

# Localized Giant Inflammatory Polyposis of the Ileocecum Associated with Crohn's Disease: Report of a Case

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## Key Words

Crohn's disease · Localized giant inflammatory polyposis · Ileus

## Abstract

Although inflammatory polyposis is one of the common complications in patients with inflammatory bowel disease, it is rare that each poly grows up to more than 1.5 cm. We describe a case of localized giant inflammatory polyposis of the ileocecum associated with Crohn's disease. A 40-year-old man who had been followed for 28 years because of Crohn's disease was hospitalized for right lower abdominal pain after meals. Barium enema and colonoscopy showed numerous worm-like polyps in the ascending colon which grew up to the hepatic flexure of the colon from the ileocecum, causing an obstruction of the ileocecal orifice. Since histology of a biopsy specimen taken from the giant polyps showed no dysplasia, he was diagnosed with ileus due to the localized giant inflammatory polyposis. A laparoscopically assisted ileocecal resection was performed. The resected specimen showed that the giant polyps grew up into the ileocecum. Histological examination revealed inflammatory polyposis without neoplasm. Generally, conservative treatment is indicated for localized giant inflammatory polyposis because this lesion is regarded as benign. However, occasionally serious complications arise, requiring surgical treatment.

## Introduction

Inflammatory polyposis is one of the common complications in patients with inflammatory bowel disease (IBD) [1–4]. Each polyp is generally less than 1.5 cm in size, but in rare instances may grow up to more than 1.5 cm, forming a worm-like or mass-like appearance called localized giant inflammatory polyposis [5]. In a recent review, more

than 70 cases of localized giant inflammatory polyposis associated with IBD were described [6]. The macroscopic appearance is so similar to neoplasm that it is hard to correctly diagnose localized giant inflammatory polyposis by barium enema and colonoscopy. This condition has no specific symptoms, but occasionally causes serious complications such as colonic obstruction or intussusception, which require surgical treatment. Here we report a case of localized giant inflammatory polyposis of the ileocecum associated with Crohn's disease. In this case, ileus occurred as a complication and, as a result, laparoscopically assisted surgery was performed.

### Case Report

A 40-year-old man who had a 28-year history of Crohn's disease was seen in our clinic with continuous right lower abdominal pain for a 2-month period. He had been in remission on medical treatment, including steroids and trophotherapy for the past 10 years. Because the abdominal pain occurred after meals and gradually increased, he was hospitalized for examination and treatment.

Physical examination showed mild tenderness and bowel distension in the right lower abdomen. Laboratory examination including serum levels of tumor markers such as carcinoembryonic antigen and carbohydrate antigen 19-9 showed no abnormalities. Abdominal computed tomography demonstrated many ring-shaped high densities in the ascending colon and a distended terminal ileum. Barium enema showed many giant polyps which grew up to the hepatic flexure of colon from the ileocecum and scattered small polyps in the ascending colon (fig. 1a). In a colonoscopy, many worm-like polyps in the ascending colon, the surface of which was reddish and edematous, were detected (fig. 1b). They obstructed the ileocecal orifice. It was hard to distinguish correctly benign from malignant lesions by barium enema and colonoscopy. A histological examination of biopsy specimen taken from the lesion revealed only inflammatory changes without dysplasia. Thus our diagnosis was that localized giant inflammatory polyposis associated with Crohn's disease caused the ileus and that surgical treatment was required.

On laparotomy, the ascending colon appeared almost normal, except for the presence of worm-like polyps. We therefore attempted to preserve the ascending colon. A laparoscopically assisted ileocecal resection was performed. A 50 cm length of the terminal ileum involving the distended bowel was removed. The resected specimen showed that the giant polyps grew up into the ileocecum as well as an inflammatory polyposis including mucosal bridges (fig. 2). The longest polyp was 13 cm in size. The terminal ileum contained a longitudinal ulcer 15 cm in length. Histologically, there was marked infiltration of inflammatory cells in the mucosa of the ileum. Some non-caseous granulomas involving giant cells were located in the muscularis propria. They were pathological findings to indicate Crohn's disease. The giant polyps demonstrated a marked infiltration of inflammatory cells in the mucosa and the edematous submucosa (fig. 3). No dysplasia was found. Finally, the pathological diagnosis was inflammatory polyposis of the ileocecum associated with Crohn's disease. His postoperative course was uneventful and he has been doing well with minimal medication for more than three years after the operation.

