Case Report

Adult Intussusception Caused by Malignant Lymphoma

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Key Words
Lymphoma;
Intussusception

A 54-year-old man was admitted with irregular abdominal cramps, with pain in his epigastrium. He had no diarrhea, nausea, or vomiting. Panendoscopy revealed reflux esophagitis and a duodenal ulcer. The results of laboratory tests were normal, but a computed tomography scan of his abdomen indicated that he had a large round mass on the right side of his lower abdomen. We performed laparotomy, and we found an ileocecal intussusception with a tumor. The tumor was located at the ileocecal valve and was involved with the cecal wall. The right hemicolon, which contained the tumor, was resected. Histological examination revealed large lymphoma cells that had infiltrated the deep muscular layer. The tumor stained positive for CD-20 but negative for CD-3 and cytokeratin. Based on these data, we diagnosed the uncommonly reported condition of adult intussusception caused by malignant lymphoma.
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Intussusception is common in children but is uncommonly found in adults.[1] This is because it is difficult to diagnose this condition, for which no obvious symptoms are defined. In general, most cases of adult intussusceptions present with nonspecific abdominal pain, nausea, and vomiting. More than 80% cases of adult intussusception are reported to be neoplasms, including lymphoma, lipoma, and adenocarcinoma.[2,3] In this case, the 54-year-old male patient had occasional abdominal cramps only. After a series of examinations, the patient was diagnosed with an uncommon case of adult intussusception caused by malignant lymphoma.

Case report

A 54-year-old man, who was previously well and healthy, was admitted to hospital because of irregular abdominal cramps that had lasted for about 2 months. The pain was located in the epigastrium, and he felt occasional abdominal fullness, but he did not have any predisposing or relieving factors for the pain. He had no diarrhea, nausea, or vomiting. He had a good appetite, and he had not lost weight during the 2 months before presentation.

The patient received a panendoscopy in the gastroenterology department. The examination revealed reflux esophagitis and a duodenal ulcer. He received medical treatment for about 3 weeks, but his symptoms did not resolve. His abdomen was soft and not tender. His bowel sounds were normal, and there was no hepatomegaly, splenomegaly, or any palpable abdominal masses. A stool examination was positive for occult blood.

Laboratory evaluation revealed that he had a normal white blood cell count and a normal hemoglobin level. The levels of his liver enzymes and uric acid

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were normal. The results of urinalysis were negative. Radiographs of the patient's abdomen and chest, taken on admission, appeared normal. A barium enema revealed a coil-spring mucosal appearance in the terminal ileum and ascending colon (Fig. 1). A computed tomography (CT) scan of his abdomen revealed a large round target-shaped mass in the right lower abdomen. The thick outer rim of soft tissue density represented the marked edematous cecal wall. In addition, surrounding fat-planes infiltration was also noted (Fig. 2).

During laparotomy, an ileocecal intussusception strangulated the cecum with a tumor was noted (Fig. 3). There was a brown polypoid tumor (4 × 3.5 × 1.5 cm) located at the ileocecal valve and involved in the cecal wall. The surrounding cecum had a thickened, congested and edematous wall with focal hemorrhage. The right hemicolon, which contained the tumor, was resected, and an end-to-end anastomosis was performed. Histological examination revealed diffuse large B-cell lymphoma with infiltration to the deep muscular layer (Fig. 4). The tumor cells stained positive for CD-20 and negative for CD-3 and cytokeratin. Sections taken from 20 regional lymph nodes showed reactive hyperplasia without tumor involvement.

