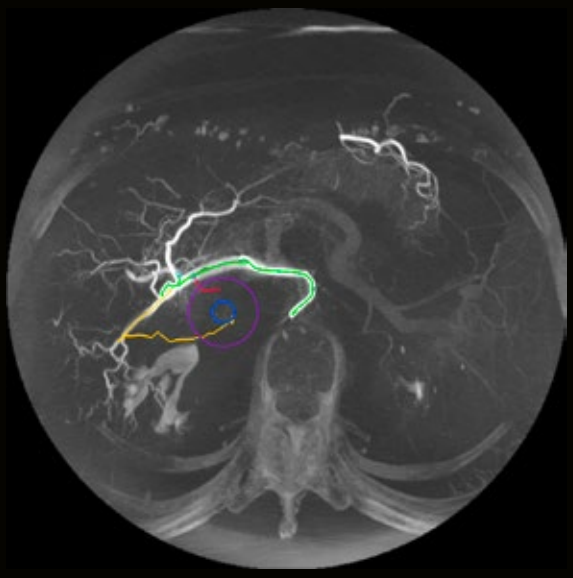
Study Protocol

# Transarterial chemoembolization of HCC

Oncology



## Case Description

**Patient history**
68-year-old female patient

**Diagnosis**
Hepatocellular cancer in liver segment 1. Surgery not possible due to heavy liver cirrhosis.

**Treatment**
First transarterial chemoembolization (TACE) with TANDEM particles loaded with doxorubicin.

**General comments**
A lesion in segment 1 is difficult to see in angiography, therefore *syngo* DynaCT is very helpful to visualize the lesion, as well as the feeding arteries. *syngo* Embolization Guidance was used. Simply marking the lesion allows the application to detect all feeding arteries of the tumor. It was then quite visible that the blood supply came from the right hepatic artery. The segmented vessels were overlaid onto live fluoro for better navigation of the microcatheter.

**Tips & Tricks**
For very high image quality of the *syngo* DynaCT acquisition, good patient cooperation and strict breath-hold are crucial.

**Statement**
*syngo* DynaCT is often very helpful for the detection of the lesion. *syngo* Embolization Guidance can help to detect the vessel supply, provides 3D overlay, and can support finding the optimal C-arm angulation.

**Courtesy of**
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Prof. Christian Loewe, MD;
Allgemeines Krankenhaus Wien – Medical University Vienna, Austria

**Supported by**
*syngo* Embolization Guidance
*syngo* DynaCT

**System & Software**
ARTIS icono biplane VE2 with *syngo* Application Software VE2

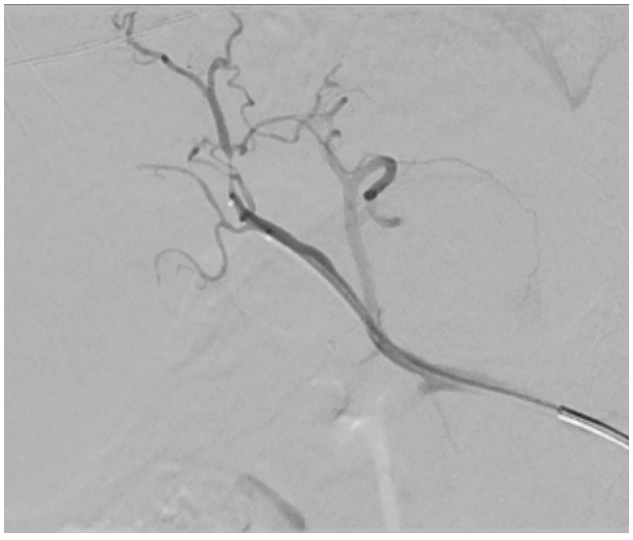
SIEMENS Healthineers

## Protocol

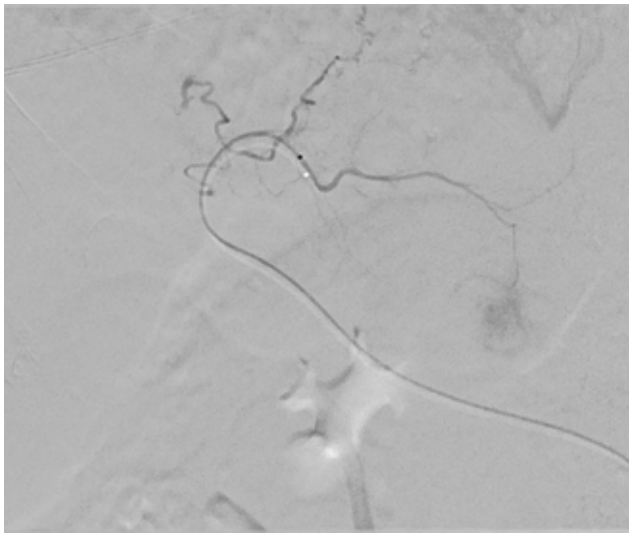
| **Acquisition protocol** | 5sDCT Body |
|---|---|
| **Injection protocol** | |
| Catheter position | common hepatic artery |
| Contrast medium (CM) | 300 mg/mL |
| Dilution | 50% |
| Injection volume | 44 mL |
| Injection rate | 4 mL/s |
| Duration of injection | 11 s |
| X-ray delay | 6 s |
| Power injector used | Yes |

| **Reconstruction** | **Primary** |
|---|---|
| Name | DCT Body Nat Fill |
| VOI size | Full |
| Slice matrix | 512 x 512 |
| Kernel type | HU |
| Image characteristics | Normal |
| Reconstruction mode | Nat Fill |
| Viewing preset | DynaCT Body |

