Adult Colonic Intussusception: A Case Report

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Summary: Intussusception accounts for almost all cases of intestinal obstruction in children. In contrast, intussusception in adults is relatively rare. An 86-year-old Japanese female with rectal bleeding came to our hospital via ambulance. At first, colonoscopy findings revealed the sigmoid colon cancer. Ultrasonography showed a hypoechoic mass with a multiple concentric ring sign. Computed tomography showed a round fluid-filled cystic structure. Colon contrast studies demonstrated stenosis in the rectosigmoid colon. A laparotomy was performed. The sigmoid colon was intussuscepted to the rectosigmoid colon. We employed both rectosigmoid and sigmoid colon resection. The resected specimen showed that the disease was advanced sigmoid colon cancer with ulcer formation due to an ischemic change. Tumor was 4.5 cm×2.0 cm in size. The disease was histopathologically diagnosed as advanced sigmoid colon cancer, well-differentiated adenocarcinoma. We report here a case of adult intussusception due to the sigmoid colon cancer.

Key words intussusception in adult, sigmoid colon cancer

INTRODUCTION

Intussusception accounts for 80% of cases of intestinal obstruction in the pediatric population. On the other hand, intussusception in adults is relatively rare; it is responsible for only 5% of mechanical intestinal obstructions that occur in adults [1]. A controversy remains regarding the optimal management of this problem in the adult patient [2]. We report here a case of adult intussusception due to the sigmoid colon cancer preoperatively diagnosed by colonoscopy, ultrasonography and CT scan.

CASE REPORT

An 86-year-old Japanese female presenting with rectal bleeding came to our hospital via ambulance. At admission, her abdomen was distended. Tenderness was not observed. Laboratory data showed the white blood cell count to be 7500/mm³, hemoglobin 8.5 g/dl, hematocrit 25.5%, total protein 5.5 g/dl, and albumin 2.9 g/dl. No other abnormal finding was found in the blood chemistry. Serum carcinoembryonic antigen (CEA) level was 2.9 ng/ml (>2.5 ng/ml).

At first, colonoscopy was performed. It revealed the sigmoid colon cancer. Ultrasonography showed a hypoechoic mass containing internal echoes with a multiple concentric ring sign (Fig. 1). Computed tomography showed a round fluid-filled cystic structure (Fig. 2). Colon contrast studies demonstrated stenosis in the rectosigmoid (Fig. 3).

She simultaneously received exploratory laparotomy. A laparotomy was performed, and it was found that the sigmoid colon had intussuscepted to the rectosigmoid colon (Fig. 4A, B). There was no liver nor lymph node metastasis and no peritoneal implantation.

We resected both the rectosigmoid and sigmoid colon with lymph node dissection. The lead point of...
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Fig. 5. The tumor was 4.5 cm × 2.0 cm in size. The lead point of the intussusception was an area of advanced sigmoid colon cancer with ulcer formation due to an ischemic change.

Fig. 6. The histopathological diagnosis was (1) advanced sigmoid colon cancer, well-differentiated adenocarcinoma, and invasion to the proper muscle with slightly vessel infiltration, and also (2) ulcer due to ischemic change. (H.E. ×2.5)

implantation.

The disease was histopathologically diagnosed as advanced sigmoid colon cancer, well-differentiated adenocarcinoma, and invasion to the proper muscle slightly vessel infiltration, and also ulcer due to ischemic change (Fig. 6).

DISCUSSION

Intussusception of the colon in adults is an uncommon cause of lower gastrointestinal bleeding. Diagnosis of the intussusception of the colon is almost always performed by contrast radiography, computed tomography, magnetic resonance imaging, and abdominal ultrasonography [3,4].

In terms of ultrasonography, a multiple concentric ring in the intestine and "Hay-Fork" Sign are specific findings related to the intussusception of the colon [3-6]. It is easy to perform, reproducible, and less invasive than the other techniques [7]. A heterogeneous soft tissue mass and a target or sausage-shaped mass are specific findings for intussusception by means of computed tomography [8]. And stenosis in colorectal contrast studies is also a specific finding.

Thirteen cases of colonic intussusception diagnosed by colonoscopy was reported in the Japanese literature [9]. Concerning the prognosis of intussusception in adults, it is often due to a malignant lesion, usually a carcinoma [2,10]. A pathologic cause was identified in 85% of patients with small bowel lesions, and 80% of large bowel lesions were malignant [2]. Therapy for colonic intussusception is directed to the reduction of the intussusception and resection of the lead point in order to prevent recurrence. Particularly for cases in which the intussusception is due to a malignant lesion, both lead point and intussuscepted lesion must be resected. Colonic lesions should not be reduced before resection because they most likely represent a primary adenocarcinoma. Small bowel intussusception should be reduced only in patients in whom a benign diagnosis has been made preoperatively or in patients in whom resection may result in short gut syndrome [2]. For this reason, colonoscopy is useful method for making a correct diagnosis of colonic intussusception and making a decision about how to cure it.

REFERENCES

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