

POSTER PRESENTATION

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# Prognostic value of late enhancement in cardiac magnetic resonance in patients with dilated cardiomyopathy: a meta-analysis

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## Background

To systematically review the prognostic value of late gadolinium enhancement (LGE) at cardiac magnetic resonance (CMR) in patients with dilated cardiomyopathy (DCM).

## Methods

A literature search was performed on Medline and Embase for original articles estimating the LGE prognostic value in patients with DCM. Original articles had to assess mortality for cardiac and non-cardiac causes, sudden cardiac death, sudden death avoided, and hospitalization for cardiac failure. Heterogeneity ( $I^2$ ) was evaluated using the Cochrane Q statistics: P-value <0.100 were considered significant. Pooled odd ratio (OR) and 95% confidence interval (CI: 95%) were calculated using Comprehensive Meta-Analysis.

## Results

Out of 691 articles initially retrieved, 6 prospective clinical trials were selected for a total of 1,017 patients. All analyzed studies were performed using a 1.5-T MR unit. LGE was positively correlated with all considered clinical outcomes. Pooled mortality for all causes showed  $I^2=33\%$   $p = 0.202$  and OR=2.6 (95%CI 1.7-4.0;  $p<0.001$ ); hospitalization for cardiac failure showed  $I^2=24\%$  ( $p=0.257$ ) and OR=2.7 (95%CI 1.8-4.1;  $p<0.001$ ); sudden cardiac death showed  $I^2=0\%$  ( $p=0.895$ ) and OR=3.2 (95% CI 1.6-6.3;  $p=0.001$ ); death for cardiac causes showed  $I^2=0\%$  ( $p=0.782$ ) and OR=3.5 (95%CI 2.2-5.7;  $p<0.001$ ); sudden death avoided showed  $I^2=0\%$  ( $p=0.815$ ) and OR=6.3 (95%CI 3.4-11.6;  $p<0.001$ ).

## Conclusions

LGE at CMR in patients with CMD is closely related to a more negative prognosis if compare to patients without LGE.

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