

QuiremSpheres® treatment of a 77-year-old male patient with hepatocellular carcinoma

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Location: University Hospital Dresden, Germany

PATIENT

A 77-year-old male patient with a history of hepatocellular carcinoma (HCC) was first diagnosed with large HCC in the right liver lobe (LL) without cirrhosis, and treated by embolization of the right portal vein and chemoembolization of the right LL. Follow-up after 18 months showed multifocal ($n > 10$) HCC in the remnant liver. Patient was in good shape (ECOG 0) and liver enzymes were in normal range.

TREATMENT PLANNING

Based on the health status and treatment history of the patient, the multidisciplinary tumor board decided to treat him with SIRT. During work-up, the patient showed no clinically significant lung shunting (0.17%). A dose of 60 Gy was planned on the remnant liver volume (1335 cc) with a 30% reduction on the calculated activity as a safety precaution, since the patient has no right LL.

TREATMENT

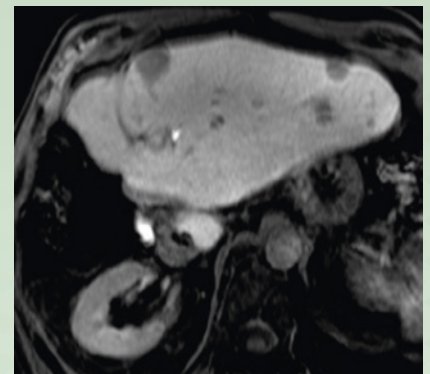
QuiremSpheres® microspheres with a total net activity of 3.2 GBq were injected via a microcatheter in the left hepatic artery.

TREATMENT VERIFICATION

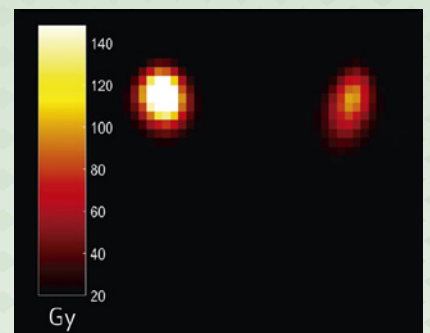
The distribution of microspheres was evaluated using SPECT and quantitative MR imaging in the days following the procedure. The images were converted into 3D dose distribution using Q-Suite™. The two targeted volumes shown in the images on the right received a mean dose of 150 Gy (left tumor) and 80 Gy (right tumor). The nontargeted liver volume received a mean dose of 21 Gy.

OUTCOME

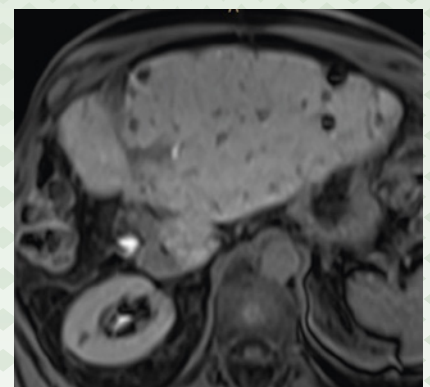
The treatment was well tolerated. At 4 months follow-up, excellent tumor response was seen on MR imaging.



Primovist® enhanced pre-treatment MRI



SPECT-based dose distribution



4 months follow-up post treatment anatomical MRI

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