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Peripartum Cardiomyopathy; Time to Look to the Right

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Background:
The outcome of patients with peripartum cardiomyopathy (PPC) is highly variable, moreover the pathogenesis of this disorder is not well defined. Clinical and echocardiographic status improve rapidly in some patients, but others deteriorated and do not responed to medical therapy.
Aim*:* To evaluate the early echocardiographic parameters in patients with rapid recovery versus those who do not improve.
Methods:
We conducted a retrospective chart review of patients admitted with dyspnea and had the diagnostic criteria of PPC. Between January 2000 and November 2007 we identified 11 patients (mean age 33.3 ±6.7) admitted with this clinical entity. Echocardiographic data at presentation and at one year follow up were collected.

Results:
Patients were categorized on the basis of their follow up LVEF. Improved group with LVEF greater than 45% and the non improved less than 45%. Six patients had improved and five remain with reduced LVEF.

Echocardiographic parameters at presentation	One-year follow up		P value*
	Improvement (LVEF>45%) (n=6)	No Improvement (LVEF<45%) (n=5)	
Age (years)	35.2±6.6	31.0±7.1	0.198
LV-EDD (mm)	50.2±3.3	57.2±3.8	0.028
LV-ESD (mm)	39.0±5.4	48.2±6.5	0.110
LVEF (%)	38.8±12.4	23.6±5.0	0.021
RV-EDD (mm)	26.5±3.3	38.0±1.2	0.006
MR (Grade)	2.3±0.8	3.0±1.2	0.210
TR (Grade)	1.2±1.0	2.4±0.9	0.062
PAP (mmHg)	33.3±12.6	43.2±2.9	0.167

*Mann-Whitney test

One patient from the LVEF<45% group died at early follow up.

Conclusion:
1- Echocardiographic parameters associated with lack of recovery at initial assessment were significant RV enlargement, LV dilatation and dysfunction.
2- Bilateral ventricular enlargement may predict a diffuse cardiac involvement with unfavorable outcome.

Superiority of Real Time Three Dimensional Echocardiography in the Evaluation of Extra-Cardiac Intra-Thoracic Pathologies: Initial Experience

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Real time three dimensional echocardiography (RT3DE) allows the evaluation of cardiovascular anatomy and hemodynamics without many of the assumptions adopted in two dimensional Doppler echocardiography.
Aim: evaluate the utility of RT3DE in the assessment of extra-cardiac intra-thoracic pathologies.
Methods: Real time trans-thoracic and trans-esophageal echocardiography using Phillips IE33 echocardiographic machine in subjects with extra-cardiac intra-thoracic pathologies.
Results: Huge aortic arch chronic pseudoaneurysm before rupture was diagnosed by RT3D-TEE in a subjects with stab-wound in the back before 60 years.
Aortic dissection in a subject with ascending aneurysm was detected by RT3DE-TEE not seen by other methods. In addition undiagnosed bicommissural aortic valve as a reason for severe aortic regurgitation was diagnosed.
Evaluation of a large thoracic tumor, assessing its extent, volume and content with the left coronary artery running through the mass was performed by RT3DE.
Conclusions: RT3DE is valuable in the assessment not only of cardiac anatomy and hemodynamics but also of extra-cardiac intra-thoracic pathologies without the need for radiation.

Why do People with Lone Atrial Fibrillation Develop AV Valve Regurgitation?

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Introduction: Atrial enlargement, annular dilatation, and bilateral Atrio-Valve regurgitations (AVVR) are described among pts with lone permanent (>6months) AF, however the mechanism of AVVR in these pts has not been fully evaluated.

Aim: Investigating the mechanism of AVVR among lone permanent AF.

Material and Methods: Twenty eight pts;17 female,11 male, mean age 77 ± 6 years with lone permanent AF and preserved left ventricular ejection fraction (≥ 50%) underwent two dimentional color Doppler study. AVVR was detected in 21/28 (75%) of the pts. Mitral and tricuspid regurgitation (MR/TR) were graded as: none, mild, moderate, and severe. In order to assess the mechanism of AVVR, both left and right atrial areas (cm^2) including annular diameters (mm) were measured in apical 4 chamber view.

Results:

MR	Number of pts	LA area (cm^2)	MV annular diameter(mm)
No MR	7	21±6	32±2
Mild MR	15	21±5	33±4
Moderate MR	5	23±6	35±4
Severe MR	1	21	31
p-value		0.3	0.21

TR	Number of pts	RA area (cm^2)	TV annular diameter (mm)
No TR	7	18±3	34±2
Mild TR	16	19±5	35±4
Moderate TR	4	23±2	38±2
Severe TR	1	22	36
p-value		0.45	0.03

Although statistically not significant (p-0.4) a trend towards larger atrial areas and increased annular diameters were detected in pts with moderate AVVR compared to the pts with no AVVR.

Conclusions: These findings indicate that annular enlargement isn't the single mechanism generating AVVR among pts with permanent AF. The role of annular dysfunction in this group should be investigated.