



Title	A Systematic Review of Radiofrequency Ablation for the Treatment of Liver Tumors
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Aim

To compare the safety and efficacy of radiofrequency ablation for primary hepatocellular carcinoma or metastatic colorectal liver carcinoma, in comparison to other surgical (resection or hepatic artery infusion chemotherapy) and nonsurgical (percutaneous ethanol injection, cryotherapy, microwave coagulation therapy or laser-induced thermotherapy) therapeutic techniques, on the basis of a systematic assessment of the literature.

Conclusions and results

The evidence was limited by small sample size, short followup times, and a lack of comparability between the outcome measures. Despite the limitations of the data, RFA generally resulted in larger and more complete areas of ablation and may also be associated with higher survival rates compared to the other ablative techniques assessed in this review. Surgical resection was associated with a lower rate of recurrence and an increased time interval to recurrence compared to RFA. However, these two procedures are usually performed on different patient groups, with RFA being performed on patients who are unable to undergo surgical resection.

Evidence Rating – Average.

Safety – At least as safe compared to comparator procedure(s).

Efficacy – Efficacy cannot be determined.

Recommendations

It was recommended that surgeons practicing radiofrequency ablation for primary hepatocellular carcinoma or metastatic colorectal liver carcinoma should participate in an audit of their outcomes of RFA, preferably at a national level.

Methods

Studies were identified by searching MEDLINE, PREMEDLINE, PREMEDLINE and MEDLINE, EMBASE, Current Contents, Cochrane Library, Science Citation Index, from inception to week 18 in 2002. Clinical Trials Database (US), NHS Centre for Research and Dissemination (UK), NHS Health Technology Assessment (UK), National Research Register (UK), EORTC Protocols Database, National of Institute Health (US), and CancerLit (US) were searched on 18/4/2002. This was supplemented by hand-searching recent conference proceedings from specialist societies and conducting Internet searches. Additional articles were identified through the reference sections of the studies retrieved. Randomized controlled trials, quasi-randomized controlled trials and non-randomized comparative studies assessing patients treated with RFA and either one or more other comparative invention/s were included for review.