

QuiremSpheres® treatment of a 64-year-old male patient with hepatic metastatic rectal carcinoma

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Location: University Hospital Dresden, Germany

PATIENT

A 64-year-old male patient with a history of metastatic colorectal cancer (mCRC) was diagnosed two years earlier and subsequently treated by resection of liver segments II and III and atypical resection of segment IVb. Systemic chemotherapy was given until few months before current diagnosis of multiple advanced unresectable liver metastases in the remnant liver. Blood test results were in normal range.

TREATMENT PLANNING

SIRT was approved by the multidisciplinary tumor board for further volume reduction of the liver metastases. Based on vascular anatomy angiography, coil occlusion of gastroduodenal artery was performed prior to the Tech-99m-MAA work-up procedure. Lung shunt was 2.3%. Tumor volume was 180cc. A dose of 60 Gy was planned on the remnant liver volume (1850cc). The calculated activity was reduced by 30% because of prior partial resection and chemotherapy.

TREATMENT

QuiremSpheres® microspheres with a total net activity of 4.8 GBq were injected via a microcatheter in the left hepatic artery.

TREATMENT VERIFICATION

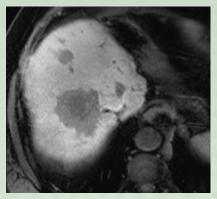
The distribution of microspheres was evaluated using SPECT and quantitative MR imaging in the days following the procedure. The images were converted into 3D dose distribution using Q-Suite $^{\rm m}$. The two targeted volumes shown in the images on the right received a mean dose of 76 Gy (upper tumor) and 53 Gy (lower tumor). The non-targeted liver volume received a dose of 24 Gy.

OUTCOME

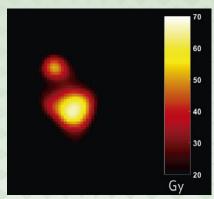
The treatment was well tolerated. At 5 months follow-up, excellent tumor response was seen on contrast enhanced CT.

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https://www.terumo-europe.com/en-emea/Treat-liver-cancer-with-Terumo-2018



Primovist® enhanced pre-treatment MRI



SPECT-based dose distribution



5 months follow-up contrast enhanced CT

PUSHING BOUNDARIES