### Discussion

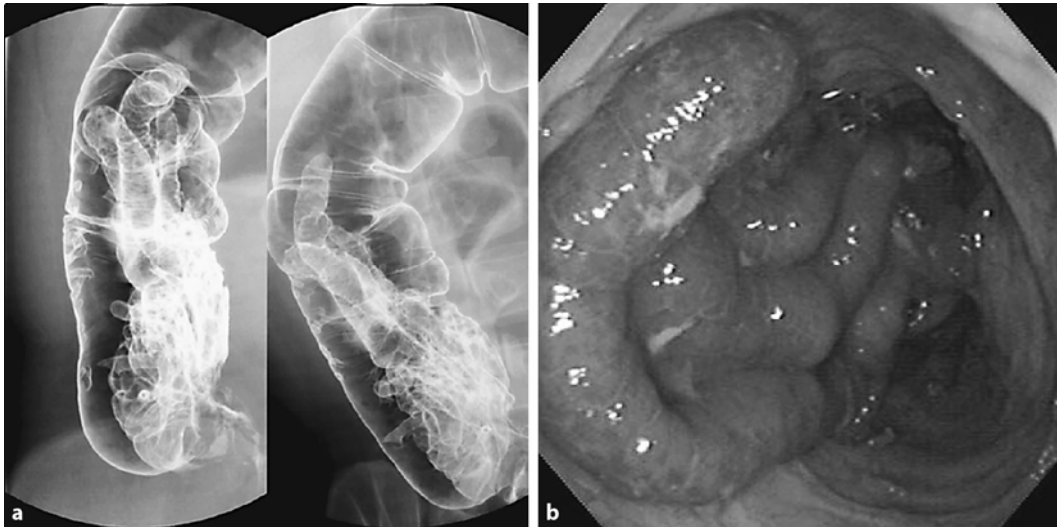
It has been reported that inflammatory polyposis is found in approximately 10–20% of patients with ulcerative colitis [1, 2, 7], but also occasionally occurs in Crohn's disease [3, 4]. An inflammatory polyposis may rarely grow to a giant size, forming varying shapes such as a mass-like, worm-like appearance and is referred to as localized giant inflammatory polyposis [5]. An arbitrary criterion of 1.5 cm or greater in size has been accepted for giant polyposis [5]. This lesion usually consists of segmental and circumferential colonic lesions [8]. It is more likely to occur in patients in a quiescent state in Crohn's disease, although it may be found in both the active and quiescent phases of IBD [7]. Our patient had been in a quiescent phase of Crohn's disease on medical treatment for the past 10 years. Kelly et al. previously reviewed 53 cases of localized giant inflammatory polyposis with IBD [8]. In their report, 63% of cases had Crohn's disease

and 37% had ulcerative colitis as underlying disease. The most frequent sites of colonic involvement were the transverse colon, followed by the sigmoid, descending colon, and cecum. It is recognized that inflammatory polyposis is a secondary product, resulting from mucosal regeneration after ulceration, whereas localized giant inflammatory polyposis appears to result from enlarged mucosal tags which are dragged along by the fecal stream and peristalsis [8]. However, the factors responsible for the production remain largely unknown. Localized giant inflammatory polyposis does not cause any specific symptoms except clinical symptoms due to the underlying IBD, so conservative treatment is generally indicated. However, this lesion may occasionally cause severe complications such as colonic obstruction or intussusception due to a mass effect [4, 6, 8, 9]. 23–55% of patients with this lesion have complete or incomplete colonic obstruction [6, 9]. Thus, a patient with localized giant inflammatory polyposis should be followed up regularly by barium enema or colonoscopy. When these complications occur, surgery is usually necessary for treatment. In our case, it was considered that a group of giant polyps as well as thickened and sclerotic intestinal wall in the ileocecal portion was the source of the obstruction of the ileocecal orifice.

