A Case of Severe Gas-forming Liver Abscess

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Abstract

Liver abscess was a bacterial infected disease. Liver abscess could be described as Gas-forming and non-Gas-forming. There was high prevalence of liver abscess in Asia, especially in Taiwan, Singapore and Korea. The patient was a 48-year-old Taiwanese woman who admitted to our hospital with abdominal pain for 1 week. After abdominal computed tomography (CT) scan, a large gas forming abscess was presented (15.7 × 13.6 × 17.6 cm). Klebsiella pneumoniae was cultured from pus and blood. The patient was treated with antibiotics and status post (s/p)-pig tail drainage for two times. Gas-forming liver abscess was a disease with high mortality rate and induced bacteremia. Therefore, Gas-forming liver abscess was thought important and has to be treated immediately.

Keywords: Liver abscess; Gas-forming

Introduction

Klebsiella pneumoniae was one of the bacteria that could cause much infection [1,2]. In previous studies it showed that Klebsiella pneumoniae was the major cause of liver abscess, bacillary meningitis, brain abscess, lung abscess, thoracic empyema, prostatic abscess, deep neck infection and complicated skin and soft tissue infections [1]. Moreover, high prevalence of liver abscess infected with Klebsiella pneumoniae had been observed in Taiwan [3]. The prevalence of liver abscess clinically infected with Klebsiella pneumoniae was 30% in 1977, and rapidly increased to 80% in 1990s [4]. Furthermore, liver abscess could be described as Gas-forming and non-Gas-forming. In pyogenic liver abscess (PLA) cases, Gas-forming pyogenic liver abscess (GFPLA) accounted for 7% to 32%. [5]. Besides, the mortality rate of GFPLA was higher (27.7-37.1%) than non-GFPLA group [5], especially in Diabetes mellitus (DM) patients.

We here reported a patient with Gas-forming liver abscess caused by Klebsiella pneumoniae with DM in Taiwan.

Case Report

The patient was a 48-year-old Taiwanese woman who was a homemaker with a history of hypertension and DM type II. She was presented with abdominal pain for 1 week before admission. Afterwards, the patient was brought to our ER due to persistent abdominal pain for 1 week. Laboratory data at admission were listed as the followings: WBC: 24100/ul, platelet: 553000/ul, Hb: 11.4 g/dl, Na: 121 mmol/L, K: 7.0 mmol/L, GPT: 288 U/L, Glucose: 626 mg/dl. Meanwhile abdominal CT was arranged and it revealed: (1) Hepatic steatosis. Small calcifications in bilateral hepatic lobes. Presence of hepatic pyogenic abscesses with size about 15.7 × 13.6 × 17.6 cm, and cystic neoplasms with central necrosis. (2) Mural swelling of gallbladder. (3) Presence of calcifications in spleen. (4) Small right renal cyst. (5) Presence of ascites. Moreover, K. pneumoniae was cultured from pus and blood.

Abdominal computed tomography (CT) (Figure 1) showed a severe gas-forming liver abscess.

Liver abscess s/p pig tail drainage was performed on 2013-11-30, and second s/p pig tail treatment was performed on 2013-12-01. With the first treatment of pig-tail drainage, the abscess was >10 cm in size, and was located in right lobe. After 10 days, the second treatment of pig-tail drainage was carried out. The abscess was located in S7-8 and the aspirated fluid was pus-like.

The patient was discharged smoothly after 40 days.

For liver abscess, a certain amount of antibiotics should be used in early stage. However, if the medical treatment or percutaneous drainage failed, an immediate surgery should not be delayed [6].

References


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Received January 04, 2014; Accepted January 14, 2014; Published January 15, 2014


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Figure 1: Gas forming liver abscess diagnosed by CT.