

Amebiasis Masquerading Colonic Lymphoma in an Intestinal Intussusception Patient

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Abstract

Intussusception which presents with palpable mass, abdominal pain and bloody diarrhea is a rare condition in adulthood. Most of adult intussusception cases are secondary to benign or malign lesions. *Entamoeba histolytica* is a common pathogen leading to chronic bloody diarrhea in developing countries. We report a 22-year-old patient presenting with abdominal pain and chronic bloody mucoid diarrhea, which intestinal amebiasis delayed diagnosis of intussusception secondary to colonic diffuse large B-cell lymphoma.

Keywords: Amebiasis; Colonic lymphoma; Intussusception

Introduction

Intussusception is one of the most common causes of acute abdomen in childhood. However, adult invagination is relatively rare and constitutes 5% of all intussusception cases [1]. Intussusception presents as classic clinical triad: palpable mass, abdominal pain and bloody mucoid stools. Although most of childhood intussusceptions are idiopathic, 90% of adult cases are secondary to benign or malign lesions [2, 3].

Adult intussusception presents with nonspecific abdominal symptoms. It is important to diagnose and to differentiate from other inflammatory or mechanical obstructive disorders earlier.

Entamoeba histolytica (*E. histolytica*) infection becomes manifest as asymptomatic colonization, diarrhea, acute dysentery, fulminant colitis with perforation, toxic megacolon and ameboma formation in intestine. Intestinal amebiasis confused with many other benign or malignant diseases. We report here a patient with abdominal pain and bloody diarrhea which amebiasis masqueraded colonic diffuse large B-cell lymphoma presenting with ileocolonic invagination.

Case Report

A 22-year-old male presented with 6-week history of right lower side abdominal pain which had worsened over time and intermittent diarrhea. Patient had empirically been treated with PO ciprofloxacin. Recently, loss of appetite and recurrent vomiting were also added to his complaints and diarrhea had become bloody and mucoid. He denied any history of fever, noticeable weight loss or night sweats. His medical history had not any distinctive feature. On examination, the abdomen was soft, tender to palpation over the right lower quadrant with no rebound or guarding. There was no obvious

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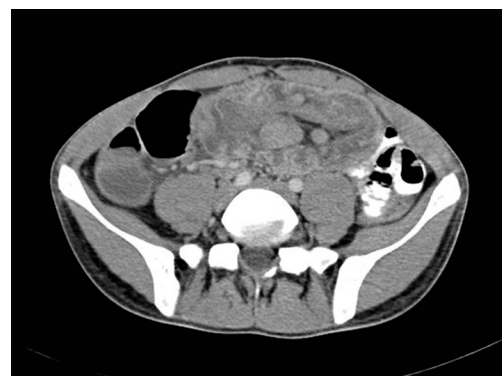


Figure 1. Computed tomography image of intussusception at midline with multiple lymphadenopathies.

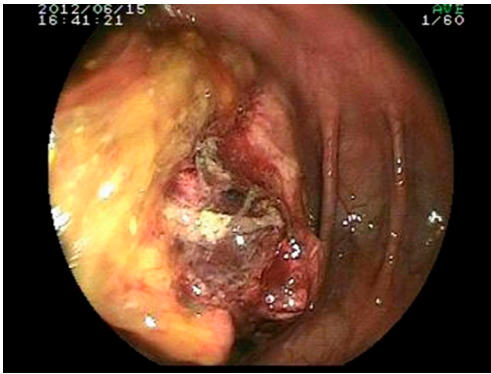


Figure 2. Mass lesion at the neighborhood of cecum on colonoscopic examination.

mass lesion. Laboratory data revealed normal hemoglobin (14 g/dL), white cell count (9,810,000/ μ L) and platelet count (351,000,000/ μ L). Erythrocyte sedimentation rate was 10 mm/h and C-reactive protein was 0.54 mg/dL. Urea, electrolytes, amylase and liver function tests were also normal, but lactate dehydrogenase was slightly raised (274 U/L (125 - 220)). Fecal leukocyte and erythrocyte was detected in stool examination. Stool antigen for *E. histolytica* was also positive. Intravenous fluids and metronidazole were started immediately and bloody diarrhea disappeared after treatment. However, colicky abdominal pain persisted and abdominal computed tomography with oral and intravenous contrast was performed. A 13-cm lesion with invaginated intestinal loops at the pelvic midline was detected (Fig. 1). There were

