

Hepatogastric fistula: A rare complication of amoebic liver abscess- A case report

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ABSTRACT

A 60 year-old male patient presented with complaints of fever with chills, pain abdomen and diarrhoea for 15 days. On evaluation the patient had hepatomegaly with tenderness in right hypochondrium and epigastrium. USG abdomen revealed liver abscess involving left lobe of liver. Serology for *Entamoeba histolytica* was found to be positive. CT abdomen noted that the abscess was closely abutting the stomach and contained air foci. On exploration the part of stomach abutting the abscess cavity revealed a perforation. Presentation of amoebic liver abscess in form of hepatogastric fistula is rare and only about twenty cases have been reported.

Keywords: *Entamoeba histolytica*, Hepatogastric fistula, Left liver lobe, Liver abscess

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INTRODUCTION

Amoebic liver abscess is the most common extra-intestinal manifestation of invasive amoebiasis¹. Among the common complication is rupture of abscess into thoracic and peritoneal cavity^{2,3}. Rupture into stomach leading formation of

hepatogastric fistula is very rare and to our knowledge less than 20 cases have been reported. Here we report a case of hepatogastric fistula secondary to amoebic liver abscess which was diagnosed intraoperatively.

CASE REPORT

A 60 year old male patient presented with chief complaints of fever with chills, pain abdomen involving the epigastrium and right hypochondrium and diarrhoea for 15 days. Per abdominal examination revealed tenderness in epigastrium and right hypochondrium along with hepatomegaly. Rest of the examination was normal. Routine blood investigations revealed haemoglobin – 11.9 gm/dl, TLC (Total Leucocyte Count) – $25 \times 10^3 / \text{mm}^3$, DLC showed 90% neutrophils and liver function tests were mildly deranged. Ultrasonography (USG) whole abdomen

revealed 11 x 10 cm hypoechoic lesion in left lobe of liver with hepatomegaly and mild ascites suggesting the presence of left liver lobe abscess. Serology for *Entamoeba histolytica* was found to be positive.

Based on these findings patient was started on intravenous Metronidazole and Ceftriaxone. CECT whole abdomen showed findings similar to USG alongwith multiple air foci in abscess cavity and abscess was found to be in close approximation with stomach. Gastric communication of cavity was considered the reason of multiple air foci (Figure 1).



Figure 1: CT abdomen section revealing air foci in abscess cavity and closely abutting stomach

Based on these investigations exploratory laparotomy was planned. On exploration an approximately 10 x 10 cm size abscess was found on inferior surface of left lobe of liver. This abscess was closely abutting the lesser curvature of

stomach and contained anchovy sauce pus. On further exploration an approximately 7 cm X 2 cm sized perforation was found over stomach which was abutting the abscess cavity (Figure 2).



Figure 2: Intraoperative picture showing stomach perforation with abscess cavity

Based on these findings a diagnosis of hepatogastric fistula with amoebic liver abscess was diagnosed. Repair of gastric perforation after freshening of margins was done alongwith drainage of liver abscess. Thorough peritoneal lavage was done and abdomen closed after placement

of abdominal drain in abscess cavity and pelvis. Biopsy of resected specimen revealed inflammatory changes only. Postoperative period was uneventful and patient was discharged after 7 days with patient taking oral diet. During follow-up a

USG was done which revealed resolution of abscess cavity.

DISCUSSION

Amoebiasis occurs in about 10% of population worldwide and is common in tropics¹. Development of amoebic liver abscess occurs in less than 1% of the patients infected with *E. histolytica*⁴. Diagnosis of amoebic liver abscess depends on identification of lesion on imaging along with positive serology¹. Serology is highly sensitive and specific for diagnosis of amoebic liver abscess⁴.

Amoebic liver abscess commonly involves the right lobe of liver and left liver lobe involvement seen in 6-33% of cases⁵. Left lobe abscesses behave differently from right lobe abscesses. The small size of left lobe along with rarity of these lesions makes the diagnosis difficult leading to a higher incidence of complications⁵.

Complications of amoebic liver abscess include rupture into peritoneal

cavity, pleural cavity and pericardium^{2,3}. Rupture into gastric cavity is one of the most unusual complication. Rapid enlargement of abscess cavity, vomiting or nasogastric aspirate containing typical anchovy sauce pus and aspiration of gastric contents from abscess cavity may indicate the presence of hepatogastric fistula⁶. Imaging studies may show liver abscess with air foci and CECT may show communication between stomach and abscess cavity⁷.

Other conditions which may produce air foci within liver abscess include infection with gas forming organism, enteric fistula formation and recent instrumentation⁸. Other investigations which may be helpful in diagnosis include upper GI contrast studies and endoscopy. In our case, CT findings, positive amoebic serology and intraoperative findings of anchovy sauce pus and communication between stomach and abscess were helpful in diagnosis of

amoebic liver abscess with hepatogastric fistula.

Due to rarity of these cases there are no guidelines available regarding management of amoebic liver abscess with hepatogastric fistula. As a result, both non-operative and operative management strategies exist⁹. Non-operative management includes nil by mouth, adequate drainage, antibiotics, fluid and electrolyte management and stomach decompression⁹. Among antibiotics the efficacy of metronidazole in the treatment of amoebic liver abscess is well established. Following conservative management spontaneous closure of fistula is expected to occur within 5 weeks⁹. Some authors recommend this approach and advice surgical intervention in cases of non-resolution of abscess, worsening of patient's general condition or development of complications. Many other authors have recommended early surgery for amoebic abscesses rupturing into gastrointestinal

tract¹⁰. We decided for an early surgical intervention rather than opting for initial conservative management.

CONCLUSION

Hepatogastric fistula secondary to amoebic liver abscess is an extremely rare occurrence. Imaging studies like USG and CT abdomen along with serology may help in its diagnosis. No uniform guidelines are available for its management and both medical and surgical strategies may be considered for treatment of this unusual and rare complication of amoebic liver abscess.

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