Discussion

Intussusception is uncommon among adults. Of all intussusception cases, only 5% involve adults.[4] It is difficult to diagnose intussusception in adults because of the non-specific symptoms. Previous articles have also mentioned that adult intussusceptions are uncommonly found and that they are diagnosed occasionally during laparotomy.[5,6]

Previous reports show that 92% of cases of adult intussusception were caused by neoplastic lesion.[3]

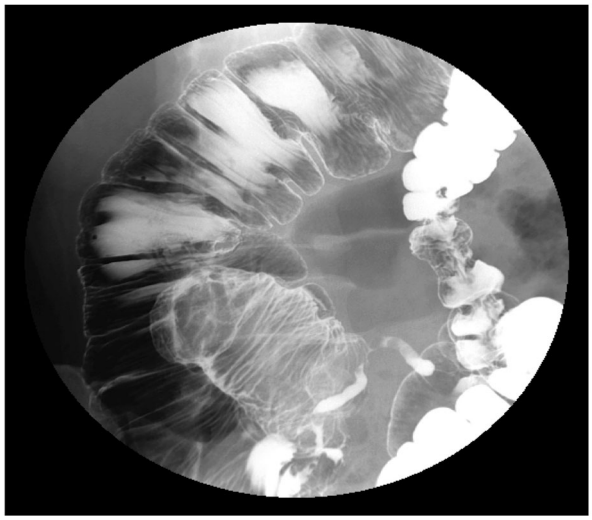

Fig. 1. Barium enema revealed a coil-spring mucosal appearance in the terminal ileum and ascending colon.

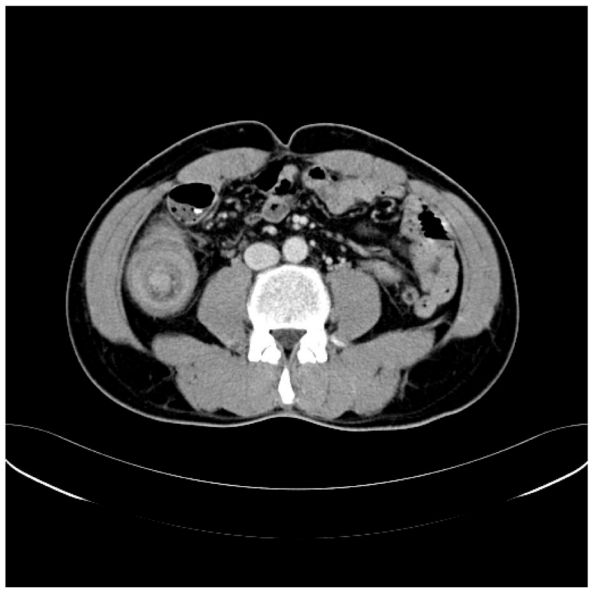

Fig. 2. Abdominal computed tomography scan revealed a large round mass in the right lower abdomen and wall thickening of the ascending colon and cecum with a target-like appearance.

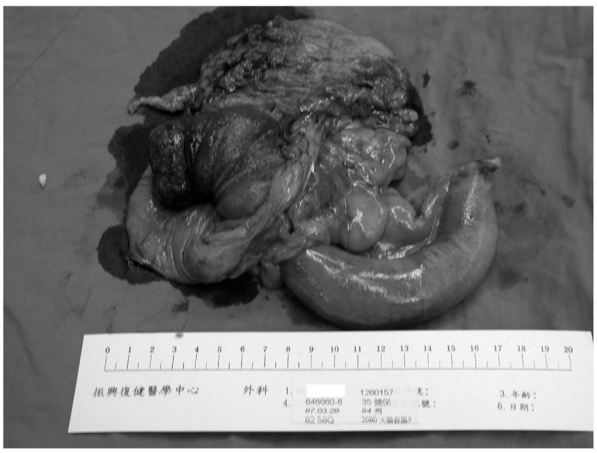

Fig. 3. Resected section of the patient's gastrointestinal tract. The lumen of the colon was opened, and a brown polypoid tumor located at the ileocecal valve with ileocecal intussusception was revealed.

