



Study Protocol

syngo DynaCT in multiple phases for HCC

Interventional Oncology

syngo DynaCT scanned in two phases would improve the diagnostic performance for HCC and has an advantage in the preoperative diagnosis.

Courtesy of

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Supported by

syngo DynaCT

System & Software

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Case Description

Patient history

A 69-year-old male with HCC (hepatocellular carcinoma) and HCV (Hepatitis C virus)-positive hepatic cirrhosis.

The HCC was treated by resection of the caudate lobe 9 years ago, segmentectomy of S6 2 years ago, and several RFA series. HCC recurrence was found by ultrasonography and dynamic contrast-enhanced CT scan during regular follow-up. Because of this recurrence, the patient was hospitalized for TACE treatment.

Diagnosis

Perfusion defect was found in both lobes of the liver using syngo DynaCT scanned in two phases. These sites also showed early enhancement and corona enhancement in the second phase using the syngo DynaCT scanned in two phases.

The patient was diagnosed with HCC multiple recurrence based on these evaluations.

Treatment

A microcatheter was selectively inserted into left and right hepatic arteries, and then TACE was performed using Lipiodolemulsion and Gelpart.

Customer comment

CT scan during hepatic arteriography for HCC shows both tumor stain in first phase and the corona enhancement in second phase (Radiology 1998 206:161-166. CVIR 2011 34:81-86). Thus this CT scan enables differentiation from an AP shunt which is also densely-stained in the first phase. syngo DynaCT scanned in two phases has an advantage in improvement of diagnostic performance for HCC because of its high spatial resolution and precise visualization of corona enhancement in second phase.

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Acquisition protocol	6sDSA DCT (manual mode)	
Injection protocol		
Catheter position	Common hepatic artery	
Contrast medium (CM)	300 mg iodine/mL	
Dilution (CM/Saline):	50 %	
Injection volume	32 mL	
Injection rate	2 mL/s	
Duration of injection	16 s	
X-ray delay	6s DSA DCT run with manual triggering 1st Phase: 10 s X-ray delay time 2nd Phase: 25 s delay time after the 1st run	
Power injector used	Yes	
Reconstructions	Primary	Secondary
Name	DynaCT Body NatMask HU Auto	DynaCT Body NatFill HU Auto
VOI size	Full	Full
Slice matrix	512 × 512	512 × 512
Kernel type	HU	HU
Image characteristics	Normal	Normal
Reconstruction mode	NatMask	NatFill
Viewing preset	DynaCT Body	DynaCT Body

Clinical Images



Figure 1: Axial MPR 3 mm



Figure 2: Coronal MPR 3 mm

Clinical Images



Figure 4: Axial MPR 3 mm

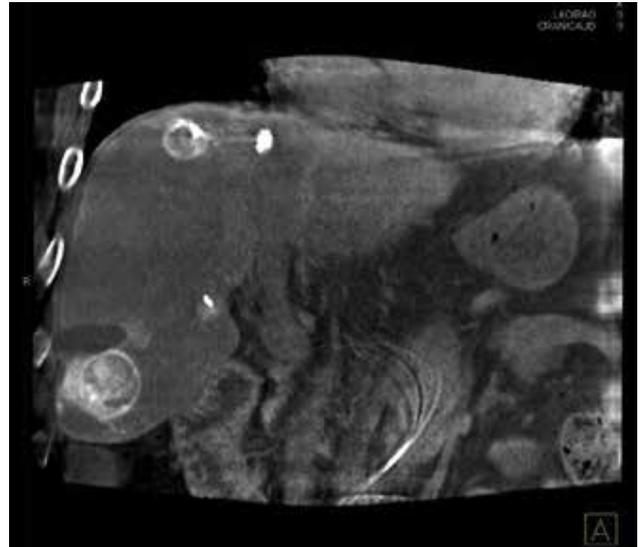


Figure 5: Coronal MPR 3 mm

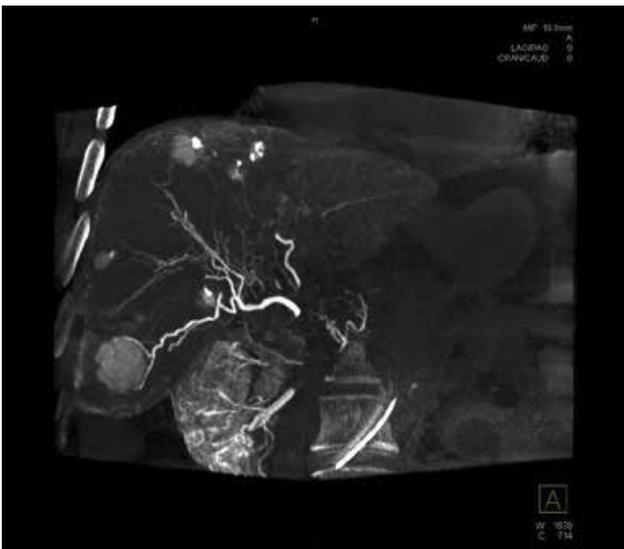


Figure 3: Coronal MIP 20 mm

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