

Spontaneous Hepatogastric Fistula: A Rare Complication of Amebic Liver Abscess

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ABSTRACT

An amebic liver abscess (ALA) is a common extraintestinal manifestation of invasive amebiasis. Rupture into the thoracic or peritoneal cavity is a common complication of liver abscess especially, from left lobe abscess. Rupture into the stomach leading to hepatogastric fistula is an extremely rare complication more so spontaneous rupture after a decrease in size of the abscess on treatment. We report a patient with ALA who developed spontaneous hepatogastric fistula on day nine of treatment and was managed successfully with conservative management with the healing of fistula and resolution of the abscess.

Keywords: Amebic liver abscess, Hematochezia, Hepatogastric fistula, Upper gastrointestinal endoscopy.

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INTRODUCTION

An amebic liver abscess (ALA) is a common extraintestinal manifestation of invasive amebiasis and is common in tropical countries. A majority of abscesses respond to medical management with complete resolution.¹ Large abscesses especially in the left lobe of the liver may require aspiration or drainage due to fear of rupture into the pericardium or the pleura. Rupture into the thoracic or peritoneal cavity is a common complication of ALA which is seen in about 22% cases of liver abscess.² Rupture into the stomach leading to hepatogastric fistula is extremely rare. Most of the rupture leading to hepatogastric fistula is either after a drainage procedure or at the beginning of the treatment because of the large size. We report a patient of ALA who developed hepatogastric fistula spontaneously while showing significant improvement on treatment and was managed successfully with conservative management with the healing of fistula and resolution of the abscess.

CASE HISTORY

A sixty-year-old non-alcoholic male, who was a known type II diabetic for five years and well-controlled on oral hypoglycemic drugs, presented with high-grade fever for seven days and right upper quadrant (RUQ) pain for five days. On clinical examination, he was febrile, pale, and had tachycardia with mild, tender hepatomegaly. His hemogram revealed severe anemia and leukocytosis (Hb: 6.9 g/dL, TLC: 27,700, P: 85%, L: 11%, PLT: 5.7 lakhs). His serum creatinine was 3.21 mg/dL suggestive of prerenal acute kidney injury (AKI). His bilirubin was normal with mildly raised transaminases (SGOT-64, SGPT-58). Sonography of the abdomen revealed liquefied left lobe liver abscess in segment two and three measuring 10.2 × 7.6 cm (approximately 430 ml). His amebic serology by indirect hemagglutination test was strongly positive. He was started on fluid bolus along with intravenous metronidazole and supportive treatment. His AKI improved completely. He became afebrile in 72 hours with a significant decrease in RUQ pain and a decrease in his leukocyte count from 27,000 to 14,300 cells per cubic ml of blood. A follow-up ultrasound examination showed a decrease in the size of the abscess (8.4 × 5.8 cm) with an approximate volume of 360 ml. Because of the significant clinical improvement with a

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significant decrease in the volume of the abscess, it was concluded that there is no indication for percutaneous drainage at this junction and we decided to continue with the conservative management. On day nine, the patient developed sudden onset hematochezia with a drop in the hemoglobin. Emergency upper gastrointestinal (GI) endoscopy revealed thickened gastric folds in the fundus with seeping of anchovy sauce-like fluid suggestive of fistulous opening (Fig. 1). Computed tomography (CT) of the abdomen revealed left lobe liver abscess with fistulous communication with the stomach (Fig. 2). He was continued with intravenous (IV) metronidazole. At this stage, IV antibiotics were added, and blood transfusion was given. His serial ultrasound examination showed resolution of the abscess and an upper GI endoscopy after four weeks showed the closing of the fistula tract.

