Clear visualization of extravasation on angiography using carbon dioxide in a case of hepatocellular carcinoma rupture with unclear visualization using iodine contrast agent.

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Abstract
A 62-year-old woman with hepatocellular carcinoma (HCC) and asthma presented with acute abdominal pain and a decreased hemoglobin level. Peritoneal fluid was detected around the lesion, and rupture was suspected based on the findings of computed tomography. Extravasation of the HCC tumor was not detected on angiography with iodine contrast agent; however, such extravasation was clearly observed on angiography with carbon dioxide (CO2). CO2 angiography is sometimes utilized in patients with arterial bleeding. This modality be more effective and safe than angiography with iodine contrast agent for assessing potential ruptured HCC lesions.