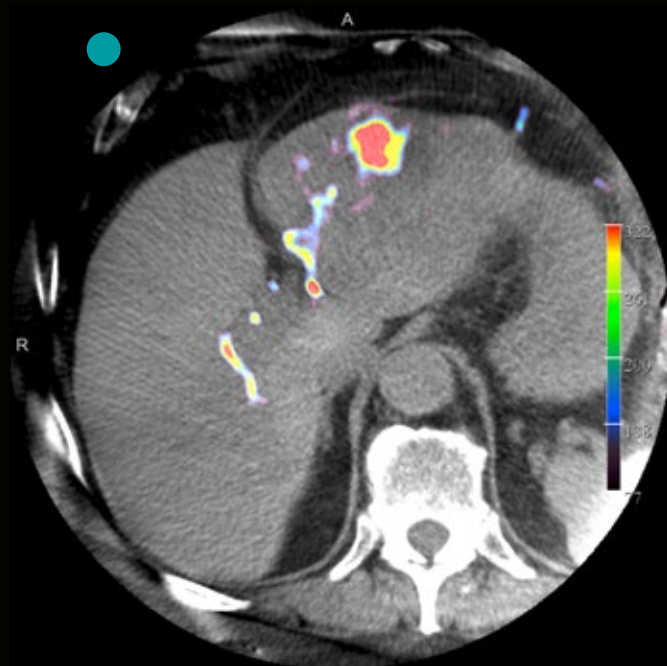


Study Protocol

Transarterial chemoembolization of a hepatocellular carcinoma in the liver



Case Description

Patient history

81-year-old male patient with a singular hepatocellular carcinoma in liver segment II/III, initially diagnosed in May 2021. Additionally, he has history of lung cancer and oropharynx carcinoma.

Diagnosis

No evidence of metastasis.

Treatment

First chemoembolization performed in June 2021.

Current retrograde puncture of the common femoral artery on the right side and insertion of a 4F sheath without complications. Probing of the coeliac trunk using 4F C2. Performance of *syngo* DynaPBV Body with detection of known tumor lesion in segment II/III. Identification of the tumor feeder. Superselective DEB TACE of the lesion with feeders from segment II and segment III (approximately 20 mg farmorubicin).

Another *syngo* DynaPBV scan was performed after the embolization. No evidence of residual tumor perfusion in final PBV map.

General comments

With the help of Dyna3D vessel map reconstructed from the *syngo* DynaPBV Body fill run, we can ensure the proper position of the catheter and identify the arterialized liver lesions/ tumor portions. It is helpful to identify all vessels supplying the tumor.

Comparing the PBV map before and after the embolization, we could assess the success of the embolization and predict a complete response with great confidence.

Tips and tricks

Proper breath-hold of the patient is crucial, explain the importance of this cooperation to the patient prior to the examination.

Courtesy of

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A. Estler, MD
Interventional Radiology
Department,
University Hospital Tübingen,
Germany

Supported by

syngo DynaPBV Body

System & Software

ARTIS icono floor VE2 with *syngo*
Applications Software VE2

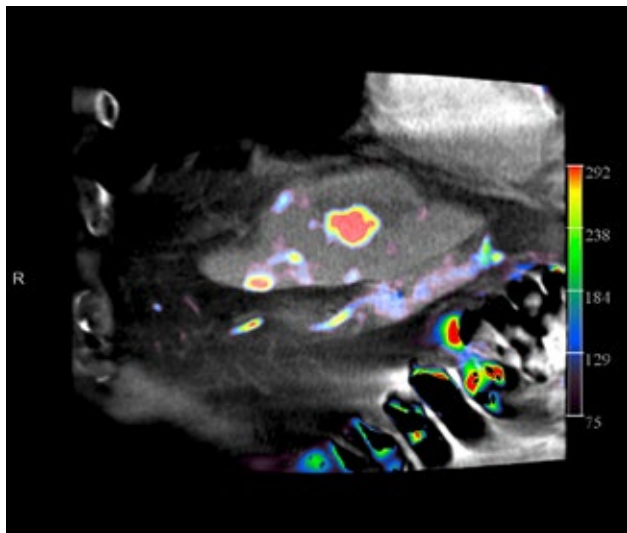
Acquisition protocol	4s DynaPBV Body – same for both runs, pre and post treatment
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Injection protocol	
Contrast medium (CM)	Iodine 370 mg/mL
Dilution	50%
Injection volume	10 mL
Power injector used	Yes
Injection rate	2.0 mL/s
Duration of injection	5s
X-ray delay	2s
Catheter position	Hepatic artery

