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Amoebic Liver Abscess Presenting As Fever of Unknown Origin: An Uncommon Presentation of a Common Disease.

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ABSTRACT

Pyrexia of unknown origin usually requires extensive diagnostic and therapeutic investigations. At times, even after these extensive procedures, the patient's condition might go undiagnosed. There is no limit to the spectrum of diseases or infections that present as fever of unknown origin. This case report showcases one such case of undiagnosed pyrexia, which later turned out to be due to a large amoebic liver abscess. Although amoebic liver abscesses are not uncommon, the presentation in the current scenario was uncommon.

Keywords: Entamoeba, Amoebiasis, Hepatic, Pyrexia

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INTRODUCTION

Liver abscesses are commonly encountered in a clinical setup. The aetiological factors for liver abscesses may include a wide variety of micro-organisms, ranging from bacteria to parasites. Echinococcusgranulosus and Entamoeba histolytica are common causative organisms of parasitic liver abscesses [1].

Amoebiasis (caused by Entamoeba histolytica) is a widespread disease, more frequently seen in developing nations. The disease is most often intestinal, although extra-intestinal features may also be produced. The most common extra-intestinal manifestation of amoebiasis is amoebic liver abscess [2]. Usually, diagnosis of an amoebic liver abscess is straightforward. This case report highlights the significance of considering amoebic liver abscess in the differential diagnosis of fever of unknown origin, especially among chronic alcoholics.

Case Report

A middle-aged male with no premorbid medical illnesses was referred as a case of persisting fever for 3 weeks. He had received intravenous ceftriaxone and piperacillin-tazobactum despite which he continued to have spikes of fever.

Examination revealed a moderately built and nourished man, with a temperature of 102°F. Vital signs were otherwise stable. General and systemic examinations were insignificant. The patient was a chronic alcoholic and consumed 180ml of whiskey daily for the past 20 years. There was no history of recent travel or history of insect bites.

Laboratory investigations revealed a total leucocyte count of 22,000 cells per cu.mm. Liver function tests revealed mildly elevated transaminases and alkaline phosphatase (AST-84,ALT-82,ALP-240). All other biochemical investigations were within normal limits. Chest X-ray was normal. Routine workup for febrile illnesses like malaria (by QBC method), leptospirosis (by serological tests), scrub typhus (by serological tests)turned out to be negative. Blood cultures drawn were also sterile. A contrast-enhanced CT scan of the abdomen revealed a large liver abscess involving segments, almost occupying the entire right hepatic lobe, as shown in figures 1 & 2.

