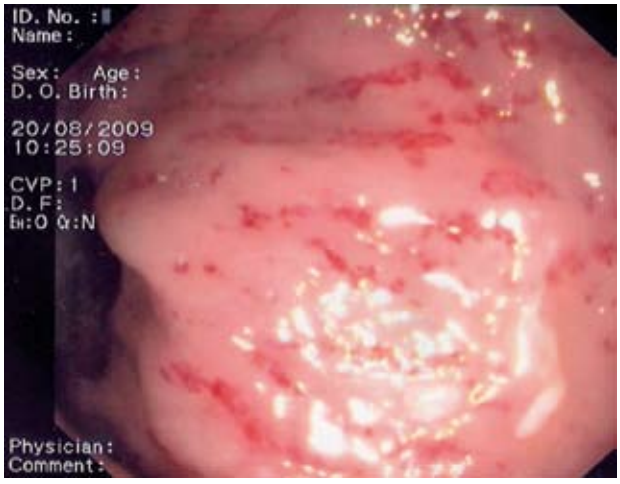

Figure 1. Endoscopic picture showing discrete linear mucosal red breaks ("cat scratch" colon) in the ascending colon

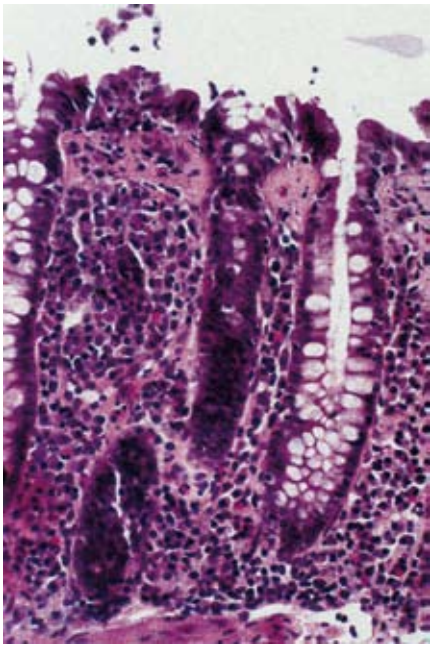

Figure 2. Histopathologic picture of colonic mucosa showing the presence of thick supepithelial collagen band, increased intraepithelial lymphocytes and surface epithelial damage

cosa of the cecum and ascending colon. Histopathologic examination showed the presence of thick supepithelial collagen band, increased intraepithelial lymphocytes and surface epithelial damage (Fig.2), thus confirming the diagnosis of CC. The patient was treated with 1 mg budesonide thrice per day, leading in resolution of symptoms.

DISCUSSION

The endoscopic appearance of the colon in CC is typically normal; however, about 30 % of patients present erythema, abnormal vascular pattern or patchy edema.[1] Recently, significant endoscopic lesions, ranging from longitudinal linear lacerations of the colonic mucosa (mucosal tears) to submucosal dissection (cracking), and hemorrhagic linear marks (cat scratch) have been reported to occur during colonoscopy in patients with CC.[2-10]

CC is characterized by the presence of a subepithelial collagen layer that ranges from 10 to 100 μm in thickness (with normal being < 7 μm), and an irregular, often spiculated, deep border. A variable chronic inflammatory infiltrate is typically present in the lamina propria and intraepithelial lymphocytes are increased in number. Immunohistochemical studies have demonstrated that the abnormally thick collagen layer predominantly includes collagen type VI, as well as collagen types I, III and IV, which are normal products of the subepithelial fibroblast. No abnormal type of collagen is produced; rather, a defect in matrix degradation has been postulated as the cause of the accumulation of the subepithelial collagen.[1]

Based on the above, we support the theory that, in patients with CC, the deposition of the subepithelial collagen makes the mucosa stiff and relatively non-distensible. This lack of compliance may make the superficial mucosa susceptible to injury ("cracking" lacerations, 'cat scratch" colon) during air insufflation in the course of colonoscopy, especially in regions where the flexibility of the bowel wall is limited by submucosal fibrosis.[11]

"Cat scratch" colon appears as fresh scratches because of the bright red appearance, sometimes associated with extravasation of fresh heme.[3,6] These endoscopic findings are non-specific for CC and have been described in normal colon (attributed to barotraumas from excessive insufflation during colonoscopy)[6,11,12] and in diversion colitis.[4] However, "cat scratch" colon may represent a marker of increased risk of colonic perforation during colonoscopy and should always be a warning sign to the endoscopist. If these lesions are recognized at colonoscopy, the procedure should be immediately aborted and biopsies must be taken for possible CC.

In conclusion, recognition of "cat scratch" colon during colonoscopy should pose the suspicion of CC. Histological examination of biopsies taken from the colon may lead to definite diagnosis.

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