

POSTER PRESENTATION

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Differences between early versus late correction of Tetralogy of Fallot (TOF) in cardiac Magnetic Resonance (CMR)

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Introduction

Tetralogy of Fallot can be repaired with low mortality and most patients reach adulthood. Nevertheless the optimal timing of surgery remains controversial.

Purpose

To evaluate differences between early versus late correction of Tetralogy of Fallot (TOF) in cardiac Magnetic Resonance (CMR).

Methods

CMR was performed in 55 patients (20 male) using a 1.5T scanner. RV-volumes and pulmonary-regurgitant-fractions (PRF) were calculated from standard cine-sequences and flow-sensitive gradient-echo images, respectively. Scar tissue was quantified from Delayed Enhancement (DE) imaging. Patients were divided into two groups depending age at total repair (group 1≤1year, n=25; group2>1years, n=30).

Results

In 50 patients (91%) RV image quality was diagnostic for quantification of RV DE. Patients of group 2 demonstrated with a significantly higher RV DE ($p<0.05$) compared to group 1. No differences were found in regard to LV DE, RV size and RV function.

Conclusions

Patients repaired <1 year show a lower amount of fibrous tissue in the RV. This might support the strategy of early repair.

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