

Artis Q – Study Protocol

Transarterial chemoembolization of HCC using *syngo* DynaPBV Body

Interventional Oncology

Supported by*

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- *syngo* Dyna3D

Courtesy of

Jeff McCann, M.D.,
Ronan Ryan, M.D.,
Department of Interventional
Radiology,
St. Vincent University Hospital,
Dublin, Ireland

System & Software

Artis Q ceiling VD10
syngo X Workplace VC10

**This list of applications is not complete. Not all applications available for all software versions.*

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. Chemoembolization 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.

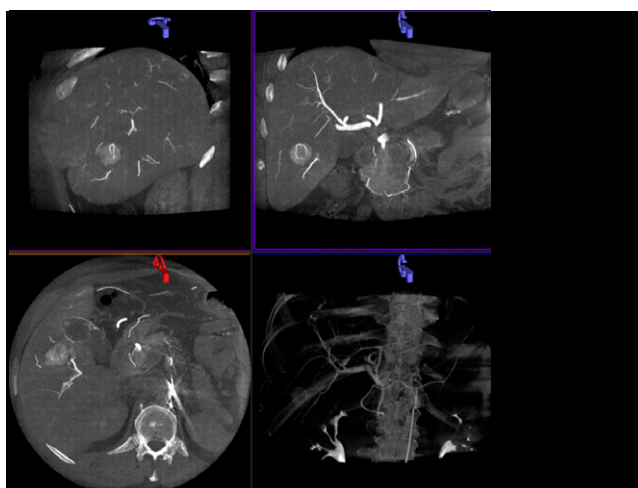
Tips and Tricks

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.

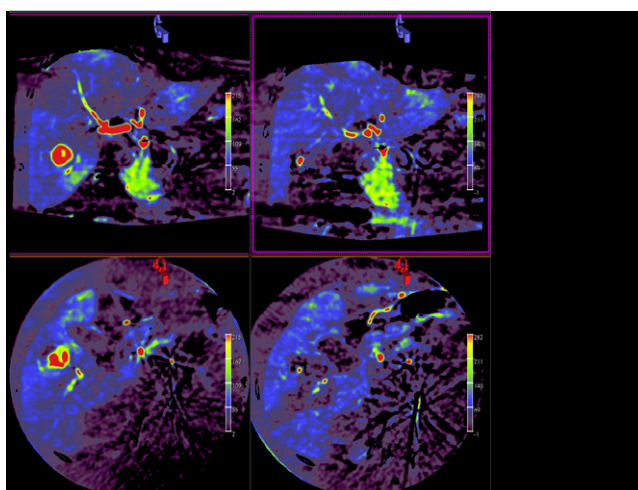
The post-embolization *syngo* DynaPBV acquisition confirmed complete treatment by showing no contrast opacification within the tumor. The one-month follow-up four-phase CT liver imaging confirmed results indicated by *syngo* DynaPBV Body.

Transarterial chemoembolization of HCC using syngo DynaPBV Body

Acquisition Protocol	5s DynaPBV Body (automatic)	Reconstruction Protocol	DynaPBV Body Dual PBV
		VOI Size:	Large
Injection Protocol		Slice Matrix:	512X512
Contrast Media (CM):	340 mg Iodine/ml	Kernel Type:	HU
Dilution:	33 %	Image Characteristics:	Smooth
Injection Volume (CM/Saline):	36 ml (12ml/24ml)	Reconstruction Mode:	Dual (Sub and Mask)
Power Injector Used:	Yes	Viewing Preset:	PBV Body
Injection Rate:	3 ml/s	Secondary Recon	Reconstruct the Nat Fill run
Duration of Injection:	12 s	VOI Size:	Large
X-ray Delay:	Manual CM injection started when C-arm finished mask run 7 s acquisition delay as C-arm returns for fill run	Slice Matrix:	512X512
Catheter Position:	Proper hepatic	Kernel Type:	HU
		Image Characteristics:	Smooth
		Reconstruction Mode:	Nat Fill
		Viewing Preset:	DynaCT Body



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).



Pre- and post-embolization *syngo* DynaPBV imaging to confirm treatment success.

The statements by Siemens' customers presented here are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption), there can be no guarantee that other customers will achieve the same results.

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Siemens Healthcare Headquarters

Siemens Healthcare GmbH
Henkestr. 127
91052 Erlangen
Germany
Phone: +49 9131 84-0
siemens.com/healthcare

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