and follow-up. Clinical and electrocardiographic markers of MI severity are predictors of interstitial expansion in the infarct zone in STEMI patients.

**SEGMENTAL VARIATION IN MYOCARDIAL EXTRACELLULAR VOLUME IN HEALTHY MID-LIFE ADULTS**

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**Background** Myocardial extracellular volume (ECV) can be estimated by cardiac magnetic resonance imaging (CMR) using pre- and post-contrast T1 MOLLI maps. The age and sex associations with myocardial ECV in healthy mid-life adults are uncertain.

**Methods** Healthy adults without any history of cardiovascular disease or treatment underwent contrast-enhanced CMR at 1.5 Tesla (Siemens MAGNETOM Avanto). T1 mapping with MOLLI was performed before and 15 min after contrast (0.15 mmol/kg gadoterate meglumine). ECV was estimated in regions (AHA 16-segment LV model) and for the whole left ventricular (LV) myocardium (all regions). ECV was calculated as the difference in relaxation rate (R1=1/T1) for myocardium and LV blood pool before vs. after gadolinium contrast administration, corrected for haematocrit (HCT). LV segments which were not evaluable due to artefact were excluded from analysis.

**Results** 114 segments were assessed from 19 subjects (mean age 10.1 ± 1.5 years; 53% male). 21 (18%) segments were excluded due to blood pool artefact or signal dropout in the pre-contrast T1 MOLLI scan. All segments were evaluable in the post-contrast T1 MOLLI scans. The remaining segments for each subject were averaged to give an overall ECV (global LV). The mean ECV for all subjects was 25.6 ± 2.9%. There was no overall segmental variation in ECV; ECV in females was higher than in males (27.6 ± 3.1% vs. 23.9 ± 1.3%; P = 0.003). The percentage difference was 14.5%. ECV was higher in septal segments in females (anteroseptal: 28.0 ± 3.3% vs. 24.2 ± 1.5%; P = 0.004; inferoseptal: 27.3 ± 3.8% vs. 23.5 ± 1.6%; P = 0.011), whereas no differences were observed for other segments.

**Conclusion** In this preliminary analysis, myocardial ECV was higher in women than in men, which was attributable to higher ECV in the septum in females. This sex difference merits further study. If these results are confirmed by other studies, then sex-specific reference ranges for ECV would seem appropriate.