



A giant hepatocellular carcinoma from plateau region treated with transcatheter arterial chemoembolization

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A 59-year-old Tibetan woman from plateau region presenting to our hospital's Department of Interventional Therapy. Complaining of tolerable pain in right upper abdomen for 4 months, the patient received symptomatic treatment at the local clinic and then transfer to our hospital. She was negative for hepatitis B surface antigen and negative for anti-hepatitis C antibody. The blood tests performed showed hyperbilirubinemia, with total bilirubin of 25.1 $\mu\text{mol/L}$, gamma-glutamyl transpeptidase (GGT) 47 U/L, alkaline phosphatase (ALP) 83 U/L, albumin (ALB) 31.2 g/L and alanine aminotransferase (ALT) 15 U/L. Tumor marker values were within normal ranges (serum alpha-fetoprotein, 1.36 ng/mL; carcinoembryonic antigen, 3.04 ng/mL). An abdominal computed tomography (CT) scan showed an 11.47 cm \times 15.57 cm \times 22.77 cm solid mass in the right lobe of the liver (*Figure 1A,1B*) and the density of the mass is not homogeneous. In July 2020, the patient underwent transcatheter arterial chemoembolization (TACE). After TACE, fever and pain in right upper abdomen were noted. Symptoms resolved within 3 days. No other serious complications were observed after TACE. Then, a contrast-enhanced abdominal CT revealed lipiodol was deposited in the lesions and there was no significant intravascular reflux (*Figure 1C,1D*). We followed this patient for 4 months and last follow-up CT revealed the

deposition of lipiodol (*Figure 1E,1F*) was in the lesion and no new lesion was found. In the follow-up period, patient is in a stable condition. In this case, TACE can be a good treatment strategy for a large primary tumor accompanied by multiple intrahepatic metastases. However, there has been no widely accepted consensus regarding the treatment of such huge hepatocellular carcinoma (HCC).

There are some uncommon features can be observed in this case. Even if the level of tumor marker is normal, the mass of giant HCC can be enormously huge. Besides, this case showed the presence of giant HCC can be observed even no evidence of tumor rupture. Considering the development of HCC lesion could be symptomatic (1), giant HCC sometimes can be a special case because this case has no significant symptoms until the lesion reaches a certain size. Another feature is that this case comes from plateau region. High-altitude populations have developed genetic adaptations that permit their survival in extremely hypoxic environments (2). Hypoxia has significant impact on tumor incidence and mortality, and exposure to high altitude has been demonstrated to ameliorate cancer progression (3). However, the relationship between plateau and tumor development remains to be fully identified. We endorse for more clinical cases to identify clinical characteristic of giant HCC. We trust that the topics in this case might be helpful while interpreting giant HCC.

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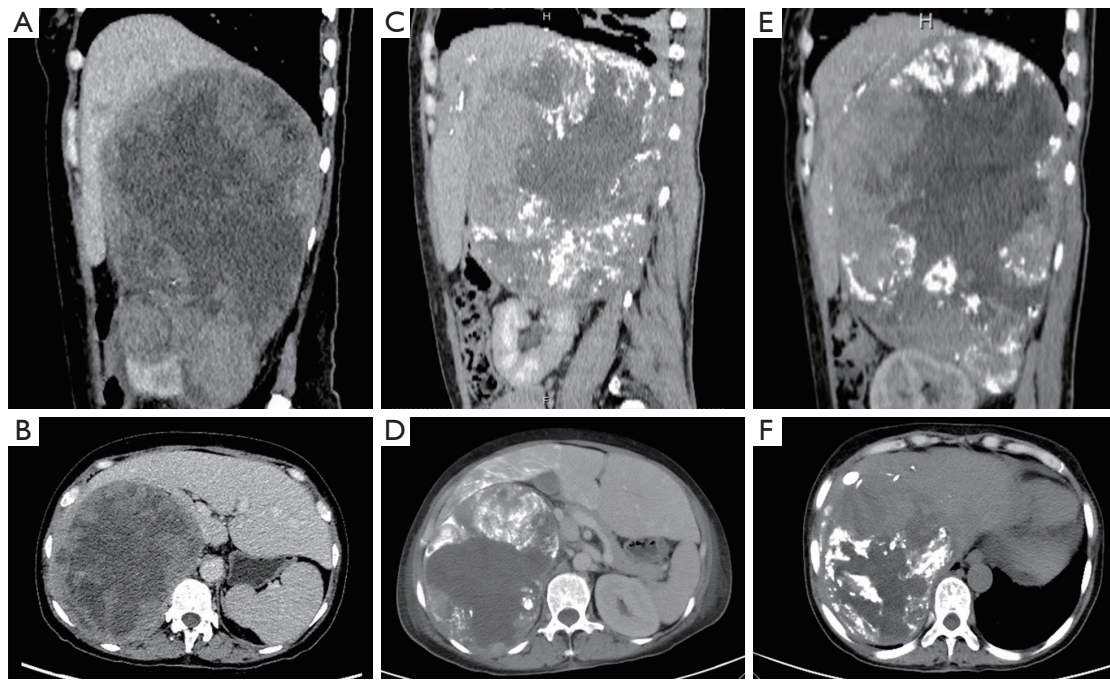


Figure 1 Abdominal CT showing the lesions in sagittal (A) and transversal (B) planes. Abdominal CT revealed lipiodol was deposited in the lesions in sagittal (C) and transversal (D) planes after TACE. Last follow-up abdominal CT revealed the deposition of lipiodol in the lesions in sagittal (E) and transversal (F) planes. CT, computed tomography; TACE, transcatheter arterial chemoembolization.

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Footnote

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