Percutaneous navigated microwave ablation for malignant liver lesions

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Introduction:

Thermal ablation of liver tumor has proven beneficial for hepatocellular carcinoma and, within clinical trials, for colorectal liver metastases. This treatment could also be an interesting option for other secondary liver malignancies. In addition, computer-assisted navigation techniques have been introduced to increase efficacy and broaden the indications for this minimally invasive approach. The aim of our study was to evaluate short-term clinical outcome of patients undergoing percutaneous stereotactic image-guided microwave ablation (SIMWA) for non colorectal liver metastases (NCRLM).

Methods:

Retrospective study including all patients undergoing SIMWA for NCRLM liver metastases in our institution between January 2015 and December 2017. The indication for SIMWA was determined according to a multidisciplinary tumorboard decision. Follow-up in our outpatients department consisted of 3-monthly clinical and radiological (CT scan or MRI) check-ups. End-points included local recurrence rate, overall and liver-specific disease progression and post-interventional complications.

Results:

23 patients were included in this study, the majority being men (56.5%), and with a mean age of 58.4 years. Twenty-five interventions were performed for 40 lesions in the given time period. These included 17 neuroendocrine tumor, nine breast cancer, four sarcoma, two non-small cell lung cancer, three duodenal adenocarcinoma, one esophageal adenocarcinoma, one pancreatic adenocarcinoma, one ampullary carcinoma, one prostate carcinoma, and one renal cell carcinoma metastases. Incomplete ablation rate was 2.5% (1/40) and local recurrence rate was 10% (4/40). Three patients (12%) presented with complications, all of them minor. Median follow-up was 15 months (range 2-32). Overall disease progression occurred in 73.9% of patients with a median disease-free survival of 7 months (range 0-26). Overall survival was 18 months (range 2-39).

Conclusion:

SIMWA is a technically feasible, safe and minimally invasive treatment option for liver metastases of non-colorectal origin in selected patients. While it might offer an alternative to resection or a purely palliative strategy, the overall oncological benefit and effect on survival needs to be evaluated in a larger patient cohort.

Dear Sir or Madam,

I would like to submit our abstract, titled *Percutaneous navigated microwave ablation for malignant liver lesions*, to the AMIOS congress on the 25 and 26th October 2018.

I am at your disposition should any additional information be needed.

Thank you for your time and your consideration of our abstract,

Kind regards

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