

Assessing response to Transarterial Embolisation for HCC: A comparison of RECIST, EASL and AFP criteria

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Acute devascularisation of hepatocellular carcinoma (HCC) following transarterial embolisation (TAE) may cause significant tumour necrosis which is not reflected in a reduction in tumour size. Therefore standard response criteria as defined by RESIST may not be appropriate for assessing response and EASL have proposed alternative criteria in which the percentage of tumour necrosis is estimated on enhanced CT or MRI.

We compared the response rates and concordance of the RECIST, EASL and fall in AFP in 19 patients undergoing TAE for HCC. All patients had contrast CT or MRI within 4 weeks of starting treatment and a follow-up scan least 8 weeks after the first embolisation. According to EASL a CR is defined as the disappearance of all enhancement, PR as a 50% reduction and PD a 25% increase. SD was reported for those between PD and PR. For AFP, a return of AFP to normal was a CR, a 50% reduction was PR, a 50% increase a PD and SD was between PR and PD. The response rates were as follows; By RECIST, PR-2, SD-13, PD-2, NA (not assessable)-2; By EASL CR-8, PR-7, SD-1, PD-1, NA-2 and by AFP CR-3, PR-6, SD-3, PD-1, NA-6. According to EASL 15 patients attained a PR or CR. Of these only 2 were classified as such by RECIST and 7 by AFP.

There is therefore clear discordance and it is important that these criteria are independently correlated with clinical outcome in order to define the most appropriate criteria for future studies.