

## Hepatocarcinoma Therapy with Lipiodol-I<sup>131</sup> and SPECT/CT Imaging Control: Case Report

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**Aim:** To report a case of a patient with hepatocarcinoma submitted to intra-arterial therapy with lipiodol-I<sup>131</sup> and posterior SPECT/CT imaging control.

**Methods and Results:** Male patient, 67 years, cirrhotic, recently presenting plaquetopeny. An abdominal ultrasonography revealed hepatic nodules in the segments II and V. The tumoral markers were normal, with exception of CA 19.9, that was slightly increased. One hepatic scintigraphy with labeled red blood cells excluded the presence of hemangiomas. A multislice abdominal CT depicted one heterogenous lesion involving the segments IV<sub>A</sub> and IV<sub>B</sub>, 102 x 72 mm, suggesting an hepatocarcinoma, besides other aspecific lesions. The CT guided biopsy specimen revealed morphology and immunohistochemistry characteristics that confirmed the diagnosis of hepatocarcinoma. As the surgery was not indicated (due to the lesion diameter), embolization with lipiodol-<sup>131</sup>I was considered. A scintigraphy with MAA-<sup>99m</sup>Tc was performed to exclude the possibility of an hepato-pulmonar shunt (contraindication for the procedure). The embolization was proceed through cateterization of the hepatic artery branch responsible for the lesion vascularization, followed by infusion of mitomicin D and 60 mCi of lipiodol-<sup>131</sup>I. The patient remained at the hospital, in a therapeutic room, during 4 days, in the 4<sup>th</sup> day was submitted to a multislice abdominal CT and in the 5<sup>th</sup> to a scintigraphic control. Besides whole body images, a liver SPECT before and after the administration of 10 mCi of fitate-<sup>99m</sup>Tc was performed and the last CT revealed a reduction of the tumoral volume (70 x 54 mm).

The SPECT images were fused to the multislice CT ones using a fusion software (Xeleris, GE, Milwaukee, USA) and revealed a focal concentration of the lipiodol-<sup>131</sup>I on the topography of the hepatic lesion depicted by the CT. The patient was clinically stable in the 03 months follow-up after the procedure.

**Conclusions :** The intra-arterial therapy with lipiodol-<sup>131</sup>I and mitomicin D contributed for a good clinical follow-up of the patient and reduction of the lesion volume. Imaging fusion (SPECT/CT) can provide a precise evaluation of the area submitted to embolization.