[症例報告]Inflammatory fibroid polyp of the ileum presenting with intussusception : A case report and a review of the literature

Inflammatory fibroid polyp of the ileum presenting with intussusception: A case report and a review of the literature

Takeshi Tomiyama[1], Koji Kawano[1], Manabu Kudaka[1], Hiroki Sunagawa[1], Katsumi Taira[1] Takao Higa[1], Tsuyoshi Teruya[1], Kensei Ohshiro[1], Kazuya Yamashiro[1], Yukio Inafuku[1] Hiroshi Kudaka[1], Mitsuo Yogi[1] and Yusei Arakaki[2]

[1] *Department of Surgery and* [2] *Department Pathology, Naha City Hospital, 2-31-1 Furujima, Naha, Okinawa, Japan*

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ABSTRACT

Inflammatory fibroid polyps (IFPs) of the small intestine are relatively rare. We report a case of IFP of the ileum presenting with intussusception, and we review the pertinent literatures. A 39-year-old woman was admitted to our hospital because of intermittent abdominal pain and vomiting. Abdominal ultrasonography and computed tomography revealed small bowel obstruction due to intussusception. An emergency laparotomy was performed because of signs of impending acute intestinal obstruction. At surgery, ileo-colic intussusception caused by an ileal polyp was found. A partial resection of the ileum including the polyp was carried out. Pathological diagnosis of the polyp was IFP. IFP should be included in the differential diagnosis of adult intussusception. IFPs have no malignant potential, and surgical resection is curative. *Ryukyu Med. J., 20(2)77~80, 2001*

Key words: inflammatory fibroid polyp, intussusception

INTRODUCTION

The inflammatory fibroid polyp (IFP) is a simple localized lesion that arises in the submucosa of the gastrointestinal tract, usually in the stomach[1]. IFPs of the small intestine are relatively uncommon and usually presents with intussusception and obstruction[2]. Here we report an IFP of the ileum presenting as intussusception, and a review of the pertinent literatures.

CASE REPORT

A 39-year-old woman was admitted to our hospital with a 4-month history of intermittent abdominal pain. Her symptoms became worse 4 days before admission. She complained of more frequent colicky abdominal pain, anorexia, nausea and vomiting. Her past medical history revealed a cesarean section and a blood transfusion. Physical examination on admission showed mild tenderness in the epigastric region but normoperistaltic bowel sounds. The patient had a low grade fever (37.5℃). Her WBC was 11900/mm^3, her peripheral eosinophil count was normal, and her other laboratory tests were within the normal range. Abdominal X-ray disclosed a small bowel obstruction. An abdominal ultrasonography showed a multicentric ring sign indicating intussusception (Fig. 1). Abdominal computed tomography depicted an ileo-cecal intussusception with a well-defined intraluminal solid mass (Fig. 2). An emergency laparotomy was performed due to signs of an impending acute intestinal obstruction. At surgery, an ileo-colic intussusception caused by an ileal polyp was found (Fig. 3). A partial resection of the ileum including the polyp, 30cm proximal to the ileo-cecal valve and an end-to-end

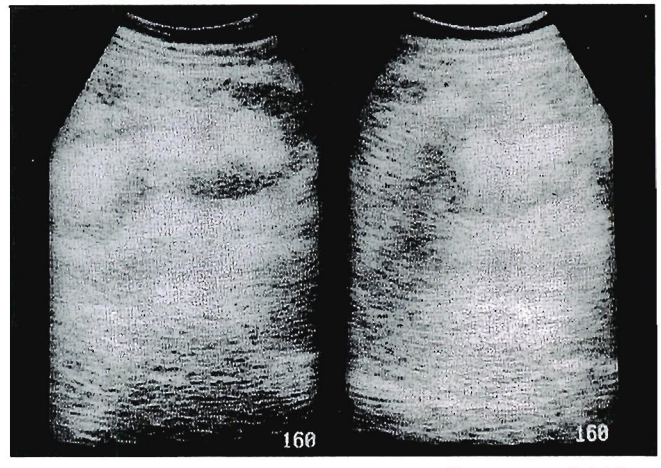

Fig. 1. Abdominal ultrasonography revealing a pseudokidney sign in the longitudinal view (left, arrow) and the target sign on transverse view (right, arrow *head*).

