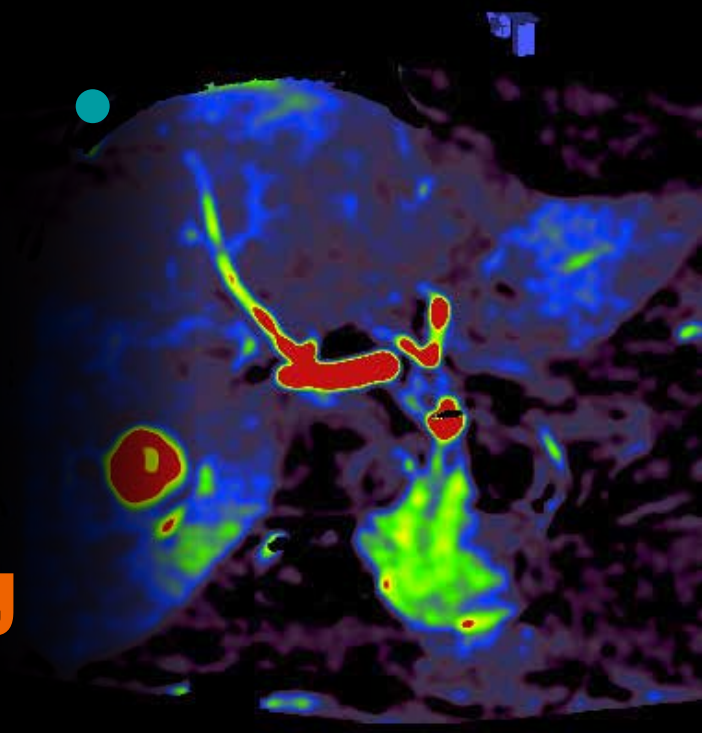
Study Protocol

Transarterial chemo-embolization of HCC using *syngo* DynaPBV Body

Interventional Oncology



The post-embolization *syngo* DynaPBV acquisition confirmed complete treatment by showing no contrast opacification within the tumor. The one-month follow-up four-phase CT liver imaging confirmed results indicated by *syngo* DynaPBV Body.

Courtesy of
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Supported by
syngo DynaPBV Body

System & Software
Artis Q ceiling VD10
syngo X Workplace VC10

Case Description

Patient history
51-year-old male with Hep C. Hepatocellular BCLC stage A carcinoma (HCC), which is not amenable to radiofrequency (RF) ablation due to its proximity to the gall bladder. Patient is awaiting liver transplant and recommended for TACE treatment.

Diagnosis
Pre-procedural four-phase CT of the liver measured a maximum of 3.5 cm in length of the segment V HCC lesion. The lesion demonstrated arterial hyperenhancement with portal venous and delayed phase washout centrally consistent with a HCC.

Treatment
Selective chemoembolization of the 3.5 cm segment V HCC was performed on the patient. Chemo-embolization was performed using 150 mg Doxorubicin adsorbed upon two vials of 100-300 µm DC Beads, followed by bland embolization using approximately 30 % of one vial of 500-700 µm Embosphere microspheres. The patient tolerated the procedure well and there were no immediate complications.

General comments
The pre-embolization *syngo* DynaPBV Body showed that the hypervascular tumor in the inferior right lobe derived supply from the segment V artery. Chemoembolization followed by bland embolization of the arterial supply was satisfactory with excellent angiographic response. The post-embolization PBV run confirmed complete treatment by showing no contrast opacification within the tumor.

Tips and tricks
Don't oversedate the patient as patient cooperation with breathing is very important. Arms should be put above the head during *syngo* DynaPBV Body acquisition.

