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Case Report

KLEBSIELLA ASSOCIATED GAS PRODUCING PYOGENIC LIVER ABSCESS

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ABSTRACT
Fifty year old male patient presented with complaints of high grade fever, pain in right upper quadrant of abdomen and vomiting. On admission, he was found to have diabetic ketoacidosis and gas producing liver abscess. Pus and blood culture showed growth of Klebsiella pneumoniae. He responded to long term antibiotics and good sugar control.

Keywords: *Liver, Abscess, Diabetes*

INTRODUCTION
Gas producing pyogenic liver abscess (GPLA) is a rare disease seen mainly in patients with underlying diabetes mellitus. If not managed urgently, it can be life threatening. We hereby report a case of gas producing liver abscess at our centre.

CASES
Fifty year old male patient presented with complaints of high grade fever with chills and rigors for ten days, pain in right upper quadrant of abdomen for ten days and vomiting for the last five days. He was not a known case of diabetes mellitus.
He was a chronic alcoholic and did not report intravenous drug abuse. On examination, he was febrile, icteric, pale, had tachycardia (pulse rate 120/ min) and looked toxic.

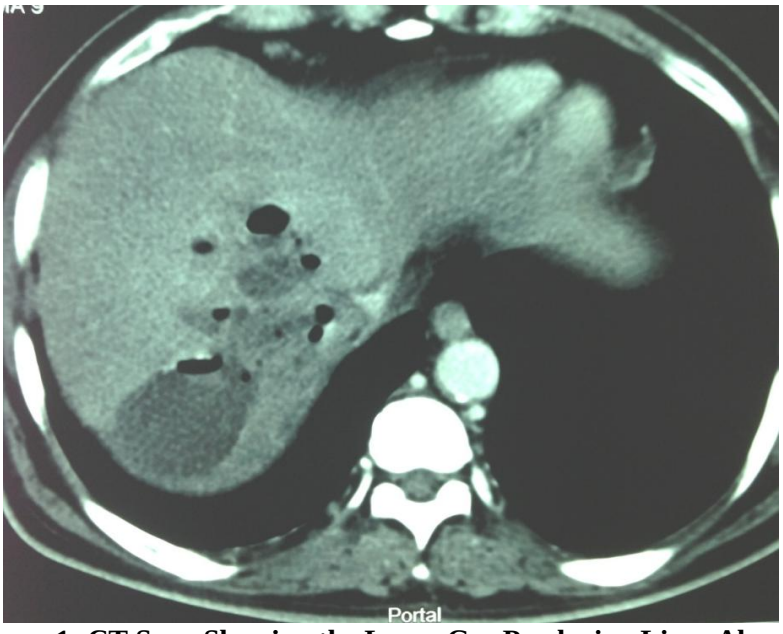

Figure 1: CT Scan Showing the Large Gas Producing Liver Abscess

He had tender hepatomegaly and Murphy's sign was negative. Baseline investigations showed leucocytosis (hemoglobin 10 gm/dl, 17,880 with 88% neutrophils), high blood sugar levels (364mg/dl)

and presence of ketones in the urine. Serum bilirubin was high (3.5 mg/dl) with elevated alanine(152IU/ml) and aspartate (182 IU/ml) aminotransferases. Serological tests for HIV and hepatotropic viruses were negative. Contrast enhanced computed tomography of the abdomen (figure 1) showed gas forming abscess in the segments I, IV, VII and VIII of liver and an old granulomatous lesion in segment VIII of liver, cholelithiasis and fatty changes in the liver. Amoebic serology and serological test for hydatid disease were negative. Ultrasound guided pigtail placement was done into the abscess. Pus culture showed growth of Klebsiella pneumoniae. Blood culture also showed growth of Klebsiella pneumonia. Patient was started on appropriate antibiotics for infection and human insulin to control blood sugar levels. He gradually improved over a period of fourteen days.

DISCUSSION

Gas-forming pyogenic liver abscess (GPLA) is rare and is associated with a high mortality rate. It is commonly associated with underlying diabetes mellitus (DM). Gas formation occurs as a result of mixed acid fermentation within the abscess by formic hydrogenlyase, an enzyme produced by certain bacteria. Presentations can be nonspecific leading to a delay in diagnosis. Management includes urgent drainage of the abscess (Chong *et al.,* 2008). Klebsiella pneumonia associated pyogenic liver abscess is complicated by bacteremia, sepsis, and metastatic infection of brain, eyes, lungs and other organs, especially in patients with diabetes (Chung *et al.,* 2007; Lederman and Crum, 2005).

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