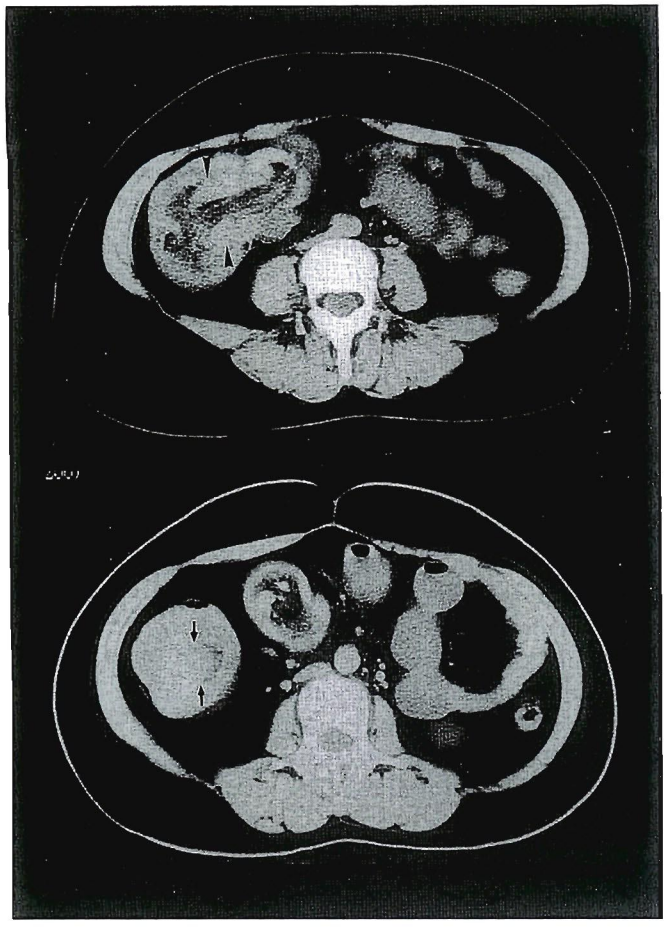

Fig. 2 Abdominal computed tomography showing the invaginated ileal segment in the ascending colon (upper, arrow head) and the intraluminal solid mass (lower, arrow).

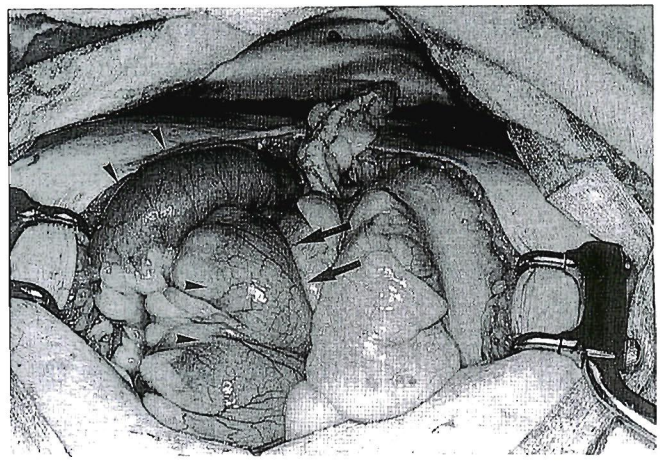

Fig. 3 Intraoperative macrophotograph of an ileo-colic intussusception (arrow) and the dilatated proximal ileum (arrow head).

