from an elderly patient with non-cirrhotic hepatitis C that needs further evaluations.

Methods A 78-year-old man was admitted due to right upper quadrant pain, mild fever and weight loss. Triple-phase abdominal CT showed a large liver mass (12.8 × 8.6 × 10.2 cm in size) with perihepatic fluids and multiple cystic lesions in various sizes that were conglomerated inside the mass (figure 1). Multiple satellites nodules with central cysts were also found, suggesting either hepatocellular carcinoma (HCC) with intrahepatic metastasis or multiple liver abscesses. He had elevated leucocytes (15,570 mm−3) and alanine transaminase (244 U/L). However, his serum seroama and fecal amoeba tests were negative. His Anti-HCV serology was positive. Moreover, his AFP and CEA levels were 75.94 ng/mL and 1.8 ng/mL consecutively. Two weeks course of antibiotics were initiated with no changes in his liver masses after further evaluation of abdominal CT. However, his leucocytes and alanine transaminase improved towards normal levels. Liver biopsy was offered for the patient, but he refused to do so.

Results The presentation of HCC can sometimes mimic an abscess, especially when cystic degeneration appeared within the tumor. Meanwhile, there were some cases of liver abscesses that were indistinguishable from HCC. The patient, in this case, had fever and leucocytosis, which were the characteristics for liver abscess. Moreover, his AFP level was not increased significantly. However, insignificant changes after antibiotic therapy raised a dilemma on his definite diagnosis. Although very rare, a non-cirrhotic hepatocellular carcinoma in hepatitis C can also occur. This direct carcinogenesis mechanism can be potentially induced by the non-structural protein of hepatitis C virus. Looking at this case, a liver biopsy is needed for concluding a diagnosis for this patient.

Conclusions Establishing a diagnosis for atypical presentations of HCC and liver abscess can be quite difficult. Due to the big differences in their prognosis, familiarity with unusual clinical and imaging findings, as well as liver biopsy, are needed to ensure a certain diagnosis for the patient.

Clinical Analysis of LAPS in the Treatment of Hepatitis B Virus-Related Hepatocellular Carcinoma

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Background The aim of the study is to assess the efficacy and safety of laparoscopic microwave ablation and portal vein ligation for staged hepatectomy (LAPS) in the treatment of hepatitis B virus-related hepatocellular carcinoma.

Methods Clinical data of patients with hepatitis B virus-related liver cancer who underwent LAPSS or ALPPS surgery in the First Affiliated Hospital of Sun Yat-sen University from April 2013 to September 2019 were retrospectively analyzed. In the study, all patients signed informed consents and were approved by local ethics committees. Statistical analysis of data were performed by the SPSS 26.0.

Results 7 patients with HCC underwent LAPS, while 14 patients underwent ALPPS surgery during the same period. 42.9% of patients had a single tumor, and the median tumor diameter was 96 mm (range: 26–151 mm), the median preoperative FLR was 29.0% (range: 19.5–38.8%). The severe morbidity rates of patients undergoing LAPS was lower than those receiving ALPPS after the first operation ($P=0.009$). The median time to first passage of flatus of patients in the ALPPS group and LAPS group was 3d and 2d ($P=0.037$) and the median time to out of bed was 4d and 2d ($P=0.040$). 6 patients in the LAPS group completed the second stage operation, and 11 patients in the ALPPSS group completed the second stage operation ($P=0.694$). The median interval was 15 days in the LAPS group and 11 days in the ALPPS group ($P=0.006$). The incidence of severe complications was 36.4% in the ALPPSS group and 50.0% in the LAPS group after the second operation ($P=0.615$). One patient in the ALPPS group died after the second operation. There was no difference in FLR growth rate, operative time and intraoperative loss between the two groups.

Conclusions LAPS has potential advantages over classical ALPPS in reducing postoperative liver failure and severe complications. LAPS may have the same effect in promoting the growth of FLR in patients with hepatitis B virus-related HCC, with a longer interval between the two operations.