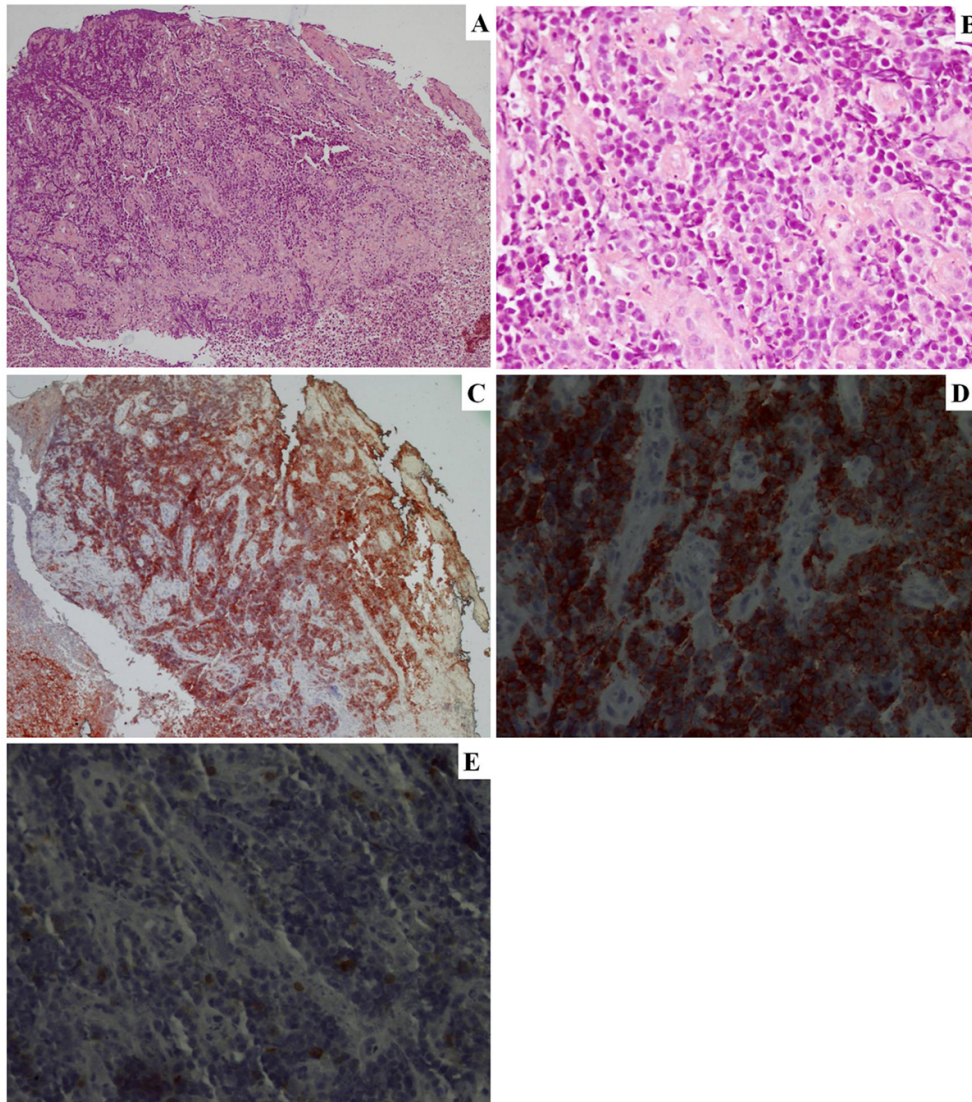


Figure 3. Histological examination of endoscopic biopsy specimens showing atypical lymphoid cell infiltration at submucosa and lamina propria. (A) Hematoxylin-eosin staining ($\times 100$); (B) Hematoxylin-eosin staining ($\times 400$); (C) CD20(+) ($\times 100$); (D) CD20(+) ($\times 400$); (E) CD3(-) ($\times 400$).