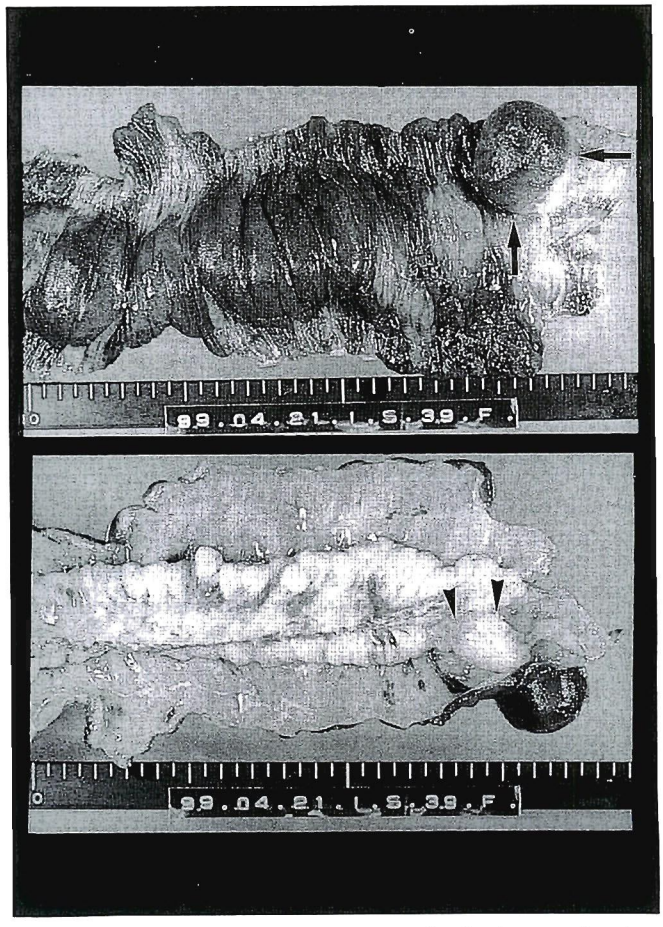

Fig. 4 Gross postoperative pathological examination revealing a sessile polypoid lesion in the mucosal side (upper, arrow) and also protruded lesion in the serosal side (lower, arrow head).

anastomosis were carried out. Grossly, the lesion revealed a dumbbell-shaped sessile lesion measuring 3 cm in diameter. The mucosa was focally ulcerated (Fig. 4). Microscopically, the lesion consisted essentially of a mass of loose connective tissue. The main cells were spindle-shaped fibroblasts and inflammatory cells, including eosinophils. Some perivascular concentric arrangement of fibroblasts (onion skin formations) were also present. The pathological diagnosis was ileal IFP (Fig. 5). The patient made an excellent recovery and was well on discharge. She has been doing well with no recurrence, 1 year after surgery.

DISCUSSION

IFPs are localized submucosal polypoid lesions of the gastrointestinal tract, consisting of fibrous connective tissue, blood vessels and inflammatory cell infiltrate, usually with a varying number of eosinophils[1]. Since the IFP was first described by Vanek in 1949 as a "gastric submucosal granuloma with eosinophilic infiltration"[3], many different terms have been used to describe it, including eosinophilic granuloma[4], inflammatory pseudotumor[5], and so on. The term inflammatory fibroid polyp first

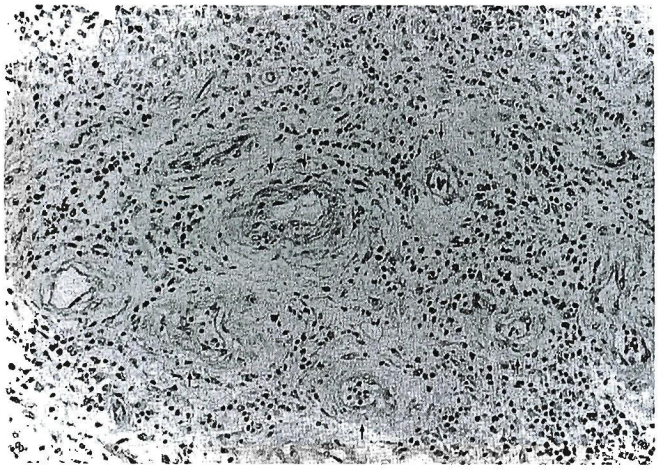

Fig. 5 Microscopic findings demonstrated some perivascular concentric arrangement consisting of a central vessel and concentric layers of elongated cells (onion skin formations) (arrow) (HE ×200).