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Transarterial chemoembolization of HCC using *syngo* DynaPBV Body

Acquisition protocol	**5s DynaPBV Body (automatic)**

Injection protocol	
Catheter position	Proper hepatic
Contrast medium (CM)	340 mg iodine/mL
Dilution (CM/Saline):	33 %
Injection volume	36 mL
Injection rate	3 mL/s
Duration of injection	12 s
X-ray delay	Manual CM injection started when C-arm finished mask run 7 s acquisition delay as C-arm returns for fill run
Power injector used	Yes

Reconstructions	**Primary**	**Secondary**
Name	DynaPBV Body Dual PBV	Reconstruct the Nat Fill run
VOI size	Large	Large
Slice matrix	512 × 512	512 × 512
Kernel type	HU	HU
Image characteristics	Smooth	Smooth
Reconstruction mode	Dual (Sub and Mask)	NatFill
Viewing preset	PBV Body	DynaCT Body

Clinical Images

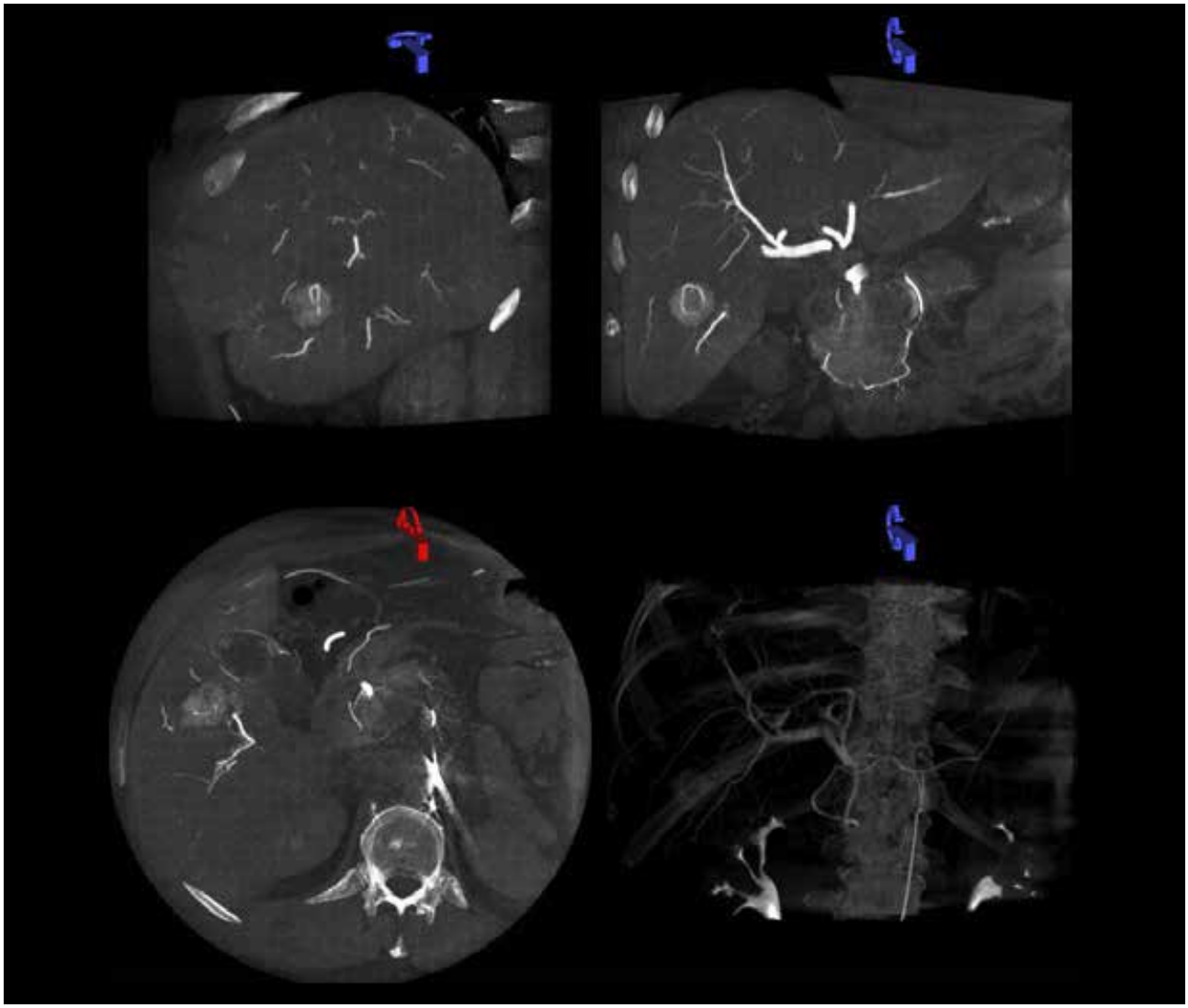

Figure 1: Secondary reconstruction of the fill run of the pre-procedural *syngo* DynaPBV Body run gives good visualization of vessel tree (esp. showing the looped tumor-feeding vessel)

