Amebiasis Mimics Malignancy in the Transverse Colon and Transpires in Liver Abscess

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ABSTRACT

Amebiasis is the problem of developing countries with inadequate sanitation. It may affect visitors from affluent nations if they stick around long enough. Presentation can be intestinal or extraintestinal. Amebiasis may present as pain abdomen, fever and weight loss without increased bowel movements. Ameboma, a rare complication of intestinal amebiasis may mimic malignancy or inflammatory bowel disease. We present a case of ameboma of transverse colon, an unusual site, which may increase suspicion of malignancy. Our patient developed liver abscess during illness, giving clues to the diagnosis. Metronidazole or tinidazole is the drug of choices; liver abscess may require drainage if it is large and where is impending rupture, it is located in the left lobe or there is delayed response to medical management. It is prudent to check for complete resolution of ameboma, not to leave behind a malignant lesion.

Keywords: Ameboma, transverse colon, mimics, malignancy, hepatic, abscess

Amebiasis is caused by *Entamoeba histolytica*, a protozoan. Clinical manifestation can be either intestinal or extraintestinal. Over 50 million people are affected annually with a mortality of 1,00,000 people a year.[1]

Hepatic abscess is the most common extraintestinal problem, other organs that are affected less frequently are the lungs, heart and the brain. It is a disease of economically disadvantaged communities; in developed countries, it is commonly seen in immigrants or travelers.

Very rarely colonic infection may localize to form a mass of granulation tissue, an ameboma which may mimic colonic carcinoma in clinical presentation. Metronidazole or tinidazole is the drug of choice for intestinal and extraintestinal amebiasis, paromomycin or diloxanide furoate need to be used in patients carrying intestinal cysts.

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CASE REPORT

A 73-year gentleman was admitted to the hospital with symptoms of abdominal pain of 20 days duration. He was a diabetic on glimepiride 2 mg and metformin long-acting 500 mg daily.

His blood sugar was not under control and glycosylated hemoglobin (HbA1c) at the time of admission was 9%. He is a frequent traveler and preferred to eat vegetable salads as he was a pure vegan. The pain was in periumbilical region and in right iliac fossa. Pain was not related food or radiating to other areas.

The patient was not nauseated and there were no loose motions or vomitings. He lost 6 kg weight in spite of normal appetite. There was no history of mucus or blood in the feces. The patient began to have fever 5 days prior to hospitalization, which was treated by family physician with intravenous ceftriaxone without much response. He underwent ultrasound examination of the abdomen, which revealed bowel wall thickening of ileocecal junction, which was suspicious of tuberculosis or inflammatory bowel disease.

Contrast-enhanced computed tomography (CECT) of the abdomen was performed for further evaluation of the intestinal lesions. It was found on computed tomography (CT) to be a focal eccentric mural thickening of cecum and transverse colon (Fig. 1). He underwent colonoscopy, the gastroenterologist felt that patient might be having tuberculosis or malignancy in

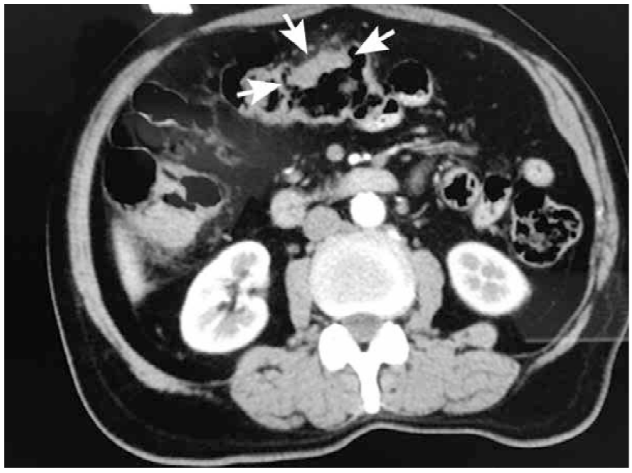

Figure 1. CECT of the abdomen, showing focal eccentric mural thickening of transverse colon.

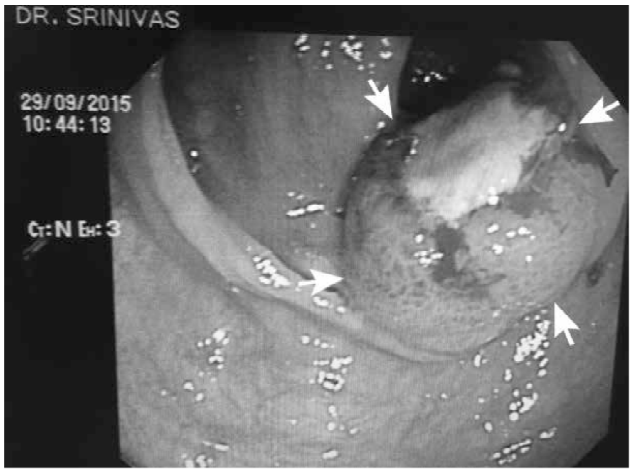

Figure 2. Ulcerated nodular lesions in the transverse colon with skipped lesions by colonoscopic examination.

the view of ulcerated nodular lesions in ileocecal valve and transverse colon with skipped lesions (Fig. 2).