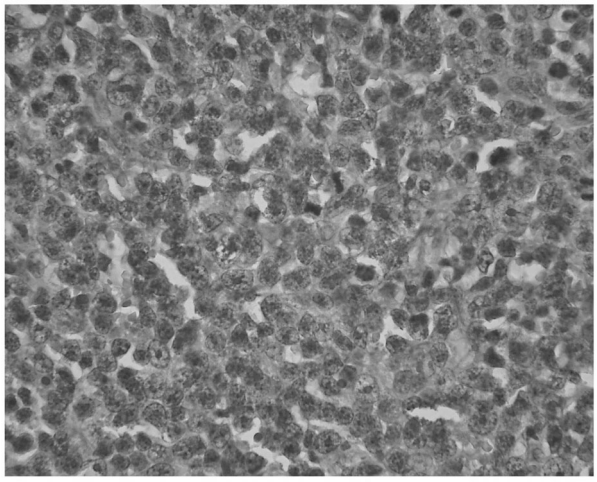

Fig. 4. Microscopic view (400 × magnification) of the tumor showing diffuse large B-cell lymphoma. There was a diffuse pattern of large mitotic lymphoid tumor cells in the deep muscular layer.

These reports also indicated that colonic adenocarcinoma and malignant lymphoma are the two common tumors involved in adult intussusception. Lymphoma is a type of cancer that affects lymph cells and tissues, including white blood cells, lymph nodes, and the spleen. It may arise anywhere outside of the lymph nodes and may develop in gastrointestinal tract, including the stomach, ileum, and colon.

It is difficult to diagnose adult intussusception before operation. Much literature and many case studies report that patients with intussusception suffer abdominal pain, diarrhea, and vomiting. In the present case, the patient had irregular abdominal cramps and no other symptoms. Because the pain was located at the epigastrium, his condition would usually be diagnosed as a duodenal ulcer or gastric ulcer, and the medical treatment would have been chosen. In this case, the definite diagnosis of adult intussusception caused by malignant lymphoma was made by a combination of CT scanning, which is the most accurate diagnostic tool for intussusception, and histological examination of a tumor biopsy. We found that the patient's malignant lymphoma was the polypoid type previously classified by Wood.[7] We also noted that the lymphoma cells infiltrated into the muscular layer; previous data showed that this may form the leading point of the intussusception.[8]

Our patient did not receive a colonoscopy. If the patient had been diagnosed with malignant lymphoma by colonoscopic biopsy, surgery would have still been recommended because resection of the segment of the bowel with lymphoma may relieve obstruction, eliminate the risk of perforation, and reduce the likelihood of hemorrhage. Because the entire tumor was surgically removed, the patient received a brief course of chemotherapy, usually three cycles of CHOP (cyclophosphamide, doxorubicin, vincristine, and prednisone) and rituximab. If residual disease is present, a full course of six to eight cycles of chemotherapy should be used. A recent publication has confirmed the efficacy of this approach, with over 90% of patients surviving 2 years after treatment.[9]

Here we have reported a case of adult intussusception caused by malignant lymphoma. This is an uncommon case and the condition is difficult to diagnose because of the non-specific symptoms. Image and histological examinations are helpful in making an early definite diagnosis.

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病例報告

迴盲瓣惡性淋巴瘤引起的腸套疊

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一位 54 歲的男性主訴有不規則的腹部痙攣，而且發現疼痛處位於上腹部。病人沒有腹瀉，噁心或者嘔吐的現象。上消化道內視鏡檢查顯示有回流性食道炎和十二指腸潰瘍。所有檢查評估顯示正常，但是腹部電腦斷層資料指出在右下腹有明顯的大團塊。在剖腹手術後我們發現一個具有腫瘤的回盲腸套疊。腫瘤位於回盲瓣並且包含了腸壁，因此右半結腸被切除以便分析。組織學檢查顯示大淋巴腺癌細胞滲入肌肉深層並且確認爲 CD-20 表現陽性，CD-3 和細胞角蛋白表現陰性。綜合以上的資料顯示，我們發現一個少見的因惡性淋巴腺癌所引起的成人腸套疊案例。

關鍵詞 淋巴瘤、腸套疊。