Title:
Glass microsphere, observed consequences at tumor capillary bed in a perprocedural manner by Dual-Phase CBCT (DPCBCT) technique.

Abstract:
Purpose:
Since Radioembolization start, existing embolic effect by glass microsphere is controversial. Because DPCBCT is a multi-phasic scans using only one injection of contrast media in per procedural manner with high contrast resolution, this technique is able to show early and delayed tumor enhancement. The purpose of this study is to depict tumor enhancement change before and after radioembolization at early and delayed DPCBCT phase.

Material & method:
14 patients were referred to radioembolization, all underwent DPCBCT (Allura Xper, Philips Healthcare, Best, The Netherlands) imaging prior to and immediately after radio-sphere injection. In retrospective manner tumor attenuation were measured at each DPCBCT phase.

Results:
72 tumors were evaluated, average tumor attenuation at the early arterial phase are respectively 20340.7 and 20158.2 UA p<0.001 before and after radioembolization; and average tumor attenuation at delayed arterial phase are respectively 20091.4 and 19040.7 UA p > 0.001 before and after radioembolization. Average difference in tumor attenuation before and after
radioembolisation are respectively at early arterial and delayed phase 182.5 UA and 1050.6 UA \( p<0.001 \).

**Conclusion:**
Observed results are in favor of a major microembolic effect at tumor capillary bed associate with small macro-embolic effect.