



POSTER PRESENTATION

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The evolution of myocardium at risk by T2-STIR MR imaging the first week after acute myocardial ischemia

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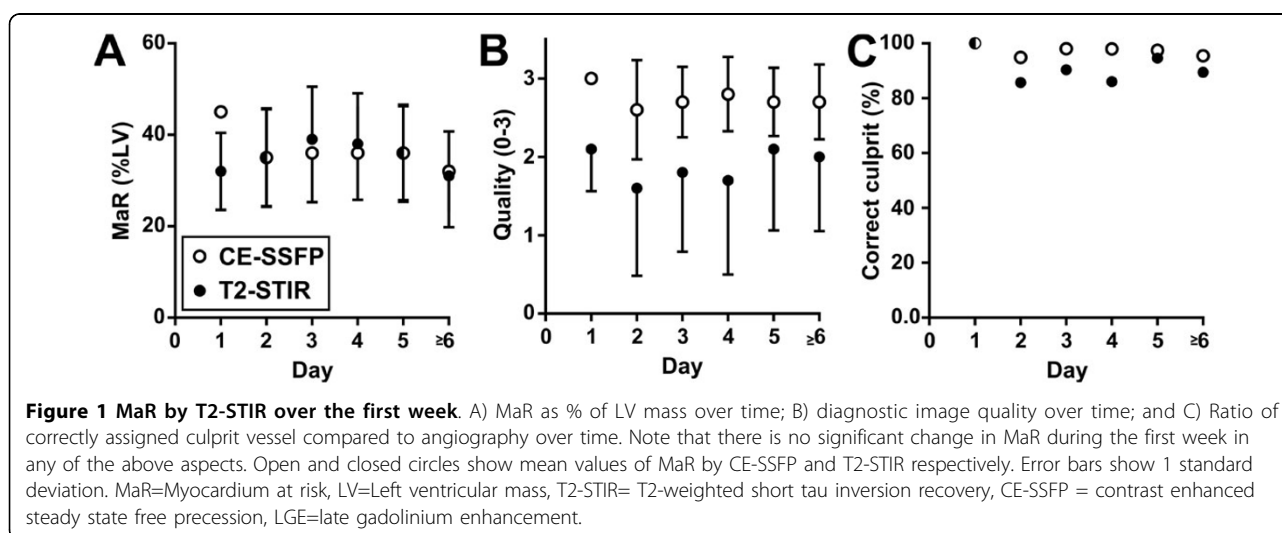
Background

Myocardial salvage is currently being used as endpoint in several clinical trials and is determined by relating final infarct size to myocardium at risk (MaR). T2-weighted imaging (T2-STIR) cardiac magnetic resonance (CMR) has previously been shown to enable assessment of MaR up to one week after acute myocardial infarction. Recent experimental data indicate that the extent of MaR by T2-STIR varies over the first week which would have implications on how to design clinical cardioprotection trials using myocardial salvage as endpoint and in the clinical diagnosis of patients with myocardial infarction and

To investigate whether MaR as assessed by T2-STIR differs depending on scan day during the first week after the acute event in patients with reperfused first-time myocardial infarction.

Methods

196 STEMI-patients from the MITOCARE and CHILL-MI trials undergoing acute percutaneous coronary intervention were included in the study. Eight additional patients with CMR on day 1 were also included. T2-STIR MR imaging was performed 1-7 days after the acute event and was used to evaluate MaR. Diagnostic quality on a



normal coronary arteries.

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scale from 0-3 and ability to correctly assign culprit vessel compared to angiography.

Results

There was no significant difference in MaR over the first week ($p = 0.44$, Figure 1A) neither was there any change in diagnostic quality ($p = 0.26$, Figure 1B). The rate of correctly assigned culprit vessel was also similar for the different scan days (Figure 1C).

Conclusions

Myocardium at risk by T2-STIR CMR imaging do not change in humans over the first week after acute reperfused myocardial infarction suggesting that MaR is a stable measure during this period of time.

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