Inflammatory Myoglandular Polyps Causing Hematochezia

Sook Hee Chung*, Byoung Kwan Son*, Young Sook Park*, Yun Ju Jo*, Seong Hwan Kim*, Dae Won Jun*, Eun Sun Cheong*, Won Mi Lee[†], and Jong Eun Ju[†]

Departments of *Internal Medicine and [†]Pathology, Eulji General Hospital, Eulji University School of Medicine, Seoul, Korea

We report herein three cases of inflammatory myoglandular polyp (IMGP) presenting as hematochezia. The polyps had pedunculated, red, and smooth features, and were 12, 12, and 15 mm in diameter and located in the sigmoid colon, transverse colon, and rectum, respectively. Endoscopic polypectomies were performed. Histologic examination of the recovered specimens revealed inflammatory granulation in the lamina propria mucosa, proliferation of smooth muscle, and hyperplastic glands with cystic dilatation. The three colon polyps were finally diagnosed both clinically and histologically as IMGP. Endoscopists should bear in mind that a polyp featuring endoscopic findings of pedunculation or semipedunculation; a red, smooth, spherical, and hyperemic surface; and patchy mucosa exudation and erosion is likely to be an IMGP. (*Gut Liver* 2010;4:146-148)

Key Words: Inflammatory myoglandular polyp; Endoscopic polypectomy; Gastrointestinal hemorrhage

INTRODUCTION

Inflammatory myoglandular polyp (IMGP) was described by Nakamura in 1992.¹ It is non-neoplastic epithelial polyp and located in colon and rectum.² Histologically, IMGP has special features such as inflammatory granulation tissue in the lamina propria mucosa, proliferation of smooth muscle and hyperplastic glands with cystic dilatation.²⁻⁶ Here, we report three cases of IMGP which were respectively located in the sigmoid colon, transverse colon and rectum.

CASE REPORT

A 22-year-old woman, a 28-year-old man and a 59-year-old woman were admitted to our hospital because they had symptoms of hematochezia and blood clots in stool frequently. No special past medical or family history was identified. Laboratory test of blood and physical examination revealed no abnormal findings. The colonoscopy revealed 12 mm sized small, red, peduncular polyp in sigmoid colon (Fig. 1A), brownish, smooth polyp in transverse colon about 12 mm in diameter (Fig. 1B) and brownish polyp in rectum about 15 mm in diameter (Fig. 1C). Endoscopic polypectomies were performed. Histologic examination of specimen revealed inflammatory granulation in the lamina propria mucosa, proliferation of smooth muscle and hyperplastic glands with cystic dilatation (Fig. 2). Finally three polyps were diagnosed as IMGP, based on the histologic features. After endoscopic polypectomy, they had no hematochezia any more.

DISCUSSION

IMGP is a solitary and non neoplastic polyp, first described by Nakamura *et al.* in 1992.¹ IMGP is characterized by inflammatory granulation tissue in the lamina propria, proliferation of muscular mucosa and hyperplastic glands with cystic change.²⁻⁵ IMGP is not associated with inflammatory bowel disease.⁷ IMGP is rarely covered by fibrin cap. Fujino *et al.* reported that IMGP of the large intestine was predominantly located in distal colon, rectum and transverse colon.⁸ Although the causes of IMGP has not been known clearly, Nakamura proposed that

Correspondence to: Byoung Kwan Son

Department of Internal Medicine, Eulji General Hospital, Eulji University School of Medicine, 280-1, Hagye 1-dong, Nowon-gu, Seoul 139-711, Korea

Tel: +82-2-970-8188, Fax: +82-2-970-8621, E-mail: sbk1026@eulji.ac.kr

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Fig. 1. Colonoscopic findings of the polyps. (A) A red, peduncular polyp with mucosal hyperemic changes in the sigmoid colon, about 12 mm in diameter (Case 1). (B) A brownish, smooth polyp with mucosal exudation in the transverse colon, about 12 mm in diameter (Case 2). (C) A pinkish polyp with surface erosions in the rectum, about 15 mm in diameter (Case 3).

Fig. 2. Microscopic findings of a polypectomy specimen. (A) Cross-section showing numerous cystically dilated glands (H&E stain, ×20). (B) Hyperplastic glands with variable cystic changes and inflammatory granulation tissue in the lamina propria (H&E stain, ×40). (C) Proliferation of smooth muscle (arrow), eosinophilic infiltration, and inflammatory granulation in the lamina propria (H&E stain, ×100).

chronic trauma from intestinal peristalsis could affect the pathogenesis of IMGP.¹ Because IMGP is usually asymptomatic, it was detected incidentally on colonoscopy or barium enema. Tashiro *et al.* reported that the clinical manifestation of IMGP is mainly hematochezia.⁹ In endoscopic findings, IMGP is characterized by pedunculation or semipedunculation, red, smooth, spherical and hyperemic surface with patchy mucosa exudation and erosion.^{7,10} IMGP should be differentially diagnosed with inflammatory fibroid polyp (IFP), Peutz-Jegher-type polyps of juvenile polyps.^{9,10} Because endoscopic finding of IMGP could be similar with IFP and juvenile polyp, final diagnosis should be made by pathologic findings of specimens. Endoscopic resection of IMGP might not be necessary because IMGP does not change into malignancy. However, the final diagnosis of colonic IMGP depends on the pathological findings of endoscopic mucosal resection or endoscopic poly-

pectomy specimens. Since IMGP was first described by Nakamura *et al.* in 1992, case report about IMGP has been uncommonly reported.^{1,5,7,11-14} So, the importance of IMGP was estimated to be low when it was evaluated. Although IMGP shows proliferation of smooth muscle in lamina propria, there is no definite criteria to designate proliferation of muscle cell for diagnosis of IMGP.²⁻⁵ Proliferation of many inflammatory cell or hyperplastic glands with variable cystic change of IMGP is similar to other colon polyps. Therefore three different pathologists had different diagnosis for each one. In our three cases, special description of biopsy specimen was adequate to IMGP, which was special features such as inflammatory granulation tissue in the lamina propria mucosa, proliferation of smooth muscle and hyperplastic glands with cystic dilatation, but final diagnosis of three colon polyps were respectively retention polyp, inflammatory polyp and

hyperplastic polyp by different three pathologists. Because IMGP is not well known benign polyp⁷ and misdiagnosis is not critical in natural prognosis or clinical significances, there is relatively low attention of doctors. That may be the reason even if pathologist's description of IMGP is similar, the final diagnosis is different. It is not well known why IMGP causes hematochezia. Characteristics of tissue such as hyperemic surface and surface erosion in tissue of IMGP were thought to cause hematochezia. In the future, if colon polyps which caused hematochezia will be studied retrospectively and forwardly, there will be change of diagnosis rate of IMGP which was ignored or misdiagnosed all the while.

Conclusionally, although IMGP is not fatal or known to be not malignant, endoscopists should be more concerned about possibility of IMGP when there is a colon polyp causing hematochezia, which was characterized by pedunculation or semipedunculation, red, smooth, spherical hyperemic surface with patchy mucosa exudation and erosion in endoscopic findings. If histological diagnosis will be specialized, detection rate of asymptomatic IMGP through medical examination will be higher owing to increased interest in IMGP. Through accumulation of many case reports, not well known pathogenesis and natural course of IMGP will be evaluated in the future.

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