HEART FAILURE – RESYNCHRONISATION

902 Normal values for ventricular synchrony measured by tissue Doppler imaging and tissue Doppler synchronization imaging in structurally normal hearts
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Objective: To study normal values for intraventricular and interventricular component, and for a residual shunt after percutaneous closure with echocontrast agent (Physiogel, microbubbles) was injected in the right cubital vein in a bolus of 2ml/kg weight.

Material and methods: In 150 pts we performed a simultaneous TCD during TEE to detect a right to left shunting. In a standardised procedure echocardiographic assessment was performed using spectral Doppler (PFG) and for a residual shunt after percutaneous closure of a PFO is the transcranial Doppler (TCD) or echocardiographic TEE imaging. Considering the patients comfort, the TEE method has certain disadvantages for the patients (pts) in comparison to the combined method with transthoracic echocardiography and transcranial Doppler sonography (TCD). We compared the two methods regarding to diagnosis PFO.

Results: MR was classified quantitatively as mild (<0.2) in 9 patients, moderate (0.2-0.4) in 5 and severe (>0.4) in 3 patients. Using CD flow mapping in 4 plus scale the MR was mild (+) in 3 patients, mild to moderate (+/++) in 12 and severe (++++) in 2 cases. Qualitative and quantitative method of assessment were concordant in 3 patients with mild MR, in 5 patients with moderate MR, and in 2 patients with severe MR. Qualitative assessment tended to underestimate the regurgitation severity in 1 patients and overestimate the regurgitation severity in 5 patients.

Conclusion: Qualitative estimation of mitral regurgitation in patients with PFO frequently overestimates its severity, compared to quantitative assessment, which should be used routinely in this subgroup of patients to evaluate the outcome of surgery.

ATRIAL FUNCTION AND DISEASE

901 Shunt diagnostic with power-mode Doppler after percutaneous PFO closure
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Background: The gold standard for screening of a patent foramen ovale (PFO) and for a residual shunt after percutaneous closure of a PFO is the transcranial Doppler imaging (TCD). We compared those two methods in patients after PAVC surgery.

Methods: The group of 17 patients (13 female, mean age 35.6, range 19-61, 4 males, mean age 43.7, range 35-57) who underwent surgery for PAVC between 1998 and 2005 was examined. 11 patients underwent valvular repair procedure. Left atrial dimensions and systolic function were assessed from parasternal and apical 2D views. The severity of MR was assessed qualitatively with 4 plus scale and quantitatively with the measurements of the PISA, the effective regurgitant orifice (ERO) and the mitral regurgitant volume (MR vol).

Results: MR was classified quantitatively as mild (<0.2) in 9 patients, moderate (0.2-0.4) in 5 and severe (>0.4) in 3 patients. Using CD flow mapping in 4 plus scale the MR was mild (+) in 3 patients, mild to moderate (+/++) in 12 and severe (++++) in 2 cases. Qualitative and quantitative method of assessment were concordant in 3 patients with mild MR, in 5 patients with moderate MR, and in 2 patients with severe MR. Qualitative assessment tended to underestimate the regurgitation severity in 1 patients and overestimate the regurgitation severity in 5 patients.

Conclusion: Qualitative estimation of mitral regurgitation in patients with PFO frequently overestimates its severity, compared to quantitative assessment, which should be used routinely in this subgroup of patients to evaluate the outcome of surgery.

MYOCARDIAL VELOCITY IMAGING (DMI)

903 What is the mechanism of LV remodelling in bundle branch block patients?
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Background: LV remodelling with septal hypo- and lateral hypertrophy is frequently found in patients with left bundle branch block (LBBB). This study investigates mechanical consequences of conduction delays by echocardiographic Strain Rate Imaging as its potential mechanism.

Methods: In 19 patients with non-isaemic LBBB (QRS 170±21 ms), 15 patients with right bundle branch block (RBBB. This study investigated mechanical consequences of conduction delays by echocardiographic Strain Rate Imaging as its potential mechanism.

Results: In NORM, LV, and RBBB, LV ejection fraction was 58±3%, 52±5%, and 55±3% respectively. In patients with LBBB, LV ejection fraction was 62±2% (p<0.01). O.S preceded MCV by 58 ms in sotalol and anteroseptal