DISCUSSION

An ALA is the most common extraintestinal manifestation of invasive amebiasis with a prevalence of 3 to 9%.¹ It is more commonly seen in people with diabetes and alcoholic males of low socioeconomic status.¹ Amebic liver abscess classically involves the right lobe of the liver; however, left lobe abscess is seen in 35% of cases. Left lobe abscesses are more prone to rupture. Intrapleural rupture (42.5%), intrapulmonary (20.2%), and intraperitoneal rupture (15.6%) are significant rupture sites.² Hepatogastric fistula is a rare

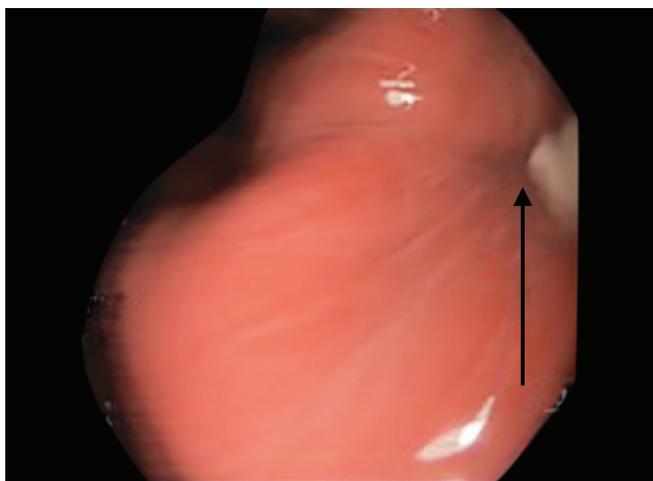


Fig. 1: Upper gastrointestinal endoscopy showing the fistulous opening in stomach with pus draining from it

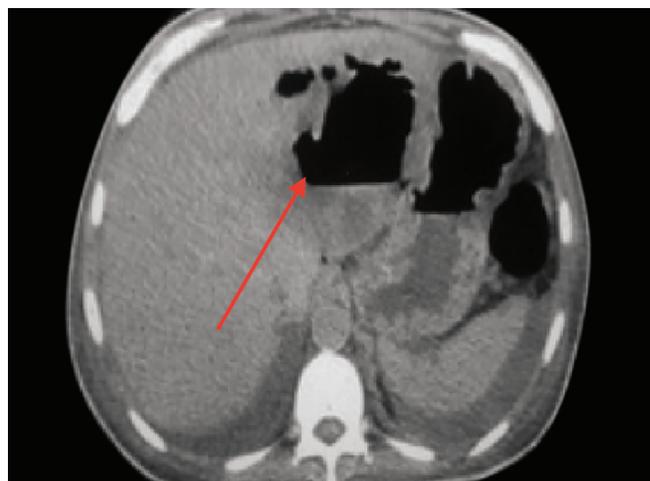


Fig. 2: Contrast-enhanced computed tomography of the upper abdomen showing air in abscess cavity

complication of ALA.³ Only a few case reports have been described in the literature. This complication can present as persistent pain in the abdomen with bilious vomiting, hematemesis, or melena. Some of these patients will have a sudden decrease in pain with the onset of these symptoms, probably due to the reduction in the size of the abscess cavity following rupture. In this case, the patient had become asymptomatic with metronidazole and presented with hematochezia, which was possibly partly due to erosions of blood vessels secondary to pressure on the wall of the stomach due to abscess and partly due to sudden decompression of abscess cavity following rupture. CT showed air foci in the abscess cavity with fistulous communication, and upper gastrointestinal endoscopy (UGIE) showed an ulcer with discharge. Majority of the case reports describe the development of hepatogastric fistula either at the beginning of the treatment due to large size or after percutaneous drainage was done.⁴ In this case, the patient had spontaneous rupture that too, after significant clinical and radiological improvement with a decrease in size on day nine. In the past, spontaneous hepatogastric fistula, as a complication of the liver abscess, has been managed with surgery.⁴ Presently spontaneous rupture of liver abscess into pleura or peritoneum is being managed conservatively with or without percutaneous drainage and when required with an endoscopic retrograde cholangiopancreatography (ERCP) and biliary stenting in case of internal biliary fistula.⁴ Similarly, this case was also managed conservatively without any surgical or radiological intervention with complete resolution of the abscess. Operative strategies are recommended in hepatogastric fistula,⁵ if the fistula fails to heal by conservative management or if there are features of peritonitis. Another case report of spontaneous

hepatogastric fistula secondary to tubercular liver abscess also healed completely with antituberculosis treatment without any surgical intervention.⁶ This patient also responded to conservative management with spontaneous healing of fistula and resolution of the abscess.

CONCLUSION

A spontaneous hepatogastric fistula is an extremely rare complication of ALA and may present with GI bleed or a sudden drop in hemoglobin and can be managed successfully with conservative management if diagnosed early.

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