

Complicated large multiple amoebic liver abscesses

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Introduction

Amoebiasis is largely a disease of tropical and developing countries and a leading cause of diarrhoeal disease worldwide. Most common form of extraintestinal amoebiasis is amoebic liver abscess with right upper quadrant pain and fever [1].

Late diagnosis or presentation of amoebic abscess may lead to perforation in about 2% of patients and amoebic peritonitis resulting in high mortality rates [2].

We report a rare case of large multiple amoebic liver abscesses involving almost the whole liver and rupture of both right and left lobe abscesses which were managed successfully.

Case report

A 29 yr old male presented with abdominal pain and fever for 15-20 days, with loss of appetite for 5 days.

Physical examination revealed a pulse rate of 110/min, blood pressure of 110/70 mmHg, temperature of 37.5°C, respiratory rate of 34/min, with decreased air entry in right side chest.

On abdominal examination there was tenderness and guarding in the right upper quadrant with hepatomegaly extending 5 cm below right costal margin.

Investigations showed Hb 9.0gm%, TLC 14300/mm³, total bilirubin 1.4mg% (normal range, 0.2 – 1.0 mg%), aspartate aminotransferase (AST) 209 IU/L (normal value, <40 IU/L), alanine aminotransferase (ALT) 132 (normal value, <40 IU/L), alkaline phosphatase (ALP) 406 IU/L (normal range, 100 – 306 IU/L). HIV and HBsAg serology were non-reactive.

Ultrasound examination showed multiple liver

abscesses in both lobes of the liver, largest being 7.5 × 6.5 cm in size.

The patient tested positive for amoebic antibody by ELISA test. No pathogenic organism was detected on stool examination.

Patient was started on intravenous metronidazole. Ultrasound guided aspiration was done and typical anchovy sauce like pus was drained (Figure 1) which was sterile on culture for bacteria. Repeat aspirations were done on second and fourth day.

His condition suddenly deteriorated on fifth day with signs of tachycardia, tachypnoea and generalized guarding. A rupture of an abscess was suspected. Urgent computerised tomographic (CT) scan was done.

It revealed multiple liver abscesses occupying almost the whole of the liver, largest being 10 × 8 cm in the right lobe (Figure 2) with a right pleural effusion. Abscesses in the right and left lobe were near the capsule with suspicion of rupture.

Urgent exploratory laparotomy was performed. It revealed multiple liver abscesses with the two largest



Figure 1. Anchovy sauce like pus of amoebic liver abscess

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Figure 1. CT Scan showing huge multiple liver abscesses and rupture of left lobe abscess

abscess cavities in the right and left lobes ruptured into the peritoneum. One litre of anchovy sauce like pus was drained from the abscesses and peritoneal cavity.

All the cavities were drained and lavage done. Drains were placed in ruptured cavities and one drain was placed in the pelvis.

A right intercostal drainage tube was placed, which drained 700 ml of serous fluid.

Post-operatively the patient was given intravenous piperacillin + tazobactam and metronidazole with supportive care.

Patient was discharged after a month of hospital stay.

Discussion

Ten percent of the world's population harbors *Entamoeba histolytica* in their colon, 10% of them may develop invasive amoebiasis and 1–10% of these patients develop amoebic liver abscesses (ALA) [3]. Eighty percent of ALAs present as a single abscess in the right lobe of liver [1].

In patients with multiple liver abscesses aspiration may be needed to differentiate between amoebic and

pyogenic abscess. Aspiration has also been indicated in patients showing lack of clinical improvement in 48-72 hours, left lobe abscess, thin rim of liver tissue around the abscess (<10mm). Surgical intervention is indicated in large abscesses with poor yield on needle aspiration and complicated abscesses [4].

The preferred drug for the treatment of extraintestinal amoebiasis is metronidazole. It is completely absorbed orally and has a cure rate of 90% in most cases [5].

About 2-7% of ALAs are complicated by perforation. Perforation sites mostly include pleuropulmonary (72%), subphrenic (14%) and peritoneal cavity (10%). Non-ruptured ALAs have a mortality rate of 4.2 – 4.8%. When ALAs rupture the mortality reaches 23-42% [6].

Early diagnosis and prompt intervention are essential to reduce mortality.

References

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Key points:

- 10% of the world's population harbours *Entamoeba histolytica* in their colon.
- 10% will develop invasive amoebiasis.
- 1-10% will develop amoebic liver abscesses.
- Preferred antibiotic is metronidazole.
- Aspiration of the abscess is the treatment of choice, if small, and surgical drainage advocated for an abscess that does not respond to antibiotics, or a large abscess.