Multiple biopsies were taken and sent for histopathological examination. At that stage he was referred to our hospital. Histopathologist reported it to be focal active colitis with super added ulcers and acute inflammation. On CD3 IHC and CD20 IHC, they found it positive in a few lymphocytes. This indicated that it may be inflammatory bowel disease. As the patient was persistently pyrexial, we did CT chest to find out any evidence of pulmonary tuberculosis or mediastinal lymphadenopathy. To our surprise, we found that he had a 55 × 50 × 39 abscess in the left lobe of liver (Fig. 3).

Under CT guidance 100 mL anchovy sauce-colored pus was aspirated and on saline mounting multiple

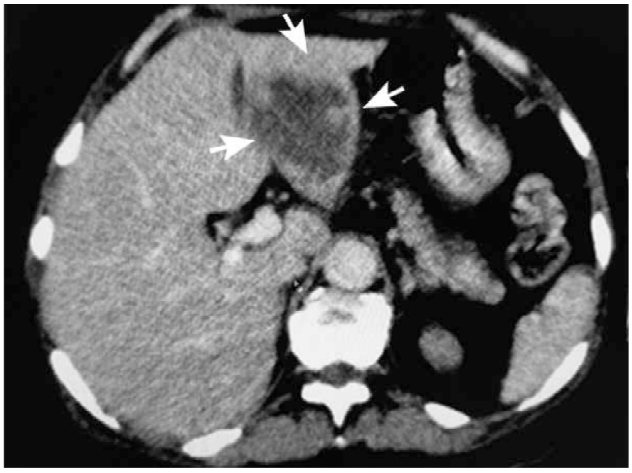

Figure 3. CT scan of chest demonstrated 55 × 50 × 39 abscess in the left lobe of liver.

ameba were demonstrated in the aspirate. He was given tinidazole 2 g a day intravenously for 5 days and orally for another 10 days. His fever subsided in 3 days and intestinal lesions resolved in a month's time on colonoscopy and CT scan.

DISCUSSION

Intestinal and extraintestinal complications of amebiasis are more common in adult males and travelers within the community. Amebic hepatic abscess is more common in a diabetic.[2] Ameba establishes hepatic infection through the portal circulation. Our patient was a poorly controlled diabetic and a frequent traveler too, exposing himself to amebic infection and its complications. Factors that predispose one to severe infections include genetic susceptibility, age, immune status, pregnancy, corticosteroid treatment, malignancy, malnutrition and alcoholism. Amebiasis commonly presents with dysentery, but may only present with abdominal pain and weight loss as in our patient.

Rarely, colonic infection may localize to form a mass of granulation tissue, an ameboma mimicking a colonic malignancy.[3] It has been reported that sometimes, it may present as acute intestinal obstruction or intussusception. Our patient presented with pain abdomen, fever and weight loss. His ultrasound and CT scan abdomen displayed thickenings of cecum and transverse colon. On colonoscopy, nodular ulcerated skip lesions were found which were suspected to be malignant. Histopathological examination of a biopsy specimen taken at colonoscopy suggested that it might be inflammatory bowel disease. At times, it may be difficult to differentiate amebic colitis from

inflammatory bowel disease clinically, endoscopically and histopathologically.[4] In such situations, administration of steroids can be detrimental if the patient has an amebiasis instead of inflammatory bowel disease. We should be extravigilant when managing ulcerative intestinal lesions in endemic areas of amebiasis. As we were searching for any other cause of fever in this individual, we found an abscess in the liver which was not seen in the previous ultrasound and abdominal CT scan.

Anchovy sauce-colored pus was aspirated pointing towards amebic abscess rather than pyemic abscess. We could also demonstrate amebic trophozoites confirming the diagnosis which is often difficult to do. Colonic mass in the form of ameboma and liver abscess have been reported in the literature, confounding with colonic malignancy and hepatic metastasis leading to surgical procedures like colonic resection.[5] But there are not many reports of transverse colonic ameboma with liver abscess.

Liver abscess may rupture into pleura, pericardium, lungs or peritoneum. Unless large in size or located in the left lobe of liver, it can an be managed with medical treatment without recourse to aspiration. In our patient, we demonstrated clearance of pathological lesions endoscopically. Complete resolution of ameboma should be observed by colonoscopic examination, otherwise we may miss a concomitant malignant lesions.

CONCLUSIONS

Ameboma, a rare intestinal manifestation of amebic infection may present with pain abdomen alone without a history of dysentery and mimic malignancy or inflammatory bowel disease. Vigilance should be maintained as a liver abscess may develop during the course of illness rather at inception.

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REFERENCES

1. Bercu TE, Petri WA, Behm JW. Amebic colitis: new insights into pathogenesis and treatment. Curr Gastroenterol Rep. 2007;9(5):429-33.
2. Jha AK, Das A, Chowdhury F, Biswas MR, Prasad SK, Chattopadhyay S. Clinicopathological study and management of liver abscess in a tertiary care center. J Nat Sci Biol Med. 2015;6(1):71-5.
3. Misra SP, Misra V, Dwivedi M. Ileocecal masses in patients with amebic liver abscess: etiology and management. World J Gastroenterol. 2006;12(12):1933-6.
4. Tucker PC, Webster PD, Kilpatrick ZM. Amebic colitis mistaken for inflammatory bowel disease. Arch Intern Med. 1975;135(5):681-5.
5. Moorchung N, Singh V, Srinivas V, Jaiswal SS, Singh G. Caecal amebic colitis mimicking obstructing right sided colonic carcinoma with liver metastases: a rare case. J Cancer Res Ther. 2014;10(2):440-2.