Acute petechiae in a diversion colon loop

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Abstract

The term "diversion colitis" has been introduced to describe an unspecific inflammation occurring in a defunctionalized portion of bowel, following either loop ileostomy, colostomy, or Hartmann's procedure for various reasons. Endoscopic findings are not specific and include friability, petechia, erythema, ulcers, exudate, and more rarely nodules or polyps. Biopsy is not specific and in severe cases parallels severe ulcerative colitis.

We present herein a 32 year-old male with a loop colostomy due to a motorcycle accident who underwent endoscopy for designing ostomy closure.

Diagnosis of diversion colitis should be differentiated from other diseases with similar clinical manifestations. Clinical history is very important in order to correctly focus on the differential diagnosis. Ischemic colitis is associated with cardiovascular disorders, diabetes, hematological diseases and a history of abdominal operation. Endoscopic appearance is similar to diversion colitis but in severe cases longitudinal ulcerations and strictures may be found.

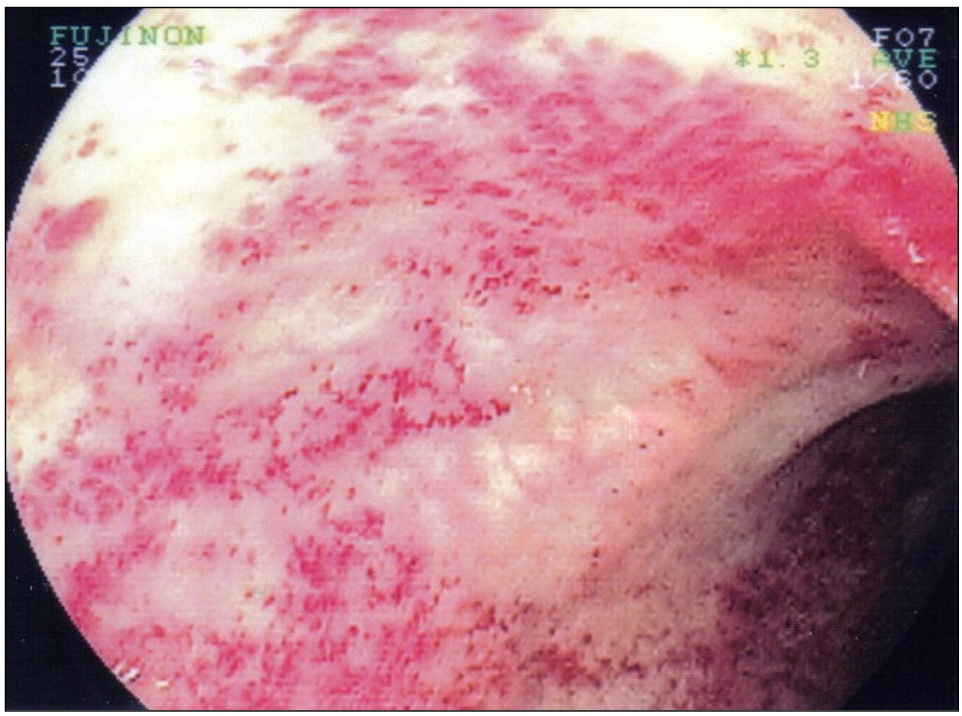
Keywords: bowel loop, diversion colitis, ischemic colitis, petechiae.

The term "diversion colitis" has been introduced to describe an unspecific inflammation occurring in a defunctionalized portion of bowel, following either loop ileostomy, colostomy, or Hartmann's procedure for various reasons including perforated diverticulitis, carcinoma, or trauma. Some patients may present with rectal pain, discomfort, discharge, tenesmus and bleeding. Endoscopic findings are not specific and include friability, petechia, erythema, ulcers, exudate, and more rarely nodules or polyps. Biopsy is not specific and in severe cases parallels severe ulcerative colitis.

We present herein a 32 year-old male with a loop colostomy due to a motorcycle accident who underwent endoscopy for designing ostomy closure. Patient's family history and personal history was otherwise normal. Laboratory examination showed a white blood cell count of 6600/mm^3, hemoglobin at 13.1g/dl, mean corpuscular volume of 83 fl and a platelet count of 200,000 /mm^3. Total serum protein was 5.2 g/l, albumin was 4 g/l, alanine aminotransferase 20 U/l, alanine aminoaspartate 24 U/l, urea 25 mg/dl and creatinine 1.1 mg/dl. Urinalysis revealed no pathologic findings. The abdominal and the chest X-ray were normal and abdominal ultrasounds as well as an abdominal CT scan were within normal limits. Fecal, blood and urine cultures were also normal.

Endoscopy in the functional transverse colon loop was normal. When advancing the scope in the blind sigmoid colon loop the mucosa was normal. However, when pulling out the scope almost all blind colon loop was full of bleeding petechiae (Figure 1).

Figure 1. Acute petechiae in a diversion colon loop



We believe that those acute petechiae represent the result of the acute compression-decompression phenomenon during endoscopy and represent a potential characteristic endoscopic hallmark of the so-called "diversion colitis".

Diagnosis of diversion colitis should be differentiated from other diseases with similar clinical manifestations. Clinical history is very important in order to correctly focus on the differential diagnosis (1).

Ischemic colitis is associated with cardiovascular

disorders, diabetes, hematological diseases and a history of abdominal operation. Endoscopic appearance is similar to diversion colitis but in severe cases longitudinal ulcerations and strictures may be found (2).

Medication associated colitis (e.g. nonsteroidal anti-inflammatory drugs) can cause a similar clinical presentation. Clinical history may put the suspicion and remission of the symptoms after medical deterioration will establish the diagnosis (3).

It is difficult also to separate recurrent active inflammatory bowel disease in a diverted colon from real diversion colitis. The presence of inflammatory bowel disease in the diverted colon segment prior to surgery, histologic findings such as granulomas, cellular infiltrate and lastly response to specific medical treatment (anti-TNF, corticosteroids) may be of help (4).

Furthermore, infectious colitis may mimic clinical manifestations of diversion colitis and it can be easily excluded with stool and tissue cultures.

Endoscopic findings of diversion colitis can mimic those seen in radiation colitis. Radiation colitis may occur from weeks to years after abdominal or pelvic irradiation. A thorough clinical history has a special place in its differentiation from diversion colitis (5).

Finally, endoscopic lesions in Henoch-Schonlein purpura are also similar to diversion colitis, but are more frequent in the second portion of the duodenum or in the terminal ileum (6).

Conflicts of interest: None declared.

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