Radiofrequency ablation of liver tumours (update and re-appraisal): a systematic review.

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Record Status
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Citation

Authors' objectives
The aim of this review was to update the original ASERNIP-S systematic review on Radiofrequency Ablation for Liver Tumours, October 2002. This review was initiated in order to assess new studies examining the safety and efficacy of radiofrequency ablation (RFA) for primary hepatocellular carcinoma or metastatic colorectal liver carcinoma, in comparison to other surgical and non-surgical therapeutic techniques, on the basis of a systematic assessment of the literature. The surgical comparative techniques included resection or hepatic artery infusion chemotherapy. The non-surgical comparative interventions included local ablative therapies such as percutaneous ethanol injection (PEI); cryotherapy; or procedures that produce local heat such as microwave coagulation therapy (MCT) or laser-induced thermotherapy (LITT).

Authors' conclusions
On the basis of the evidence presented in this systematic review, the ASERNIP-S Review Group agreed on the following classifications and recommendations concerning the safety and efficacy of radiofrequency ablation for the treatment of liver tumours:

Evidence rating The evidence-base in this review is rated as average.

Safety The treatment of radiofrequency ablation for liver tumours is at least as safe as other treatments.

Efficacy From the data included in this systematic review the efficacy of RFA cannot be determined in relation to other ablation techniques.

Clinical and research recommendations More information is required to conclusively determine the advantages and disadvantages of radiofrequency ablation for primary hepatocellular carcinoma or metastatic colorectal liver carcinoma over other ablative treatment techniques. Further studies are also necessary to compare the safety and efficacy of percutaneous, laparoscopic and open approaches to radiofrequency ablation. The relationship of patient safety and efficacy outcomes and tumour size also requires additional research. Lastly, it is recommended that, through the increasing use of health informatics, cancer registries incorporate data items designed to gather information on treatment outcomes of ablative techniques for both hepatocellular carcinoma and metastatic colorectal liver carcinoma.

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