also multiple lymphadenopathies adjacent to the mass lesion. Colonoscopic examination was consistent with an obstructive, ulcerated and necrotic mass lesion at the neighborhood of cecum (Fig. 2). Biopsies obtained during the colonoscopy were consistent with diffuse large B-cell lymphoma (Fig. 3). The patient underwent right hemicolectomy with primary anastomosis, and then, was treated with systemic chemotherapy.

Discussion

Intussusception is the telescopic invagination of intestinal segment into the adjacent distal part of small intestine or large intestine. Adult intussusception cause 1-5% of all adult intestinal obstructions [4]. Most of adult intussusception cases (approximately 90%) are secondary to other benign or malignant disorders with a lead point lesion. The etiologic factor might be a benign lesion like, fibroid polyp, lipoma, Meckel's diverticulum, Crohn's disease and Yersinia enterocolitis or a malignant tumor such as a primary carcinoma, metastatic carcinoma such as melanoma, GISTs, lymphoma, or carcinoid tumor [3, 5, 6]. In contrast to pediatric intussusception cases most of which are primary and benign, most of adult patients have structural lesions, especially malignancy in colonic cases [7]. Patients present with nonspecific symptoms such as nausea, vomiting, gastrointestinal bleeding, change in bowel habits, constipation or abdominal distension [8]. Although majority of adult cases have a chronic intermittent course, some patients present with acute or subacute symptoms. Classical clinical triad can be detected in about 10-20% of adult cases [7, 9]. On the other hand, although CT can detect a lead point easily on CT examination, determination of intussusception cause is not always possible with CT imaging, except lipoma [10]. Vague presentation of intussusception in adulthood causes delaying of the diagnosis.

Primary colonic lymphomas account for only 0.2-0.6% of colon cancers and 10-20% of all gastrointestinal lymphomas [11]. Colonic lymphomas are found more frequently in males in their sixth and seventh decade of life. Diffuse large B-cell lymphoma and mucosa-associated lymphoid tissue lymphoma are the most common histological subtypes. The most frequently involved colonic site at diagnosis is cecum followed by the sigmoid and the rectum. Clinical presentation of colonic lymphoma is quite vague and variable. Intussusception is very rarely seen in intestinal lymphoma. The most common type of lymphoma causing intussusception is diffuse B-cell lymphoma [12].

In our patient, diffuse B-cell lymphoma causing ileocolonic intussusception is the case. The patient attended to our clinic with nonspecific abdominal pain and intermittent bloody diarrhea. There was no fever, night sweat or weight loss and laboratory finding was not remarkable except LDH. Moreover, amebiasis complicated the case and led to delay in

diagnosis. The lymphoma was not obviously demonstrated on CT imaging. The patient was diagnosed accurately with colonoscopic examination and pathological findings after the treatment of *E. histolytica* infection with metronidazole.

Ileocolonic or colocolonic intussusception is extremely rare presentation of intestinal amebiasis [13]. Some infections cause intestinal intussusception. It is suggested that infection-related mesenteric lymph node involvement or mass formation may constitute lead point for intussusception development. On the other hand, intestinal amebiasis may present with bloody diarrhea, abdominal pain or intestinal mass lesion (ameboma). In the presence of stool *E. histolytica* antigen positivity, bloody diarrhea and abdominal pain symptoms are suggestive for invasive amebic colitis. Persistence of abdominal pain after resolving of bloody diarrhea gave an impression about other presumptive diagnosis.

Consequently, intussusception has a course with indistinct symptoms. It is mandatory to define the cause, especially in adult patients. Intestinal amebiasis may cause similar symptoms with intussusception. However, clinical course of intestinal amebiasis resembles intussusception symptoms and this tropical infection may masquerade colonic lymphoma.

Conflict of Interest

The authors declare that there is no conflict of interests regarding the publication of this paper.

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