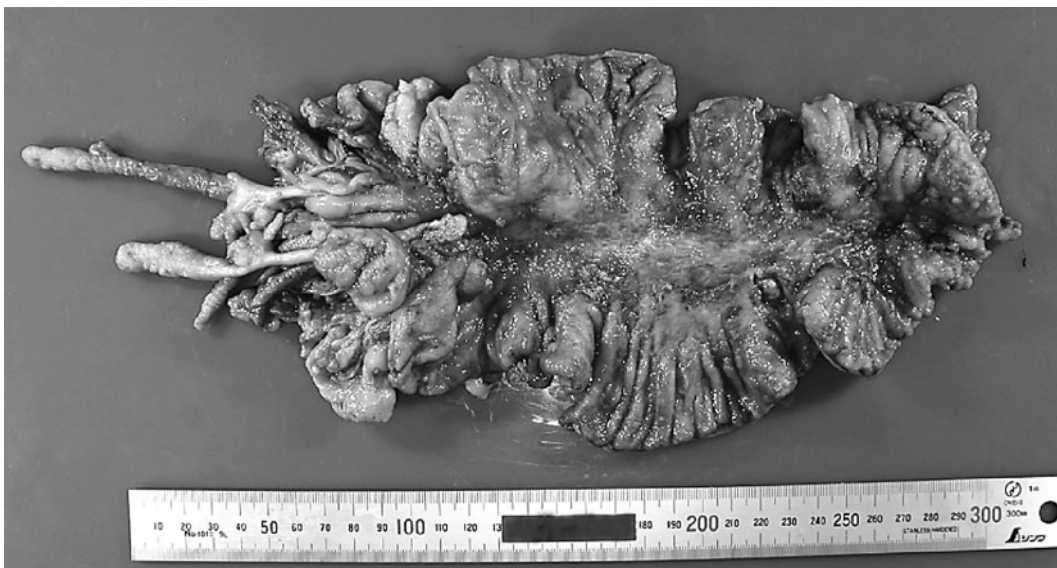
Radiologically or endoscopically, localized giant inflammatory polyposis is often mistaken for a neoplastic lesion due to variations in the appearance of the lesion. In some cases, excessive surgery is performed because of a misdiagnosis such as carcinoma [10]. Because of this, the endoscopic biopsy specimen taken from the lesion was examined histologically to ensure a correct diagnosis. Magnifying endoscopy is useful for examining the histology of this disease [10]. This technique is used because it can show the fine surface structure of the lesion and can distinguish neoplastic from non-neoplastic lesions to divide the pit patterns prior to histological examination. Localized giant inflammatory polyposis is generally regarded as a benign lesion [7]. However, Kusunoki reported a case of occult cancer in localized giant inflammatory polyposis associated with ulcerative colitis [11]. He suggested that this lesion might be a factor involved in carcinogenesis and one of the patterns of carcinoma development in ulcerative colitis. Because of this, an extensive pathological examination after the operation is also important.

We present a case of localized giant inflammatory polyposis of the ileocecum associated with Crohn's disease. It is thought that this lesion typically requires no surgical treatment, unless it is accompanied by severe complications. However, clinicians should keep in mind that obstructions can develop and that a potential for malignancy exists.

