SUPPLEMENTARY MATERIAL

The protocols of computed tomography (CT) and magnetic resonance imaging (MRI)

CT protocol

CT scans were performed with a 16-, 64- or 128-channel multidetector CT scanner (Somatom Sensation 16, Sensation 64, Definition flash, Siemens Medical Solutions, Forchhein, Germany; Lightspeed VCT, GE Medical Systems, Milwaukee, WI, USA; and Ingenuity, Philips Medical, Einthoven, the Netherlands). First, a pre-contrast CT scan was obtained before the administration of contrast media. Contrast media was injected by a power injector via the antecubital vein at a dose of 2 mL/kg over a period of 30 sec (up to a maximum 150 mL when patients weighed more than 75 kg), followed by a 20 mL saline chaser bolus injection. Using a bolus tracking technique, the late arterial phase was performed 18 sec after the attenuation increased 100 Hounsfield Units (HU) compared to the baseline at the abdominal aorta. The portal venous phase and delayed phase were obtained with a scan delay of 30 sec and 150 sec after the end of the previous phase, respectively.

MRI

Liver MRI was obtained using 3.0-T MR system (Discovery MR 750 3.0 T, GE Medical Systems, Milwaukee, WI, USA; Magnetom Trio 3.0 T, Siemens Medical Solutions, Forchhein, Germany and Ingenia 3.0 T, Philips Medical, Einthoven, the Netherlands). Our routine MRI protocol consisted of a breath-hold transverse T1-weighted in- and out-of-phase 2D gradient-echo (GRE) sequence, a breath-hold transverse 3D GRE (TR/TE, 2.5/0.9; flip angle, 13°; section thickness, 2 mm; no gap; acquisition time, 17 sec), a fat-saturated T2-weighted fast spin-echo, and a single-shot turbo spin-echo with spectral fat suppression technique. Contrast-enhanced MRI was obtained using a breath-hold 3D-GRE sequence after an IV bolus of 0.025 mmol/kg body weight of gadoxetic acid at an injection rate of 2 mL/s followed by a saline flush of 30 mL. Arterial phase images were acquired 7–8 sec after contrast media arrived at the distal thoracic aorta by using an MR fluoroscopic technique or test bolus technique. Portal venous and transitional phase images were obtained approximately 30–40 sec after the acquisition of the prior phase images. Hepatobiliary phase images were obtained 20 min after administration of contrast.

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