

# Late gadolinium enhancement by cardiovascular magnetic resonance provides prognostic information in symptomatic alcoholic cardiomyopathy

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## Background

Previous studies have demonstrated that late gadolinium enhancement (LGE) on cardiovascular magnetic resonance (CMR) predicted independently cardiac adverse outcomes in dilated cardiomyopathy (DCM). ACM patients did not have a better outcome than DCM and prognosis was poorer after development of heart failure. There is no report about the association between alcoholic cardiomyopathy (ACM) outcomes and LGE.

## Methods

70 consecutive ACM patients from July 2008 to December 2010 were examined with LGE during CMR. The mean follow-up time was  $42.3 \pm 17.5$  months after CMR. Cardiac events include cardiac death, implantable cardioverter-defibrillator (ICD) discharge, hospitalisation for decompensated congestive heart failure (CHF) and heart transplantation.

## Results

Of the 70 patients, myocardial fibrosis visualized by LGE was detected in 24 (34.3%) patients. During the follow-up period, most events ( $n=9$ ) were related to hospitalisation for decompensated CHF in the total 13 cardiac events. The incidence of cardiac events was significantly higher in patients with LGE than that without LGE (37.5% vs. 8.7%,  $P=0.003$ ). When entered into multivariate Cox regression analysis, the presence of LGE yields hazard ratio (HR) of 4.62 (95% CI, 1.4 to 15.4) for cardiac events ( $P=0.007$ ), the extent of LGE also retains its independent predictive value

in LGE (+) patients with HR of 1.13 (95% CI, 1.04 to 1.22,  $P=0.003$ ).

## Conclusions

In patients with symptomatic ACM, the presence of LGE determined by CMR is a strong independent predictor of adverse cardiac events.

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