**CARDIAC MAGNETIC RESONANCE IMAGING IN PERIPARTUM CARDIOMYOPATHY**

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Objectives: To evaluate the role of cardiac magnetic resonance (CMR) imaging in patients with peripartum cardiomyopathy (PPCM).

Background: PPCM is a rare life-threatening condition of unclear etiology. Data on the use of CMR imaging to characterize PPCM are limited.

Methods: Medical-records of a tertiary medical-center were screened for PPCM patients with CMR imaging done within last five years. Images were reviewed by two expert radiologists blinded to clinical data, using cine-sequences for chamber function and size, T2-weighted-images for determination of edema (T2-ratio), and midmyocardial and subepicardial late-gadolinium-enhancement (LGE) sequences for myocardial tissue characterization.

Results: Ten PPCM patients (age: 28±6 years) had 15 CMR examinations; acute phase-4 (within 7 days of diagnosis) and follow-up phase-11 (median 12 months, range 1-72 months). Left ventricular ejection fraction (LVEF) was decreased in all four initial scans (18-36%). Elevated T2 ratio (>2) seen in one patient decreased on follow-up imaging. LGE was seen in one of the 4 acute-phase scans and in four of the 11 follow-up phase scans with one patient having LGE in both acute and follow-up phase scans. In comparison to patients without LGE (n=6), patients with LGE (n=4) had higher incidence of CHF decompensation during delivery (100%vs.16.7%; p=0.024), future readmissions due to CHF exacerbations (100%vs.50%; p=0.167), and persistently low LVEF on subsequent echocardiograms.

Conclusions: LGE seems to be associated with poor prognosis in PPCM patients. Although CMR imaging appears to have promising practical implications in the diagnosis and prognostication of PPCM patients, further prospective studies with larger sample-size are warranted to confirm these findings.