Y90 SIRT with Occlusafe Micro-Balloon Catheter infusion system in a patient with unresectable HCC: the right way

Physician: Giulio Eugenio Vallati MD
Location: Department of Radiology and Interventional Oncology, Regina Elena National Cancer Institute, Rome, Italy

CLINICAL CASE
A 67-years-old man with no history of liver disease presented with 4 months of abdominal pain and weight loss. Abdominal CT showed a large hepatic lesion in the left lobe (74 x 57 x 46 mm) with portal vein bifurcation invasion. The CT characteristics of this lesion were suggestive for HCC (diagnosis confirmed with biopsy). The nodule was suitable for SIRT treatment.

PROCEDURE
Through a right common femoral arterial access we performed celiac trunk catheterization (GLIDECA TH® Hydrophilic Coated Catheter Simmons 2 - Terumo, Japan). Angiography showed no vascular abnormalities, with vascular supply to the lesion through the left hepatic artery. The first session of treatment ended with embolization of the upper gastro-duodenal artery with coils. The second session of treatment started with catheterization of common hepatic artery and super-selective catheterization of the left hepatic artery with Radiofocus® Guidewire GT and Occlusafe® micro-balloon catheter (Terumo, Japan). After Occlusafe® balloon inflation we performed SIRT treatment with injection of Y90-microspheres.

FOLLOW UP/ CONCLUSION
A SPECT-CT was performed soon after SIRT and confirmed the expected distribution of Y90-microspheres and the absence of non-target uptake. The Abdominal CT performed 3 months after treatment documented a tumor necrosis estimated to comprise more than 70% of initial tumor lesion.

PRODUCTS USED
Glidecath® Hydrophilic Simmons 2, Guidewire® M 0.035”, Occlusafe® micro-baloon catheter; Guidewire® GT wire 0.014”; SIRT with Sir-Spheres® (1.8 GBq (SIRTEX, Australia)).

CT before treatment documented a large and infiltrative hepatic mass in the left lobe with portal vein and biliary segmentary bile ducts invasion.

Y90-spheres infusion after upper gastro-duodenal artery embolization and inflation of Occlusafe micro-balloon catheter.

On the left: exam after treatment with a good spread of Y90-spheres in the lesion, without non-target uptake. On the right: good response CT at 3 months after treatment.