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# Intrahepatic fetus: unusual image of an intratumoural haemorrhage

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## DESCRIPTION

A 65-year-old man presented to our institution with acute onset, right upper quadrant pain, on a background of rheumatoid arthritis and asthma. He was a lifelong non-smoker, with minimal alcohol consumption and no intravenous drug use. CT and MRI demonstrated a large tumour involving the entire segment IV of the liver positioned between the middle and the left hepatic veins. A T1-weighted axial MRI at the level of right hepatic vein demonstrated an odd, fetus-like lesion within the mass (figure 1). Junior medical staff questioned whether this could be a primary hepatic pregnancy. However, they were reassured that this image portrayed an intraparenchymal bleed, consistent with hepatocellular carcinoma (HCC). A diagnosis of HCC was confirmed by non-invasive criteria for diagnosing HCC recommended by both the American Association for the Study of Liver Diseases and the European Association for the Study of the Liver consensus statement.<sup>1-3</sup> This consisted of a serum  $\alpha$ -fetoprotein level  $>200$  ng/mL and a typical enhancement pattern (arterial enhancement and portal/delayed washed out) on dynamic imaging of the mass in a mildly cirrhotic liver.<sup>1-3</sup>

This case demonstrated a rare cause of acute, right upper quadrant abdominal pain. Typically, differential diagnoses of acute right upper quadrant abdominal pain can be divided into biliary or hepatic causes. Biliary causes include biliary colic, acute cholecystitis, acute cholangitis or sphincter of Oddi dysfunction.<sup>4</sup> Hepatic causes include acute hepatitis, liver abscesses, Budd-Chiari syndrome and portal vein thrombosis.<sup>4</sup> Spontaneous hepatic haemorrhage is a rare condition.<sup>5</sup> In the setting of no anticoagulant therapy or apparent trauma, the cause can be due to underlying liver disease.<sup>5</sup> Ruptured HCC is an acute surgical

emergency associated with high mortality rate.<sup>5</sup> Diagnosis of a ruptured HCC can be difficult to diagnose as there are no specific symptoms.<sup>5</sup> Imaging is an integral component in the diagnosis and management of this potentially fatal condition. Diagnosis of a haemorrhagic HCC can be made when a hyperattenuating mass is seen at CT or when a mass with high-signal-intensity areas is seen at T1-weighted MRI.<sup>50</sup>

## Learning points

- ▶ Right upper quadrant pain may be a manifestation of a haemorrhagic hepatocellular carcinoma (HCC).
- ▶ Diagnosis of a haemorrhagic HCC can be made when a hyperattenuating mass is seen at CT or when a mass with high-signal-intensity areas is seen at T1-weighted MRI.

**Contributors** QR and LW collated information regarding the case. LW was the principle anaesthetist, VM was the principle surgeon, and MS was the principle radiologist involved in the management of the case. QR, MS, VM and LW contributed to writing the manuscript. All authors have read and approved the final manuscript.

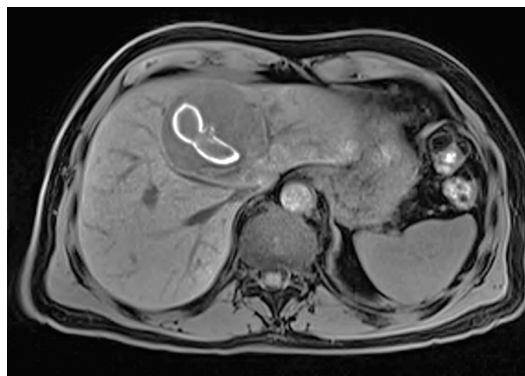
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**Patient consent** Obtained.

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**Figure 1** T1-weighted axial MRI at the level of right hepatic vein demonstrating mass with intratumoural haemorrhage.

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