AMOEBIASIS WITH MULTIPLE COLONIC PERFORATIONS AND RUPTURED LIVER ABSCESS – A CASE REPORT

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SUMMARY

A case of amoebiasis with colonic perforation and ruptured liver abscess is reported. It is rare for both these complications to occur in the same patient. The management is described and the literature reviewed.

INTRODUCTION

Amoebiasis is endemic in Malaysia with a relatively higher incidence among Indians living in the rural areas. Patients are commonly admitted to the medical wards for amoebic dysentery or to the surgical wards for liver abscess. Rarely patients are admitted for perforation of amoebic colitis and sometimes with liver abscess which has ruptured into the peritoneal cavity, [1] but hitherto no patient has been admitted for both complications. A patient with both complications is reported because of the difficulty in diagnosis and the problems in management.

CASE REPORT

The patient, a 43 year old Indian male labourer, gave a history of passing blood and mucus in the stool several times per day for one month. One week later he complained of continuous abdominal pain more severe in the flanks and upper abdomen. Two days prior to admission the abdomen became distended and, he complained of nausea but no vomiting.

He was anorexic and there was marked loss of weight. He became bedridden and passed only very small amounts of urine. He had no previous history of dysentery. He was a chronic alcoholic. On examination he was thin, poorly nourished, grossly dehydrated, afebrile, pale and slightly icteric. Pulse was 120/min. blood pressure was 110/70 mm Hg. Lung fields were clear. The abdomen was distended and there was a bulge in the right hypochondrium and epigastrium. The veins of the abdominal wall were distended. The abdomen was tender and guarded, and there was a soft, tender mass in the liver measuring 8 cm x 5 cm. Bowel sounds were absent. On proctoscopy there was marked tenderness at the anal orifice and spasm of the sphincter. There was an ulcer about 3 cm diameter on the left wall of the rectum with yellowish slough and undermined edge, typical of amoebic ulcer. Blood and mucus were seen tracking down from the rectum.

Investigations: Hb: 9.0 g/dl, WBC: 12,200/pL with normal differential count. ESR: 20 mm in the first hour. Blood urea: 9.8 mmol/1. Serum Na^+: 130, K^+: 3.8, Cl^-: 98 mmol/l. Serum amylase: 50 mmol/l, serum protein: 45 g/l, albumin: 23 g/l, serum bilirubin: 103 umol/l, alkaline phosphatase: 193 U/l, GOT: 300 U/l. Scrapings from rectal ulcer showed *E. histolytica* cysts and throphozoites. On x-ray the right hemidiaphragm was elevated and the liver enlarged. There was no pleural

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Fig. 1 Ascending colon showing multiple perforations. Note the thickened bowel wall.

effusion on the right side.

A diagnosis of peritonitis following a rupture of amoebic liver abscess with amoebic colitis was made. The stomach was aspirated with nasogastric tube. He was given 3 units of blood, 4 units of 5% dextrose and 2 units of 5% dextrose in saline over 12 hours. He was put on gentamicin 80 mg 8 hourly and intravenous metronidazole 800 mg 8 hourly. His abdomen was explored through a right transverse subcostal incision. There was free bile-stained serous fluid and faecal matter with fibrinous exudate in the peritoneal cavity and thick chocolate colour fluid in the right paracolic gutter. There was a large abscess in the posterior part of the right lobe of the liver which had ruptured into the peritoneal cavity, and another abscess in the anterior part of the right lobe. The two abscess cavities did not communicate with one another. The liver was not cirrhotic. There was a mass in the right side of the transverse colon surrounded by omentum. The incision was extended by a right paramedian extension. There were multiple perforations in the caecum, ascending and transverse colon, the largest of which was in the hepatic flexure and measured 3 cm x 3 cm. The colon was thickened and inflamed with patchy gangrenous areas between the perforations. The mucosal surface was studded with fibrinous exudates (Fig. 1). The terminal ileum and the colon beyond the splenic flexure were normal.

An extended right hemicolectomy with end-to-end anastomosis between ileum and splenic flexure was performed after peritoneal toilet. Two drains were inserted, each at the subhepatic space and the anastomotic site. Metronidazole and gentamicin were continued for ten days. On the 10th post-operative day the abdomen was soft and bowel sounds were normal and oral feeds was commenced. Bowel action was normal but there was severe respiratory distress. Chest x-ray showed collapse of the right lower lobe. Tracheostomy was performed to facilitate bronchial suction. There was no improvement in his chest condition. On the 28th day he collapsed, and died on the 30th day of septicaemia.

DISCUSSION

Perforation of the colon from amoebiasis is very infrequent [2,3] but when it occurs the perforations are often multiple. [4] Amoebic liver abscess may rupture into peritoneal or pleural cavity or into the bronchus and pericardium. The incidence of intra peritoneal rupture of amoebic liver abscess is between 6 - 9 percent. [5] However it is extremely rare to have both these complications occurring simultaneously. Mukherjee *et al* [6] reported one similar case who died on the second post-operative day. Eggleston *et al* [7] reported 26 cases of amoebic perforations of the bowel, of which 6 had concomitant unruptured liver abscess — all of them died shortly after surgery. Factors which

appear to contribute to perforation of the colon include the virulence of the amoeba, [8] diabetes and alcoholism, [9] trauma and parturition. [10] This patient was an alcoholic. The entire length of the diseased colon was thickened in contrast to the paper-thin appearance reported by Armstrong *et al.* [11]

Barker [12] advocates non-operative treatment for this type of perforation using nasogastric suction, antibiotics and amoebicidal drugs. In this patient it is probable that the perforation occurred about one week after the onset of the diarrhoea and could have sealed spontaneously. His condition deteriorated with the rupture of the liver abscess two days prior to admission indicating surgical intervention. However with the highly infective large bowel content in mind, one should be very careful at the decision for conservative treatment. Talukder [13] is of the opinion that unless there is compelling reason for resection as in extensive and definite gangrene of colon, resection must be avoided. In unavoidable cases defunctioning colostomy or ileocolostomy is preferable to primary anastomosis. This was based on the experience of Thomas [14] who had a mortality of 87 percent after treating 8 patients with amoebic bowel perforations by resection. It is notable that our patient lived for 30 days and died of fulminating septicaemia. Amoebic perforation of the colon with peritonitis carries a high mortality rate of 75 - 100%. [12]

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