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## Evaluation of early treatment response using dynamic MRI of drug-eluting beads transarterial chemoembolization for hepatocellular carcinoma

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**Purpose:** The purpose of this study is to evaluate the early treatment response of drug-eluting beads transarterial chemoembolization (DEB-TACE) for hepatocellular carcinoma (HCC) using dynamic MRI.

**Method:** A total of 16 cases (28 nodules) receiving DEB-TACE were included in this study. All patients underwent DEB-TACE and they received both dynamic MRI and CT within one week after treatment. RECICL (the response evaluation criteria in cancer of the liver) was used to assess local tumor response for HCC. We also evaluated the correlation the recurrence and the following three MRI findings after treatment; low intensity in T1-WI, low intensity in DWI and dual structure in T2-WI.

**Results:** TACE success rate (TE 3 and 4) were 78.6% using CT and 71.4% using MRI. Early recurrence rate of TE 2/3/4 were 100/38/50% (CT) and 100/44/36% (MRI), respectively. Recurrence rate were 38/91% in low or non-low intensity in T1-WI, and 29/100/75% in low, high or hetero intensity in DWI, respectively. Recurrence rate were 0/90% in dual or non-dual structure in T2-WI after treatment.

**Conclusion:** Assessment of treatment response of DEB-TACE using dynamic MRI was tend to superior to dynamic CT in respect of diagnosis for early recurrence. MRI also provided other useful findings in addition to hemodynamic change.

### Biography

Kuniaki Arai is a Clinical Hepatologist at Kanazawa University, Japan. He has major research interests in diagnosis and treatment of liver disease, especially hepatocellular carcinoma and viral hepatitis. He has 15 years of experience working with radiofrequency ablation for liver tumors and has done around thousand treatments using RFA. He also has experience of over 30 clinical trials regarding hepatocellular carcinoma and viral hepatitis as an investigator. He is an advisory member of clinical practice guideline for hepatocellular carcinoma, published by the Japan Society of Hepatology, in all versions in 2005.

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