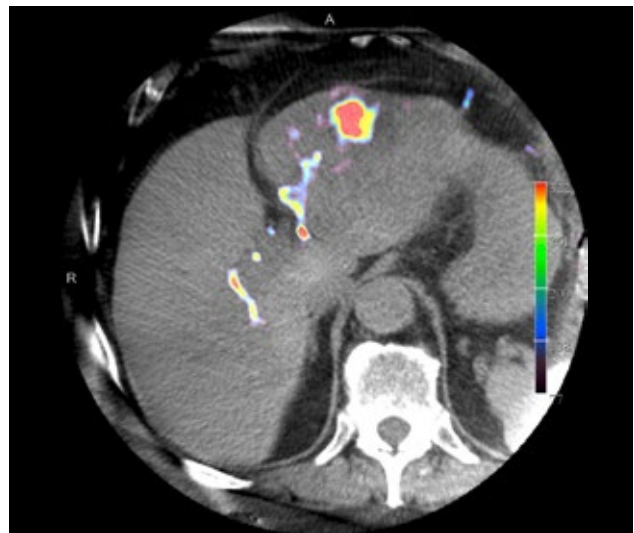
Reconstructions	Primary
Name	DynaPBV Body
VOI size	Full
Slice matrix	0.5 mm
Kernel type	HU
Image characteristics	Auto
Reconstruction mode	Nat Mask, Nat Fill, Sub
Viewing preset	PBV

Clinical Images

Figure 1



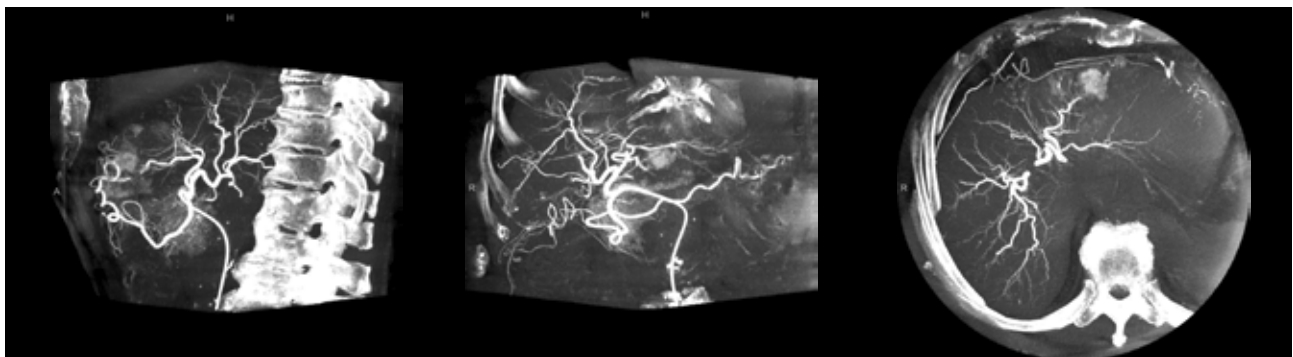
MPR Dual Volume frontal view



Transversal view

syngo DynaPBV visualization. Subtracted PBV reconstruction overlayed to reconstruction of the mask run before TACE.

Figure 2



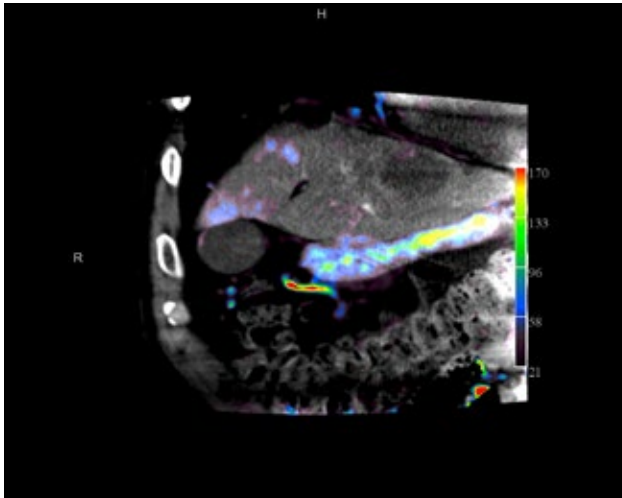
Thick MIP sagittal view

Frontal view

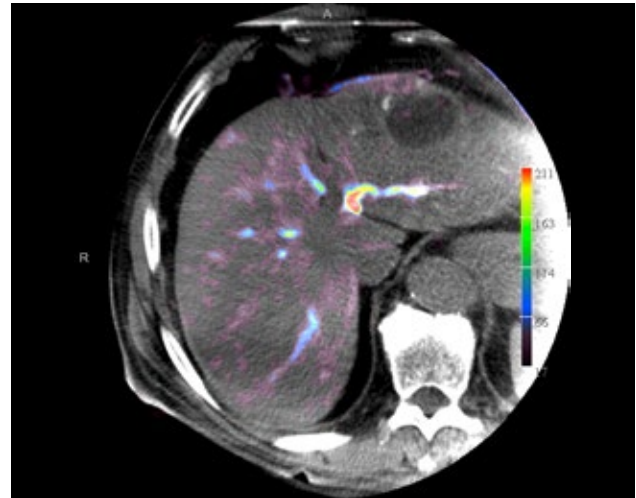
Transversal view

Reconstruction of the fill run of the *syngo* DynaPBV acquisition, visualizing the vessel map and feeding arteries to the HCC tumor.

Figure 3



MPR Dual Volume frontal view



Transversal view

syngo DynaPBV visualization. Subtracted reconstruction overlay to reconstruction of the mask run after TACE.

The statements by Siemens Healthineers 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.

The information presented in the case report is for illustration only and is not intended to be relied upon by the reader for instruction as to the practice of medicine. Any health care practitioner reading this information is reminded that they must use their own learning, training and expertise in dealing with their individual patients.

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