

Percutaneous ablation of obscure hypovascular liver tumours in challenging locations using arterial CT-portography guidance

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Retrospective study to evaluate the feasibility, safety & efficacy of percutaneous ablation (PA) of obscure hypovascular liver tumors in challenging locations using arterial CT-portography guidance.

Results:

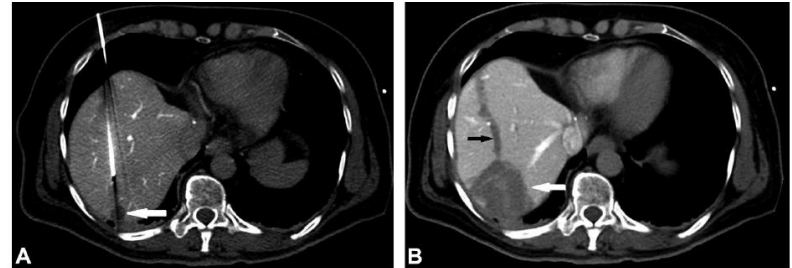
- ❑ No puncture-related complication was noticed.
- ❑ Excellent oncological results were observed since only 7% of LTP was reported after a long follow-up (median, 20 months).
- ❑ Radiation exposure resulting from SMA catheterism was negligible as compared to CT-induced radiation. CT was responsible from 98% of total effective dose.

....arterial CT-portography, as a guidance tool, was first proposed by van Tilborg et al.... In their study, the patient needed to be transported from the angio-suite to the CT-suite, thereby limiting a widespread use. The recent availability of angio-CT suites is an excellent opportunity to incorporate this technique in daily clinical practice for obscure liver tumors, especially when a careful needle placement is required.

....In conclusion, arterial CT-portography guidance in a multi-modal suite is feasible and allows effective percutaneous ablation of obscure hypovascular liver tumors in challenging locations without significant impact on the renal function and with acceptable radiation exposure.

Radiation exposure during procedures (Effective dose (mSv))

CT	2D angiography	Total
25.9 ± 8.2	0.27 ± 0.13	26.5 ± 8.2
(98%)		



Background information for "Percutaneous ablation of obscure hypovascular liver tumours in challenging locations using arterial CT-portography guidance"

When perform ablation on liver tumor which is not visible with echo, tagging of tumor is useful technique. For hypervascular tumor, lipiodol tagging is good way. However, it doesn't work for Hypovascular tumor. In such case, CT portography using AngioCT is available.

Like this, one of great advantages of using AngioCT is that it enable "catheter-directed angiography". That is, with AngioCT, you can manipulate GW & catheter using angiographic machine, then perform CT selectively injecting contrast medium using the catheter (in this case, via SMA).

This paper simply describes usefulness of AngioCT. Dr. Guiu spoke about this technique at CIRSE 2022 Canon symposium, and below is screenshot of his slide. You can check the presentation from CIRSE archive here (<https://library.cirse.org/cirse2022/crs/1903-1-4dct-for-liver-interventions-still-looking-for-the-limits>). You need to create free mySIRSE account to see the movie.

