Amoeboma—Lest We Forget!!!

S. S. Jaiswal¹ · R. Mehra¹ · M. R. Pattnaik¹

Received: 20 February 2015 / Accepted: 2 April 2015 / Published online: 14 April 2015
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Abstract Amoebiasis is an infection with the parasitic intestinal protozoan *Entamoeba histolytica* (*E. histolytica*). Most infections are usually asymptomatic, but the disease spectrum can range from dysentery to extraintestinal infections, including liver abscesses. The management of a 68-year-old male with amoeboma, a rare manifestation of intestinal amoebiasis, is described along with a review of literature.

Keywords *Entamoeba histolytica* · Amoebic colitis · Amoeboma · Intestinal amoebiasis

Introduction

The term amoeboma was introduced by Ochner and DeBakey in 1939 [1], and it refers to a rare complication of amoebic colitis which may mimic a colonic malignancy.

Case Report

A 68-year-old male presented with insidious onset, progressively increasing abdominal pain and distension of 5 days duration. The pain was of moderate severity, continuous in nature, and maximally felt in the right lower quadrant of the abdomen. There was associated obstipation and hematochezia, for the past 3 days, but no vomiting, fever, or diarrhea. On general examination, he had tachycardia, mild

pallor, icterus, and bilateral pitting pedal edema. Examination of the abdomen revealed generalized distension with the presence of a tender lump, measuring 12×10 cm, in the right lumbar and iliac regions. There was no organomegaly and no evidence of ascites. Digital rectal examination revealed the presence of formed fecal matter mixed with blood on the finger stall. The remaining clinical examination was unremarkable. Investigations showed anemia (Hb—9.9 gm%), leucocytosis (TLC—11,100/mm³ with 91 % neutrophils), coagulopathy (platelet count—93,000/mm³, INR—1.86), deranged liver function (serum bilirubin—3.3 mg%, total protein—5.3 gm%) and deranged kidney function (blood urea—94 mg% and serum creatinine—1.6 mg%). Plain radiographs of the abdomen showed multiple dilated small-bowel loops with air fluid levels. NCCT abdomen revealed a mass lesion involving the cecum and the proximal ascending colon, with obliteration of bowel lumen and fat stranding around the

✉ S. S. Jaiswal
adiaru@rediffmail.com

¹ Department of Surgery, Armed Forces Medical College (AFMC), Pune 411040, India

Fig. 1 NCCT of the abdomen showing a lesion in the colon

lesion (Fig. 1). In addition, there was hepatomegaly with the presence of multiple hypodense lesions in segments VI and VII. Ultrasonography of the abdomen was corroborative of the above findings and also demonstrated the presence of minimal ascites.

The patient was taken up for emergency surgery, and the abdomen was entered through a midline laparotomy. A mass lesion involving the cecum and the ascending colon, with mesenteric lymphadenopathy and adherent omentum, was found with distension of the ileum. The liver was normal on gross appearance, and there was minimal serosanguinous ascites. In view of the foregoing, an intraoperative diagnosis of obstructing colonic malignancy was made, and a right hemicolectomy (Fig. 2) with end ileostomy and mucus fistula was performed. The initial postoperative period was stormy, and the patient required ventilatory support, antibiotics, and multiple transfusions. The subsequent recovery was smooth, except for the development of surgical site infection which responded to antibiotics and dressings. Histopathological examination of the specimen was suggestive of amoeboma with extensive amoebic colitis and no evidence of malignancy. He recovered well, and bowel continuity was restored after 6 months.

The patient has now completed 2 years of follow-up and is asymptomatic.

Discussion

Amoebiasis is largely a disease of tropical and developing countries, and *E. histolytica* is endemic in India, Africa, and parts of Central and South America, where almost half the population is infected [2, 3]. The infection is acquired by ingestion of cysts contained in fecally contaminated food or water or, more rarely, through oral-anal sexual contact.

Fig. 2 Cut-open operative specimen showing a lesion in the cecum and the ascending colon

Trophozoites can live within the large-bowel lumen without causing disease or can invade the intestinal mucosa, causing amoebic colitis [4]. Rarely, patients with longstanding infection develop tumorous, exophytic, cicatricial, and inflammatory masses known as “amoebomas,” probably because the necrotic tissue is replaced by an extensive inflammatory reaction and pseudotumor formation, as a result of secondary bacterial infection [5]. Amoebomas are found, in decreasing order of frequency, in the cecum, ascending colon, rectosigmoid, transverse colon, and descending colon [6]. They are usually solitary with variable size and may measure up to 15 cm in diameter. Men, between 20 and 60 years of age, are most commonly affected [7].

The exact incidence of amoeboma is not known, and most of the literature available on the subject comprises of isolated case reports. It should be suspected when a patient from an endemic area with generalized ill health and pyrexia has a right iliac fossa mass and a history of bloodstained mucoid diarrhea [2]. In our patient, the presentation was atypical, with features of intestinal obstruction, lower gastrointestinal bleeding, and sepsis but without any history of fever or dysentery. The findings on imaging, mentioned earlier, were strongly suggestive of a metastatic colonic malignancy. Similar cases have been reported earlier [5, 8] thereby reiterating that a colonic amoeboma accompanied by amoebic liver abscess may be misdiagnosed as a metastatic colonic malignancy. A high index of suspicion is thus essential when dealing with colonic masses and liver lesions, especially in the tropics.

The treatment of amoeboma, if the diagnosis is confirmed by imaging and colonoscopic biopsy, may be conservative. Treatment options include 5–10 days of oral metronidazole followed by diloxanide furoate or paromomycin to eradicate carrier state. If the lesion has not regressed after full medical treatment, colonic resection should be undertaken, particularly if malignancy cannot be excluded [2].

To conclude, colonic amoeboma is a rare complication of invasive amoebiasis, and since most surgeons are likely to encounter only a few cases, awareness about this entity, which is revealed postoperatively as a pleasant histological surprise, is desirable.

Conflict of Interest All authors listed above declare that they do not have any conflict of interest.

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