# A Case of Terminal Ileitis

## Kazunori HOSHIKA, Junichi UCHIDA and Norio MIYASHIMA\*

Division of Gastroenterology, Department of Medicine, Kawasaki Medical School, Kurashiki 701-01, Japan

\* Department of Medicine, Kasaoka Daiichi Hospital, 1945 Yokoshima, Kasaoka, Okayama 714, Japan

Accepted for publication on May 8, 1993

**ABSTRACT.** A case of terminal ileitis followed by colonofiberscopic examination is reported. A 21-year-old man with anal bleeding was examined with a colonoscope. The lesion causing anal bleeding could not be detected but terminal ileitis was recognized. He was diagnosed and followed as Crohn's disease. Three months after the first examination, the ileitis was found to be almost healed. Because of the possibility of asymptomatic terminal ileitis, endoscopists should direct their attention to not only the large intestine but also the terminal ileum.

### Key words: ileitis — colonoscopy

Reports of acute terminal ileitis have increased, but the studies of terminal ileitis involving endoscopic examination are very rare. The following is a case of terminal ileitis without acute infection. Examination was performed with a colonofiberscope, and the results are discussed in the following case report.

### CASE REPORT

A 21-year-old man with anal bleeding visited our clinic. He had had anal pain for two or three months and sometimes found fresh blood in his stool. There were no complaints of diarrhea, fever, or right lower abdominal pain, and no disorders of the eyes were apparent. He had no past history, although his father had contracted gastric cancer.

The patient's height was 164 cm, body weight 60 kg, blood pressure 128/ 80 mmHg and pulse 68/minute regular. No eruption, anemia or jaundice was observed. Ausclatation of the heart and lungs was normal. Palpation indicated tenderness of the epigastrium and left lower abdomen, but not the right lower abdomen.

Laboratory data indicated no anemia by peripheral blood examination. Blood chemical examination and urinalysis findings were normal. ESR was not accelerated and CRP was normal. Neither a plain roentgenogram of the chest and abdomen nor an ultrasonogram of the abdomen showed any abnormal findings. Wassermann's reaction was negative.

He was examined with a colonoscope. The lesion causing anal bleeding was not detected but endoscopic examination indicated reddish swollen folds without aphtha or ulcers in the terminal ileum (Fig. 1). Histological examination of a biopsied specimen taken from the lesion showed atrophic



Fig. 1. Endoscopic examination shows reddish swollen folds without aphtha and ulcers in the terminal ileum.



Fig. 2. Histological examination of the biopsied specimen reveals granuloma (HE stain,  $\times$  80).

#### A Case of Terminal Ileitis

glands, edema, small vessel dilatation, congestion, infiltration of plasma cells, lymphocytes and eosinocytes and granuloma in the mucosa (Fig. 2. HE stain,  $\times 80$ ). A barium enema performed on the same day showed swollen folds and nodular protruding lesions in the terminal ileum (Fig. 3a).

A roentgenogram of the upper gastrointesinal series and small intestine failed to show any abnormal findings except the lesion of the terminal ileum.

A culture examination of the specimen taken from the lesion showed absence of pathological bacteria and *Yersinia enterocolitica*. ACE was 11.8 IU/1. IgA, IgG and IgM were normal.

The patient was diagnosed and followed as an early stage of Crohn's disease and was given bifidus. Three months later, endoscopic examination indicated that the area of the lesion had almost completely healed; tiny reddish 5-7 mm nodulated lesions remained (Fig. 4). Histological examination of a specimen from the lesion showed congestion, edema and infiltration of



Fig. 3 a: A barium enema shows swollen folds and nodular protruding lesions in the terminal ileum.b: Three months later, a barium enema shows only tiny protruding lesions remaining in the terminal ileum.

lymphocytes and eosinocytes but no granuloma. A barium enema indicated only tiny lesions protruding from the terminal ileum (Fig. 3b).

### DISCUSSION

The present case of terminal ileitis, discovered by chance during a colonoscopic examination for anal bleeding, was followed as Crohn's disease for three months, at which time, it had almost healed.

Terminal ileitis is caused by infections, such as *Yersinia enterocolitica*, *Campylobacter jejuni*, *Salmonella* and tuberculosis, Crohn's disease, Behçet's disease, protein losing enteritis and ischemic colitis.<sup>1-4)</sup> Infection, except for that of tuberculosis, is characterized by acute infection and ulcers can usually be observed in the terminal ileum. In the present case, however, acute infection was not evident and bacterial examination failed to support a diagnosis of infectious enterocolitis. Behçet's disease, protein losing enteritis and ischemic colitis were not indicated by his history, laboratory findings and colonoscopic examination.

Granuloma in the mucosa can be seen in patients with tuberculosis of the small intestine, sarcoidosis or Crohn's disease. Granuloma in lymph nodes has been observed as infection caused by *Yersinia enterocolitica* but not in the mucosa. The possibility of a *Yersinia enterocolitica* infection was thus ruled out. The patient was followed as an early stage of Crohn's disease. Whether a lesion without aphtha can heal naturally in Crohn's disease has not been clarified.<sup>5)</sup> Only a follow up study will indicate whether recurrence of the present lesion is possible. This case supports the possible existence of



Fig. 4. Endoscopic examination shows the ileitis to be almost healed.

#### A Case of Terminal Ileitis

asymptomatic terminal ileitis, but it may not actually be a rare disorder.

The present case also demonstrates that, in consideration of the possibility of asymptomatic terminal ileitis, attention should be directed to not only the large intestine but also the terminal ileum.

#### REFERENCES

- Usui A, Hachisuka K, Yamaguchi A, Kondo S, Hori A, Hirose S, Hukata S, Miyachi M, Watanabe H, Ishibashi H, Kato J, Kanda H: Clinical study of acute terminal ileitis. Nippon Rinshou Geka Gakkai Zasshi 46: 902-909, 1985 (in Japanese)
- 2) Kida T, Tajima T, Yamabe K, Maeda Y: A colonofibercopic study of inflammatory lesions of the terminal ileum. Progr Digest Endosc **19**: 105-108, 1981 (in Japanese)
- Maruoka H, Taguchi S, Kurosu T, Horimukai F, Miyaoka M, Saitou T, Ashizawa S, Hishiki S : A case of acute terminal ileitis due to *Yersinia enterocolitica* infection. Progr Digest Endosc 35: 327-330, 1989 (in Japanese)
- 4) Kayaba Y, Endo K, Ookata T, Sato T, Unoura A, Watanabe H, Funada A: A case of acute terminal ileitis due to *Yersinia enterocolitica* infection with special reference to endoscopic and biopsy findings at terminal ileum lesions. Gastroenterol Endosc 28: 2389-2393, 1986 (in Japanese)
- 5) Tada M, Shimizu S, Îso A, Ohtsuka H, Ogawa M, Aoki Y, Aoike A, Kawai K: Enteroscopy in Crohn's disease. Gastroenterol Endosc **31**: 83-89, 1989 (in Japanese)