

Amoebic Enterocolitis Mimicking Crohn's Disease - Case Report

Jan M. Vrolijk*

Department of Hepatology, Gastroenterology and Clinical Pathology, Rijnstate Hospital Arnhem, The Netherlands

*Corresponding author: Jan M. Vrolijk, Department of Hepatology, Gastroenterology and Clinical Pathology, Rijnstate Hospital Arnhem, The Netherlands, Tel: +3188880880; E-mail: jvrolijk@rijnstate.nl

Rec date: Oct 12, 2015; Acc date: Apr 27, 2016; Pub date: Apr 29, 2016

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Abstract

To demonstrate the pitfalls in the diagnosis of intestinal amoebiasis we describe a case of amoebic enterocolitis with an atypical clinical presentation. In a patient with repeated rectal blood loss and no diarrhea, colonoscopy showed discontinuous ulcerative enterocolitis of the ileocecal region. Because of a high suspicion of Crohn's disease a recipe of Entocort 9mg daily was handed out to him. Histological examination of the biopsies revealed the causative trophozoites of *Entamoeba histolytica*, and the patient was then successfully treated with Metronidazole. Presumptive diagnosis based on a lesion's appearance could be important for initial therapy but only objective data enable definitive diagnosis and specific therapy.

Keywords: Crohn's disease; Amoebic enterocolitis

Introduction

Case Report

A 53 year-old man was referred by his general practitioner to our endoscopy unit for a colonoscopy because of recent rectal blood loss. Besides that, his bowel habits were unchanged. Colonoscopy showed multiple, discontinuous aphthous ulcers with overlying exudate located in the otherwise normal terminal ileum (Figure 1a) and generalized ulceration, atrophy and edema of the ileocecal valve (Figure 1b). In the ascending, transverse, descending en sigmoid colon no abnormalities were seen. Multiple biopsy samples were taken and because of the suspicion of Crohn's disease an appointment for the outpatient clinic was made. A recipe for Entocort 9 mg daily was written and handed to him.

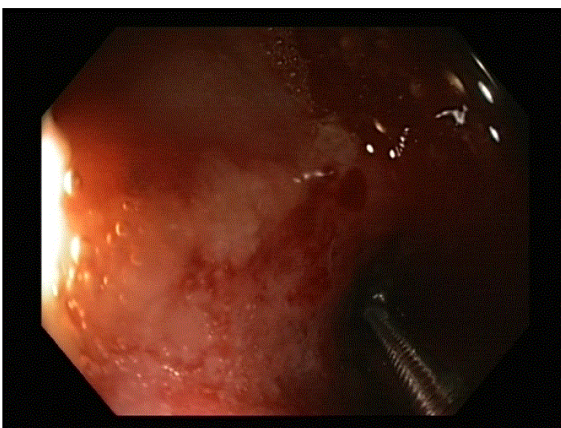


Figure 1a: Edematous, granular mucosa with ulceration and loss of normal vascular pattern in the terminal ileum.

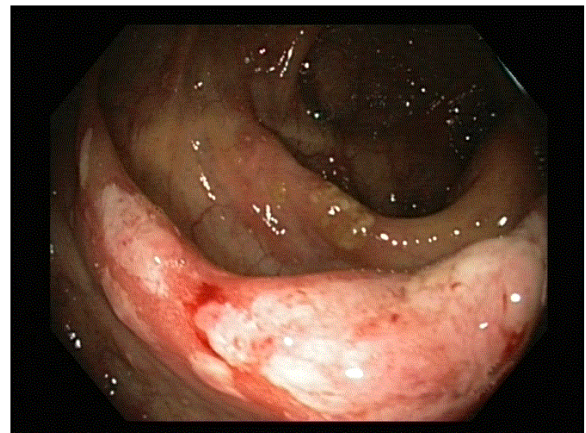


Figure 1b: Discontinuous ulceration in coecum.

On his visit at the outpatient clinic one week later he presented without any significant problem. He did not have abdominal pain, diarrhoea, weight loss, anorexia or fever and his family history was unremarkable. Fortunately he had lost the recipe and therefore had not been able to start the prescribed medication yet. In the last two years he had been traveling to Thailand, Singapore and Sumatra where he had met his current girl friend who accompanied him on his visit. Clinical examination was besides generalized adipositas (length 187 cm, weight 105 kg), unremarkable. Laboratory investigations were normal.

Histological examination of the biopsies taken at colonoscopy demonstrated trophozoites of *Entamoeba histolytica* (Figure 2). The patient was treated with antibiotics including metronidazole 500 mg t.i.d. for 10 days, and recovered without further difficulty. An ultrasound examination of the liver showed no cysts or other abnormalities.

