A Large Inflammatory Fibroid Polyp in the Sigmoid Colon Treated by Endoscopic Resection

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Abstract

Inflammatory fibroid polyp (IFP) is a rare, localized, nonneoplastic lesion originating from the submucosa of the gastrointestinal tract. Microscopically, these lesions are made up of a complex network of variable-size blood vessels and diffuse inflammatory cells contained in the edematous stroma. They are most often found in the stomach, followed by the small intestine, and rarely in the esophagus or the large intestine. We report a case of sigmoid colonic IFP presenting bloody stool treated with endoscopic resection.

Key words: Inflammatory fibroid polyp, Endoscopic resection, sigmoid colon

Introduction

Inflammatory fibroid polyp (IFP) is a rare polypoid lesion of the gastrointestinal tract. Most IFP occur in stomach; colonic occurrence is rare (1, 2). In the colon, most cases of the IFP tend to be found in the right-sided colon (3). IFP develops through the benign reactive process in which neither recurrence nor metastasis occur (4). But, laparotomy for removal has been performed in most IFPs due to the large size and the epithelial morphology of the polyp. We present a patient a large fibroid polyp located in the sigmoid colon, which was successfully treated by endoscopic polypectomy.

Case Report

A 28-year-old man with a painless hematochezia came to St. Mary’s Hospital, Seoul, Korea. Physical examination revealed flat and soft abdomen without pain or tenderness. Hemoglobin and hematocrit were 10.1 g/dL and 30.5%, respectively. A colonoscopy revealed a large pedunculated polyp, 4.0 cm in size, at the mid-sigmoid colon. The surface was covered with thin exudates. After brisk water washing, a lobulated, edematous and erythematous surface was seen (Fig. 1). Though the histology of tissue specimens obtained with conventional biopsy forceps only showed the hyperplastic mucosal change, we could not rule out the possibility of other benign or malignant lesions originating from epithelium. Therefore, we performed an endoscopic polypectomy. The lesion was enlooped with the snare, resected at the lower third of the stalk and retrieved by using a net retriever (Fig. 2). The microscopic features revealed the proliferation of spindle cell and infiltration of inflammatory cells, such as plasma cells and eosinophils, and an ‘onion-skin-like arrangement’ of fibroblasts around the small vessels, consistent with inflammatory fibroid polyp (Fig. 3). He was discharged without complication.

Discussion

In 1953, Helwig and Ranier proposed the term of ‘inflammatory fibroid polyp’ for eosinophilic granuloma in the gastrointestinal tract, which is generally accepted at the present time (5). It consists of loose connective tissue with abundant inflammatory cells, such as plasma cells and eosinophils. The fibroblasts appear as a spiral arrangement around the small vessels or onion-skin-like appearance. IFPs are mainly located in the stomach, less frequently in the ileum, and occasionally in the colon or esophagus (3).

To the best of our knowledge, only 27 cases of IFPs in the large intestine have been reported, including this case. We reviewed the clinical features such as the characteristics of the patient, the location, size, and gross appearance of the lesions, and treatments used for the lesions (6-13). The
Endoscopic findings revealed a large pedunculated polyp with an elongated stalk in the sigmoid colon. The multilobulated surface of the polyp was a reddish color.

The polypoid lesion was completely resected without any complications. The 4×3 cm sized polyp had a 1.5 cm stalk.

The mean size of polyps in the large intestine was about 4.1 cm. The locations of polyps were as follows: in the cecum in 12 cases, ascending colon in 5 cases, transverse colon in 6 cases, descending colon in 1 case, sigmoid colon in 2 cases (including this case), and rectum in 1 case. These findings suggest that most colon polyps are located in the right-side (85%). Endoscopically, the IFPs appear to have a smooth sessile or pedunculated configuration (about 1:1 ratio) and most have erythematous or ulcerative mucosa, which confounded us as we thought they were other epithelial lesions.

The symptoms in the large bowel are abdominal pain (50%), bloody stool (38%), weight loss (19%), diarrhea (15%), and intussusceptions (4%). Most cases of IFPs in the large intestine were treated surgically except for 5 cases. Among these 5 cases, in three cases of IFP the lesion was located in the cecum and in one case the lesion was in the ascending colon. Therefore, this case is the only IFP located in the sigmoid colon, which was successfully treated by endoscopic polypectomy. In the past decades, surgical excision was the main treatment of choice for the colonic IFPs, because tumor size is relatively large and they often cannot be differentiated from malignant polyp endoscopically or even pathologically. However, IFP is a benign lesion that does not metastasize, rarely recurs, or is rarely continuous with the muscularis propria (14, 15). Endoscopic ultrasonography provides the most useful information regarding the tumor in gastrointestinal lumen, helps to distinguish submucosal tumor, and assists in determining the endoscopic removal (16). Endoscopic mucosal resection or submucosal dissection through the elevation of the lesion could render most benign submucosal tumors restricted to the submucosa to be resected by endoscopic treatment, even if these tumors appear to have a smooth sessile pattern (17, 18). Consequently, the endoscopic resection is the best treatment of choice for most IFPs, if we are fully aware of the precise endoscopic and clinical features.

References


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