

velocities and myocardial velocity gradient of normal fetuses by using QTVI.

Methods We measured motion velocities of the left and right atrial wall along the long axis in 50 normal fetuses aged 21–32 weeks gestation (mean, 25.3±2.8 weeks). In all fetuses, peak myocardial velocities during early diastole (EW), atrial contraction (AW) and ventricular systole (SW) waves were recorded in basal atrial segment and mid atrial segment. Correlation analysis was conducted between segmental velocities of left atrium (LA) and right atrium (RA) and gestational ages.

Results The mean values for EW, AW and SW of long axis in the same right basal segment of RA were greater than those of LA ($p<0.01$). There was degressive gradient with velocities from basal to superior in the atrial wall. There was a linear relationship with gestation for all basal myocardial velocities of the left and right atrial free wall ($p<0.05$). But the myocardial velocities variables of the mid atrial wall showed no age-dependence.

Conclusion Quantitative Tissue Velocity Imaging are reproducible and readily obtained parameters that provide unique data about segmental atrial myocardial velocities in normal fetuses. This study demonstrates the characteristics of atrial myocardial velocities in normal fetuses.

[gw22-e0329]

ATRIAL MYOCARDIAL VELOCITIES IN NORMAL FETUSES ASSESSED BY QUANTITATIVE TISSUE VELOCITY IMAGING

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10.1136/heartjnl-2011-300867.319

Objectives Quantitative Tissue Velocity Imaging (QTVI) is a new non-invasive method that derives measurements of velocities directly from the myocardium. Data on atrial myocardial tissue velocities in normal fetuses have not been established. The objective of this study was to evaluate atrial myocardial