## Clinical Images

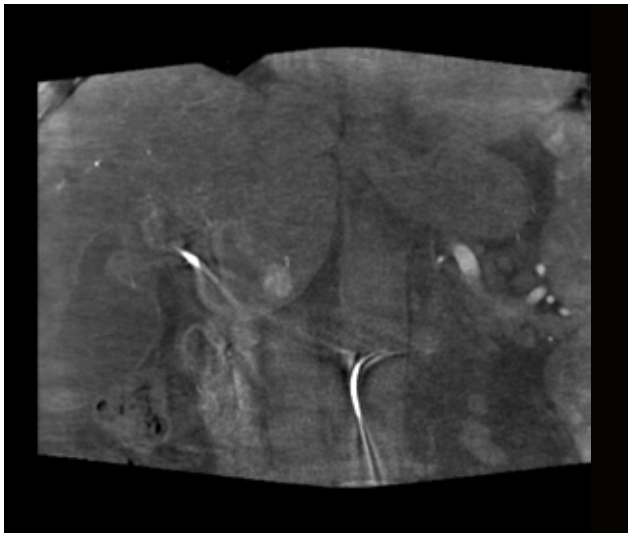


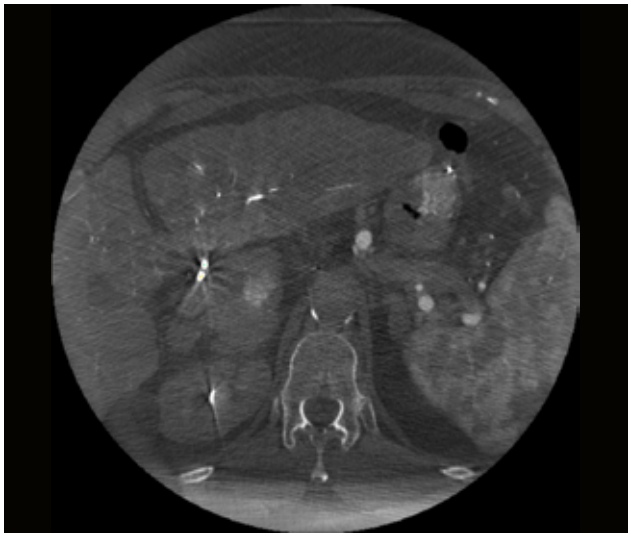
DSA image showing tiny vessel structure



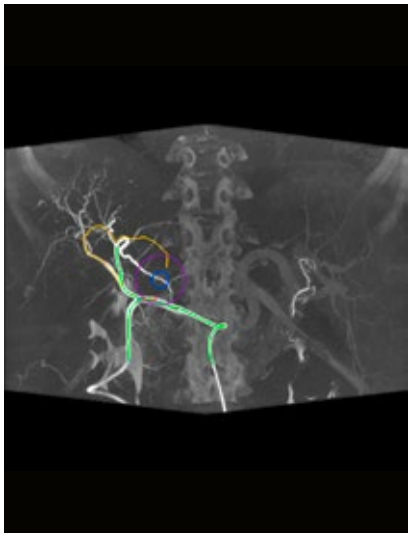
DSA image in treatment position

## Clinical Images

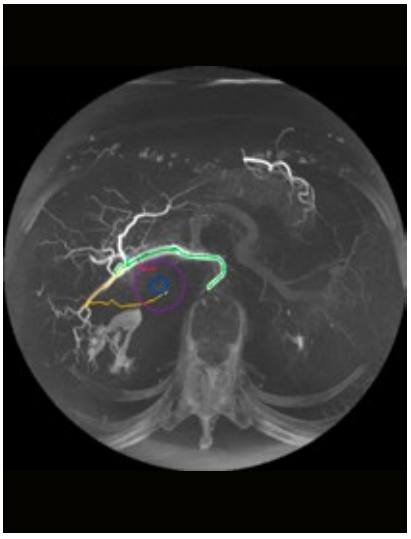




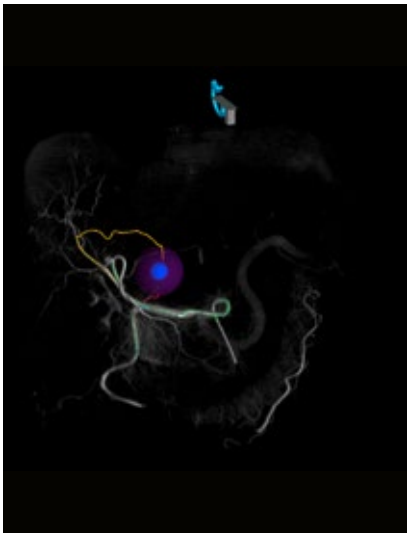
Thin MPRs – Showing hypervascularized lesion in liver segment 1



Thick MPR



Thick MPR



VRT

*syngo* Embolization Guidance segments feeding vessels to the lesion. Branching vessels can be added manually.

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