Clinical Images

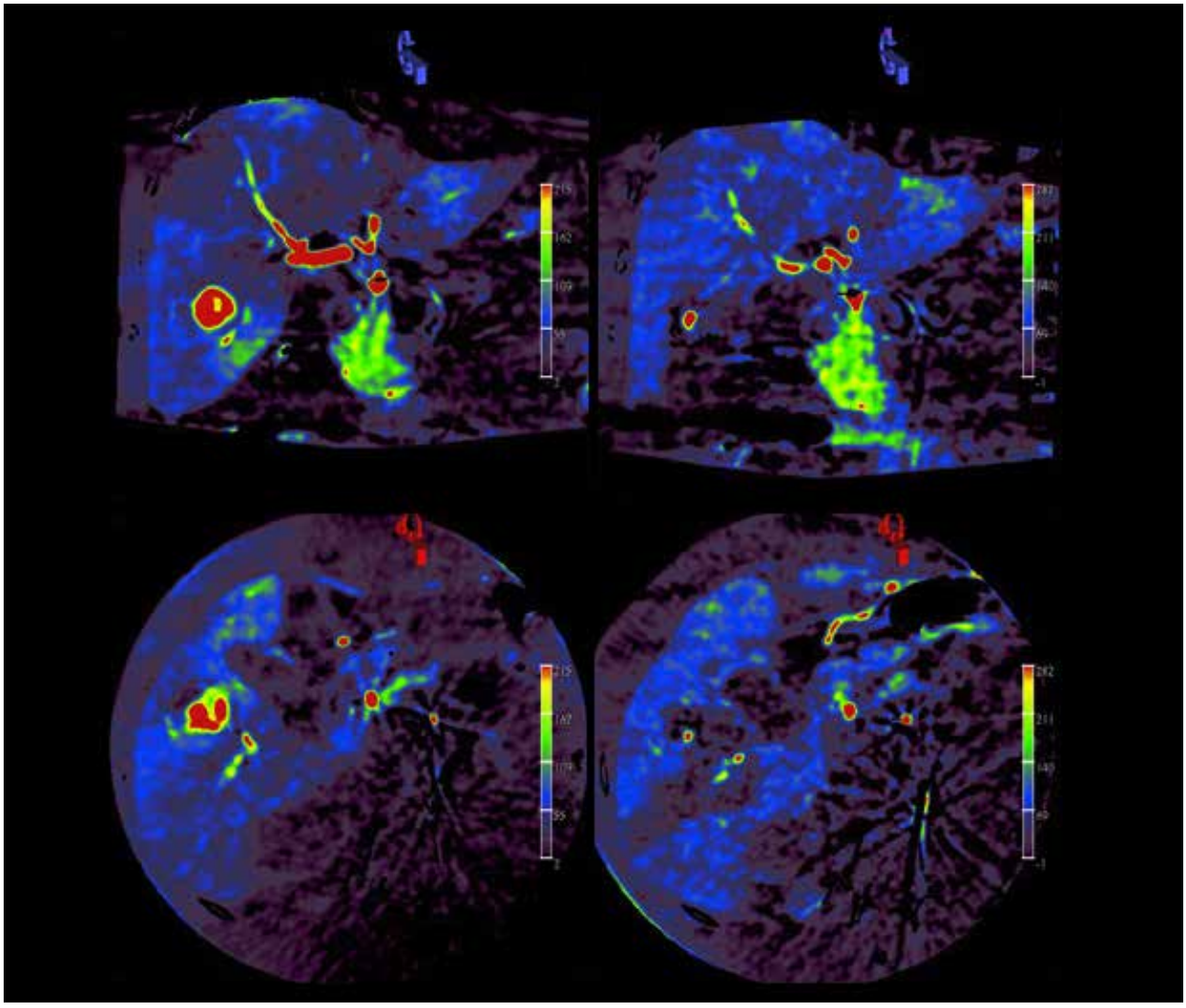

Figure 2: Pre- and post-embolization *syngo* DynaPBV imaging to confirm treatment success

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