Pseudoinvasion in an Adenomatous Polyp of the Colon Mimicking Invasive Colon Cancer

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Pseudoinvasion or pseudocarcinomatous invasion in an adenomatous polyp of the colon can be unfamiliar to an endoscopist. Pseudoinvasion in an adenomatous polyp represents prolapse of the adenomatous epithelium into its stalk. In most cases its morphology does not differ from that of general adenomatous polyps, but in some cases it can morphologically mimic a malignant polyp with submucosal invasion due to mass-like lesioning of its stalk. This makes it difficult for endoscopists to differentiate pseudoinvasion from an adenoma by endoscopy; instead, endoscopic ultrasonography can provide useful information for differentiating these conditions. We report on an 82-year-old man who presented with a large pedunculated polyp with a thick stalk in the sigmoid colon, which mimicked a submucosal invasive carcinoma. The patient was diagnosed with pseudoinvasion in an adenomatous polyp after segmental resection of the sigmoid colon. (Gut and Liver 2009;3:130-133)

Key Words: Pseudoinvasion; Adenomatous polyps; Malignant polyp; EUS

INTRODUCTION

Benign entities associated with mucosal prolapse that may mimic invasive adenocarcinoma of colon are less common and may be an unfamiliar lesion to endoscopists. Among benign lesions, pseudoinvasion in an adenomatous polyp represents prolapse of the adenomatous epithelium into its stalk. Most pseudoinvasion in an adenomatous polyp is diagnosed pathologically after endoscopic polyectomy of colonic adenomas, especially pedunculated polyps. However, mass-like pseudoinvasion of the stalk in an adenomatous polyp, which is composed of large mucus-filled cyst, is relatively rare. In this type of lesion, although EUS may provide useful information, it is still difficult to distinguish a benign polyp with pseudoinvasion from a malignant polyp with submucosal invasion by endoscopy; therefore, endoscopic removal is not recommended.

We report an unusual case of a very large pedunculated polyp with thickened stalk that mimicked a malignant polyp with submucosal invasion.

CASE REPORT

An 82-year-old man was referred to our clinic because of a sigmoid mass suspicious of a malignancy. He had a medical history of hypertension and asthma. He had been suffering from constipation. At colonoscopy there were multiple colon polyps from the ascending colon to the sigmoid colon. Endoscopic polypectomies were performed. In the sigmoid colon, there was a large (2.5 cm in diameter) pedunculated polyp (Fig. 1A) with a thick, bulging stalk (Fig. 1B). When pushed down with biopsy forcep, the consistency of the mass was solid and movable (Fig. 1C).

In abdominal CT, there was a 3 cm sized intraluminal polypoid mass in the sigmoid colon without any evidence of pericolic infiltration or significant lymphadenopathy. Because of the thick, bulging stalk, EUS was performed to rule out malignant submucosal invasion in the stalk. Endosonographically, the bulging stalk was consisted of a hypoechoic structure with small hyperechoic areas in the submucosa which was thought to represent blood or mucus.
Fig. 1. Colonoscopy findings. A large (~2.5 cm) pedunculated polyp evident in the sigmoid colon (A) had a thick, bulging stalk (B) that was both solid and movable (C).

Fig. 2. Endoscopic ultrasonography findings. The bulging stalk was cystic with a hypoechoic structure and small hyperechoic areas in the submucosa.

cin in a cystic space (Fig. 2). This finding was somewhat different from a malignant submucosal invasion. However, segmental resection of the sigmoid colon was performed because it was difficult to exclude malignancy, especially invasive mucinous carcinoma by using endosonographical findings alone.

Gross examination revealed an intraluminal pedunculated polyp with bulbously thickened stalk, measuring 3.0×2.5×1.5 cm (Fig. 3A). On coronal section, a round, firm, submucosal, cystic lesion, measuring 2.5×1.5×1.5 cm was also noted in its stalk (Fig. 3B). Microscopically upper portion of the polyp revealed a villous adenoma with moderate epithelial atypia. It also revealed a submucosal large cystic lesion filled with abundant mucin in its stalk. The cyst was surrounded by fibrous granulation tissue and partially separated by irregular fibrous septa. Despite of careful examination of cyst, no lining epithelial cell was present. There were patchy inflammatory cell infiltration and hemosiderin deposition mainly in its fibrous wall and interlacing septa. Between adenoma and cystic lesion, there was focal aggregation of adenomatous glands showing luminal dilatation. Some of them were filled with mucin and showed focal denudation of lining epithelium associated with inflammatory infiltrations (Fig. 4).

The patient was finally diagnosed with pseudoinvasion in adenomatous polyp after segmental resection of the sigmoid colon.