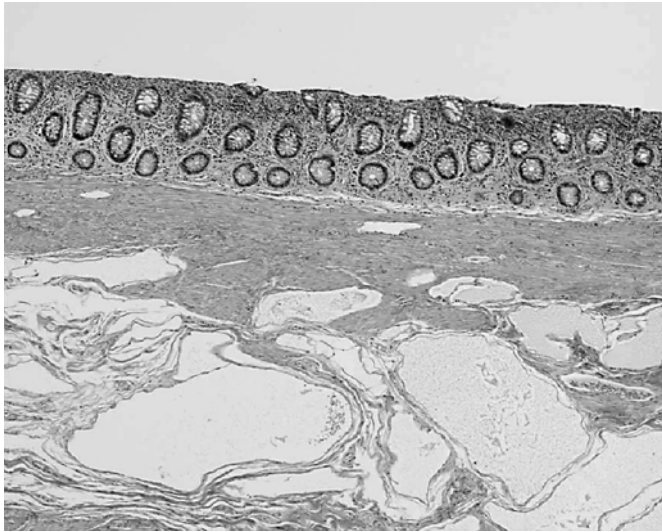
**Fig. 1.** **a** Barium enema showed many giant polyps which grew up to the hepatic flexure of the colon from the ileocecum and scattered small polyps in the ascending colon. **b** Colonoscopy detected many worm-like polyps in the ascending colon which obstructed the ileocecal orifice.



**Fig. 2.** Macroscopic findings of the resected specimen. The worm-like giant polyps grew up from the ileocecum. The longest polyp was 13 cm in size. There were mucosal bridges in the polyposis. The terminal ileum had a 15 cm longitudinal ulcer.



**Fig. 3.** Microscopic findings of the giant polyps (H&E stain  $\times 40$ ). There was a marked infiltration of inflammatory cells into the mucosa. The submucosa showed significant edema. The pathological diagnosis was inflammatory polyposis without dysplasia.



## References

- 1 Jalan KN, Walker RJ, Sircus W, MacManus JPA, Prescott RJ, Card WI: Pseudopolyposis in ulcerative colitis. *Lancet* 1969;2:555–559.
- 2 De Dombal FT, Watts JM, Watkinson G, Goligher JC: Local complications of ulcerative colitis: Stricture, pseudopolyposis, and carcinoma of colon and rectum. *Br Med J* 1996;1:1442–1447.
- 3 Blum JC, Kelvin FM: Radiologic spectrum of polypoid lesion in ulcerative colitis and Crohn's disease. *South Med J* 1981;74:850–855.
- 4 Freeman AH, Berridge FR, Dick AP, Gleeson JA, Zeegen R: Pseudopolyposis in Crohn's disease. *Br J Radiol* 1978;51:782–787.
- 5 Hinrichs HR, Goldman H: Localized giant pseudopolyposis of the colon. *J Am Med Assoc* 1968;205:248–249.
- 6 Ooi BS, Tjandra JJ, Pedersen JS, Bhathal PS: Giant pseudopolyposis in inflammatory bowel disease. *Aust NZ J Surg* 2000;70:389–393.
- 7 Ferguson CJ, Balfour TW, Padfield CJ: Localized giant pseudopolyposis of the colon in ulcerative colitis. Report of a case. *Dis Colon Rectum* 1987;30:802–804.
- 8 Kelly JK, Langevin JM, Price LM, Hershfield NB, Share S, Blustein P: Giant and symptomatic inflammatory polyps of the colon in idiopathic inflammatory bowel disease. *Am J Surg Pathol* 1986;10:420–428.
- 9 Forde KA, Gold RP, Holck S, Goldberg MD, Kaim PS: Giant pseudopolyposis in colitis with colonic intussusception. *Gastroenterology* 1978;75:1142–1146.
- 10 Murata I, Kume K, Yoshikawa I, Kanagawa K, Hata H, Otsuki M: Localized giant pseudopolyposis of the colon in ulcerative colitis: use of the magnifying endoscope. *Gastrointest Endosc* 1999;50:869–871.
- 11 Kusunoki M, Nishigami T, Yanagi H, Okamoto T, Shouji Y, Sakanoue Y: Occult cancer in localized giant pseudopolyposis. *Am J Gastroenterol* 1992;87:379–381.