proposed by Helwig and Ranier[6] for the gastric polyp in particular has gained acceptance for similar lesions throughout the gastrointestinal tract. There is general agreement that these lesions are predominantly submucosal, nonencapsulated and composed of fusiform cells, fibrous tissue and blood vessels forming characteristic concentric patterns, so-called onion-skin formations. A variable inflammatory cell infiltration composed of eosinophils, lymphocytes and plasma cells has been reported in all reported cases[7]. The cause and genesis of IFP have remained obscure. Bacterial, chemical, metabolic and traumatic stimuli have been suggested to initiate the lesions[6]. The histogenetic origin of the IFP has been controversial. Recent immunohistochemistry and electron microscopy studies suggest that IFPs represent reactive lesions that are fibroblastic in nature[8], but some authors report a myofibroblastic[9] or vascular origin[7]. In a previous review, the most common site was the stomach, followed by the ileum[1]. IFPs of the colon, jejunum, duodenum and esophagus are extremely rare[1]. Most patients with an IFP of the small bowel presented with clinical evidence of small bowel obstruction, in most cases was due to intussusception[10]. Only occasional intestinal bleeding and anemia have been reported[5]. The surgical outcome of this disease is good and only one case of recurrence has been reported[11]. One reported case had two polyps; multiple IFPs in the intestine are extremely rare[12]. IFPs have no malignant potential, and surgical resection is considered curative. It is difficult to make an accurate preoperative diagnosis. Surgical resection of the lesion for both diagnosis and treatment is required in most cases. We suggest that IFP of the small intestine should be included in the differential diagnosis of intussusception or small bowel obstruction.

REFERENCES

1) Johnstone J.M. and Morson B.C.: Inflammatory fibroid polyp of the gastrointestinal tract. Histopathology. 2: 349-361, 1978.
2) Nkanza N.K., King M. and Hutt M.S.R.: Intussusception due to inflammatory fibroid polyps of the ileum: a report of 12 cases from Africa. Br.J.Surg. 67: 271-274, 1980.
3) Vanek J.: Gastric submucosal granuloma with eosinophilic infiltration. Am.J.Pathol. 25: 397-411, 1949.
4) Booher R.J. and Grant R.N.: Eosinophilic granuloma of the stomach and small intestine. Surgery 30: 388-397, 1951.
5) LiVolsi V.A. and Perzin K.H.: Inflammatory pseudotumors (inflammatory fibrous polyps) of the small intestine: A clinicopathologic study. Digest. Dis. 20: 325-336, 1975.
6) Helwig E.B. and Ranier A.: Inflammatory fibroid polyps of the stomach. Surg. Gyncol. Obstet. 96: 355-367, 1953.
7) Trillo A.A. and Rowden G.: The histogenesis of inflammatory fibroid polyps of the gastrointestinal tract. Histopathology 19: 431-436, 1991.
8) Suster S. and Robinson M.J.: Inflammatory fibroid polyp of the small intestine: Ultrastructual and immunohistochemical observations. Ultrastruct. Pathol. 14: 109-119, 1990.
9) Navas-Palacios J.J. Colina-Ruizdelgado F. Sanchez-Larrea M.D. and Cortes-Cansino J.: Inflammatory fibroid polyps of the gastrointestinal tract. An immunohistochemical and electron microscopic study. Cancer 51: 1682-1690, 1983.
10) Harned R.K., Buck J.L. and Shekitka K.M.: Inflammatory fibroid polyps of the gastrointestinal tract: radiologic evaluation. Radiology 182: 863-866, 1992.
11) McGreevy P., Doverneck R.C., McLeary J.M. and Miller F.A.: Recurrent eosinophilic infiltrate (granuloma) of the ileum causing intussusception in a 2-year-old child. Surgery 61: 280-284, 1967.
12) Shimer G.R. and Helwig E.B.: Inflammatory fibroid polyps of the intestine. A.J.C.P. 81: 708-714, 1984.