

# Radiofrequency treatment better than ethanol injection for small liver tumors

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A new review of four randomized controlled trials that directly compared two different treatments for small inoperable liver tumors has found that radiofrequency ablation (RFA) significantly improves patient survival compared to the standard therapy of percutaneous ethanol injection (PEI). These findings are in the February issue of *Hepatology*, a journal published by John Wiley & Sons on behalf of the American Association for the Study of Liver Diseases (AASLD).

AASLD guidelines recommend PEI as a safe and highly effective treatment for small hepatocellular carcinomas and say it is the standard against which new therapies should be compared. RFA is one of a handful of alternative nonsurgical treatments for small liver tumors. It has a higher rate of adverse events and is not always usable depending on the location of the tumor, however, some studies have suggested it offers a greater survival benefit compared to PEI.

To determine the benefit of RFA compared to PEI, researchers led by Yun Ku Cho of Seoul conducted a systematic review and meta-analysis of randomized controlled trials that compared the two therapies. Using databases and manual searches, they identified all relevant, peer-reviewed studies published from 1978 through July 2008. Ultimately, only four studies, which included a total of 652 patients, contained enough information for a meta-analysis of three-year overall survival.

"Most randomized controlled trials identified definite survival benefit favoring RFA compared to PEI except the latest trial published in 2008,"

the authors note. Their meta-analysis also detected a significant improvement in three-year survival for patients who'd undergone RFA.

"The additional survival benefit of RFA can be attributed to improved local tumor response of RFA, which in turn can be explained by the fact that more predictable tumor ablation was possible," the authors suggest. While injected ethanol might be stopped by the liver's fibrous septum or by satellite nodules, the heat from the radiofrequency electrode tip is distributed more homogenously.

The article is also available online at Wiley Interscience ([www.interscience.wiley.com](http://www.interscience.wiley.com)).

Source: Wiley

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