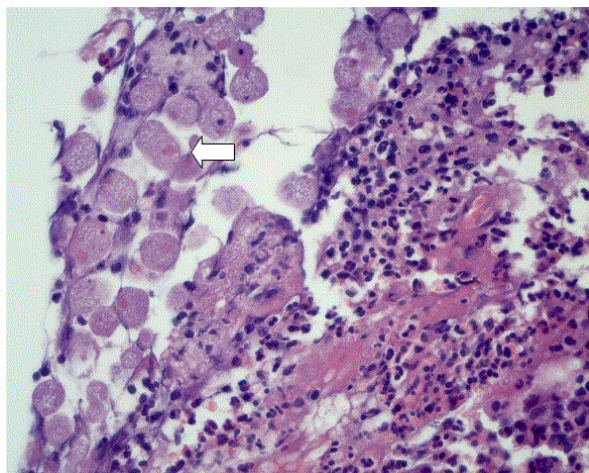


Figure 2: H&E orig. mag. X400: necrotic debris overlying an active ulcer. Arrow: amoebic parasite with ingested erythrocyte.

Two months later he visited the outpatient clinic again because of a change in bowel habits and the suspicion of blood in his feces. A second colonoscopy was made to exclude recurrence of disease. No abnormalities were seen and the taken biopsies proved without any abnormalities. The diagnosis “post infectious irritable bowel syndrome” was discussed on the outpatient clinic.

Discussion

Amoebiasis is an ubiquitous parasitic infection, with a prevalence as high as 50% in the Indian subcontinent, Southern and Western Africa and South America [1]. The prevalence in the western countries is not known, still amoebiasis is encountered anywhere from USA to Northern Europe. Amoebic infections are acquired via the oral-fecal, oral-anal, and oral-genital routes.

Intestinal amoebiasis is the most common form of amoebic infection. Most infected individuals carry the trophozoites asymptotically within the lumen of the ascending colon and shed the cysts in their stools. Symptomatic patients typically present with a several – week history of cramping abdominal pain, weight loss, and watery or bloody diarrhea. The insidious onset with fever and bloody stools absent in most cases, make the diagnosis difficult. Complications of intestinal amoebiasis include massive hemorrhage, peritonitis secondary to perforation, paralytic ileus, intestinal fistulae and abscesses, stricture and intussusception. Ameboma's are localized chronic, granulomatous masses containing multiple small abscesses commonly occurring in the wall of the caecum of ascending colon and can be mistaken for carcinoma. Fulminant colitis is an unusual complication of amoebic infection and carries a mortality of 50%.

In developing countries the diagnosis is most commonly made by identifying cysts or motile trophozoites on a saline wet mount of stool specimen. The drawbacks of this method include its low sensitivity and false positive results owing to the presence of noninvasive *Entamoeba* species such as *E. dispar* and *E. moshkovskii* infection. The diagnosis should be based on the detection in stool of *E. histolytica* – specific

antigen or DNA and by the presence of antiamebic antibodies in the serum. Both the serum indirect hemagglutination antibody (IHA) and the enzyme-linked immunosorbent assay (ELISA) are highly sensitive (90-100%) and turn positive within 7-10 days of infection. Unfortunately the serologic tests are unable to distinguish between active or prior invasive infection since antibodies can remain detectable for as long as 20 years [1,2].

The diagnosis can also be made by examination of colonic mucosal biopsy specimens obtained endoscopically. Histopathological findings associated with amoebic colitis include diffuse, nonspecific mucosal thickening, focal ulceration with or without amoebae. The amoeba parasites are lying on top of the ulcers, sometimes extending in the submucosa. The ingested erythrocytes help to distinguish true parasites from swollen and degenerated epithelial cells.

Nitroimidazoles, particularly metronidazole is the mainstay of the therapy for invasive amoebiasis. In the rare case of fulminant amoebic colitis it is prudent to add broad-spectrum antibiotics to treat intestinal bacteria that may spill into the peritoneum; surgical intervention is required for acute abdomen, gastrointestinal bleeding, or toxic megacolon. In 40-60% of the patients receiving nitroimidazole parasites can persist in the intestine. Therefore, nitroimidazole treatment should be followed by paromomycin or the second-line agent diloxanide furoate to cure luminal infection.

Conclusion

In previous reports of unsuspected amoebic colitis presenting as inflammatory bowel disease, misdiagnosis, delay in antibiotic treatment and institution of immunosuppressive therapy have resulted in serious morbidity and mortality [2-6]. Even if in our patient no serious complications occurred, it is imperative to exclude amoebic colitis prior to undertaking steroid therapy, especially in patients with a history of travel to or residence in areas with endemic *E. histolytica*.

In conclusion, amoebiasis is no longer an exotic disease. Think of it especially in world travelers and patients presenting as inflammatory bowel disease with no response to immunosuppressive therapy [7].

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