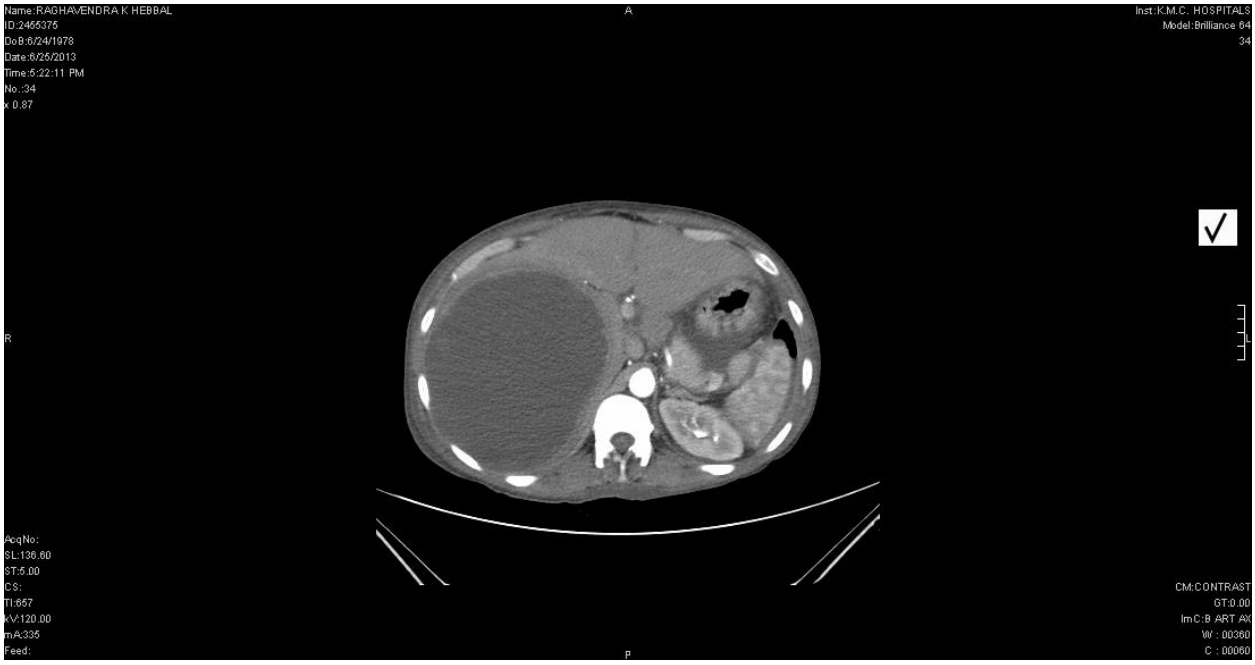

Figure 1: CT Scan image showing a large hepatic abscess with impending rupture

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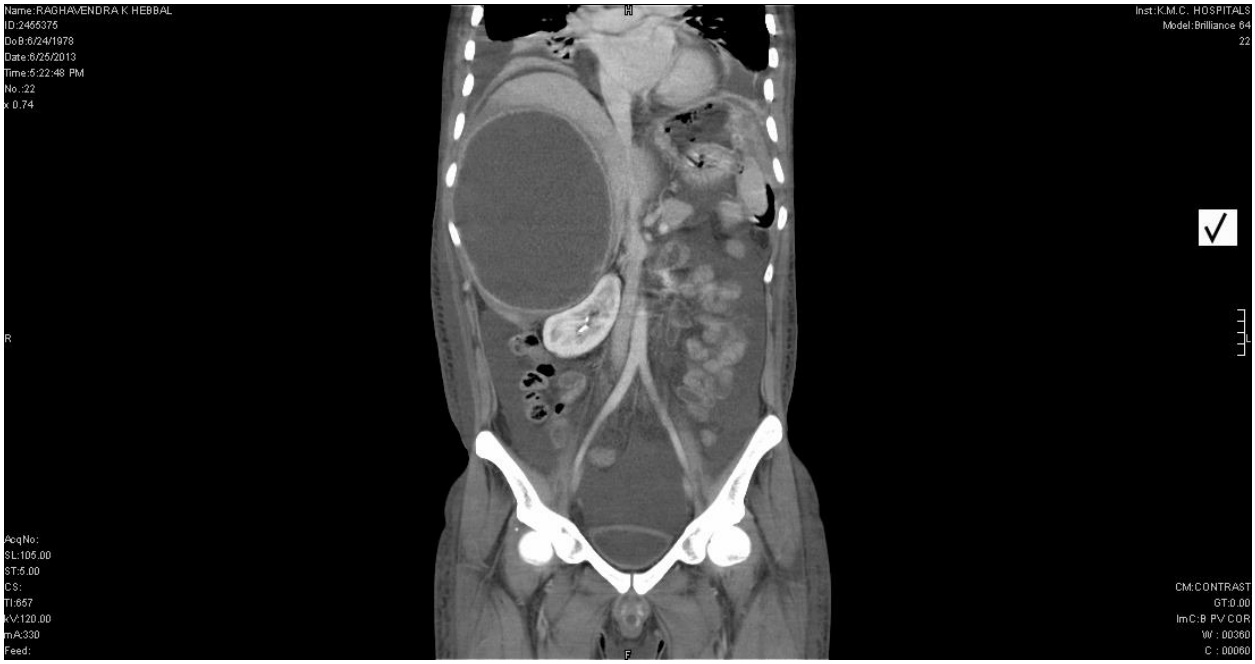

Figure 2: CT Scan image showing a large hepatic abscess with impending rupture

The patient was started on intravenous metronidazole 500mg thrice a day. Since the patient continued to have spikes of fever and also appeared toxic,immediate drainage of the abscess was performed. It was a large abscess, measuring 17.3x12.1x14.2 cm, with impending rupture. His fever reduced drastically with drainage of the abscess and with addition of metronidazole. Serology test for amoebiasis was positive, thus confirming the diagnosis of amoebic liver abscess. He improved drastically, and was discharged after the abscess was successfully drained with the insertion of USG-guided pigtail catheter.

DISCUSSION

Amoebic liver abscess is 7 to 10 times more common among adult men than other demographic groups, despite equal gender distribution of colonic amebic disease [3]. It is seen most commonly among men in their fourth and fifth decades, as was the case in our patient [4].The presence of concomitant diarrhoea is seen only in one third of the patients with hepatic amoebiasis. Jaundice is also a rare manifestation occurring in only <10% of the patients [2].Amoebic liver abscesses are most commonly seen in the right hepatic lobe, and are usually solitary subcapsular lesions [5].Amoebic serology is positive in almost 99% of individuals with amoebic liver abscess [6].

Maltz et al. have reported a case of amoebic liver abscess presenting in a similar manner, with over two months of undiagnosed fever. However, in their report, the patient had a history of recent travel to an endemic area, and was also treated for amoebic dysentery prior to his progression to the extra-intestinal (hepatic) stage [2].

A study by Farid et al. in Egypt revealed about 24 cases of hepatic amoebiasis that presented as fever of unknown origin, over their study duration of about three years [7].

Also, Husa et al. reported a case of multiple liver abscesses in a young male, who presented with only fever at the time of admission. The abscessed later turned out to be amoebic in aetiology [1].

The standard of care in all these quoted cases remained the same. Diagnosis involved imaging modalities like CT scan and MRI, and serological tests for species identification. Treatment included metronidazole (orally or intravenously) and drainage of the abscess (guided via USG or CT) [1, 2, 7]. The patient in the current scenario was also managed in a similar fashion.

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CONCLUSION

Pyrexia of unknown origin is a tricky situation, as diagnosis poses a major threat in terms of delay in initiation of specific therapy. As it is evident from the case report, amoebic liver abscess must be considered in the differential diagnosis of any case of pyrexia of unknown origin. Timely drainage of the abscess and administration of metronidazole could prevent a catastrophic rupture that might result in dreadful outcomes, including death of the patient.

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