fraction, mitral filling pattern, deceleration time, isovolumic relaxation time and degree of valvular regurgitation. End points were defined as cardiac death, hospitalization for worsening heart failure and peripheral embolic event. Event-free survival was analysed by Kaplan-Meier method.

Results: 124 months, 69 patients suffered an event (cardiac death=52; hospitalization for heart failure=38 and embolic event=4). In univariate analysis, right ventricular surface area and right ventricular fractional shortening were associated with prognosis, whereas in multivariate analysis three parameters — left atrial diameter, right ventricular surface area and mitral filling pattern had independent prognostic value. In ROC analysis, the most cut-off value was 45 mm for left atrium, 26 mm for right ventricle and restrictive filling for mitral filling pattern.

Risk groups were identified as by the absence or presence of one, two, or three risk factors. Event-free survival was 93%, 79%, and 0% for no, one and two or three risk factors respectively.

Conclusions: In patients with DCM a risk stratification based on echocardiographic variables can successfully predict event-free survival.

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Is Tei index the new echocardiographic golden standard for predicting the death in children with idiopathic dilated cardiomyopathy? V.M.P. Azevedo 1, F.M. Albanesi Filho 2, M.B. Caslier 2, M.A. Santos 2, M.O.M. Cunha 2, 1National Inst. Cardiology Laranjeiras, Pediatric Cardiology Dept, Rio de Janeiro, Brazil; 2University of Rio de Janeiro State, Cardiology, Rio de Janeiro, Brazil; 3National Inst. Cardiology Laranjeiras, Pediatric Cardiology, Rio de Janeiro, Brazil; 4National Institute of Cancer, Pediatric Dept, Rio de Janeiro, Brazil

Background: Tei index evaluates ventricular systolic and diastolic function. It is useful predicting evolution in patients with ventricular dysfunction. It remains doubtful whether it is the new golden standard in predicting the death in children with idiopathic dilated cardiomyopathy (DCM), compared to others 11 echocardiographic parameters.

Purpose: To compare Tei index as an independent marker of death with others 11 echocardiographic data in children with DCM.

Patients: 55 consecutive children with DCM (13 deaths) underwent 92 echocardiographic studies from January 1996 to August 2003.

Methods: Tei index (LVTei) were compared to echocardiographic data from dimension of cavities and derivatives functions (26 parameters), Doppler diographic variables can successfully predict event-free survival.

Methods: From 513 patients with Fabry disease (5-78 years) were included and compared with LV Tei, with grouping according by mitral regurgitation. Statistical significance done by alpha=0.05 and beta=0.80.

Results: age=33.6 years old (zero to 15.4; median=16.66), 28 males (43.8%); CRY 20.5 to 57.1% (p=0.18) and 34 black (61.8% - CRY 47.7% to 74.3%)(p=0.032). LVTei and RV Tei had a higher correlation (r=0.82, p=0.001); therefore RV Tei was discharged from analysis to avoid bias. After the first step of Cox's method, the significant variables were select and compared with LV Tei, with grouping according by mitral regurgitation. Statistical significance done by alpha=0.05 and beta=0.80.

Conclusions: The reproducibility of left ventricular (LV) volumes measurements obtained by magnetic resonance imaging (MR imaging) and second harmonic echocardiography (SH echo).

Patients and method: 30 patients (19 males, 11 females, mean age 67±11 years) with stable ischemic heart disease underwent twice in a 24 hour interval both SH echo and True Fisp sequence MRI imaging. Left ventricular end diastolic and end systolic volumes were calculated using Simpson's method. The intra-observer, inter-observer and inter-study variabilities, defined as an upper limit of 95% confidence interval of mean variances, were calculated for both imaging modalities.

Results: The cut off values of variabilities the MRI imaging and SH echo are reported.

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The reproducibility of measurements of left ventricular volumes and ejection fraction obtained by magnetic resonance imaging & second harmonic echocardiography in patients with ischemic heart disease J. Lipedra 1, V. Deocal 1, P. Chabrol 2, S. Uglionso 3, A. Biaryl 4, N. Durat 5, L. Boyer 6, J. Ponsamolel 7, C.H.U St Jacques, Cardiologie Dept, Clermont Ferrand, France; 2CHU St Jacques, Radiologie Dept, Clermont Ferrand, France; 3University Hospital, Dept of Statistics, Clermont Ferrand, France

Aim of the study: to compare the reproducibility of left ventricular (LV) volumes measurements obtained by magnetic resonance (MR) imaging and second harmonic echocardiography (SH echo).

Conclusion: The reproducibility of LV volumes measurements is better with MR imaging than that with SE echo. Both imaging modalities remain operator dependent in particular for the calculation of the end systolic volume.

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Late enhancement is a marker of advanced disease progression in Fabry Cardiomyopathy F. Weidemann 1, F. Breuning 1, M. Bauer 2, W. Woeke 1, G. Ernst 1, A. Knoll 2, 1Department of Medicine 1, G. Rothman 3, H.U. Hospital, Cardiology, Wurzburg, Germany, 2Medizinische Universitas Klinik, Kardiologie, Wuerzburg, Germany, 3University Hospital Wuerzburg, Cardiology, Wurzburg, Germany

Background: It is known that some patients with Fabry disease develop late enhancement (LE) as a marker of myocardial fibrosis in the left ventricular myocardium during progression of the disease. The aim of this study was to evaluate the relationship between function abnormalities (assessed by strain rate imaging) and LE (assessed by magnetic resonance imaging) in a large group of Fabry patients.

Methods: 51 patients with Fabry disease (5-78 years) were included and compared to 25 age matched controls. End-diastolic thickness of the LV interventricular septum was measured by echocardiographic M-mode. Magnetic Resonance Imaging (n=39) was performed to assess ejection fraction and potential late enhancement for the detection of myocardial fibrosis. In addition, for both cine and peak systolic Strain Rate (SR) was acquired to assess regional myocardial function.

Results: Women younger than 20 years had no hypothyroid, no late enhancement and normal LV radial and longitudinal function (SR longitudinal=-1.7±0.5; 1.4±0.4; -1.5±0.5). Ten women older than 20 years had no LV hypothyroid, no late enhancement, normal radial function and normal longitudinal function in the septal wall but reduced longitudinal function in the LV lateral wall (SR=1.4±0.5; -1.5±0.5). All male patients without LV hypothyroid and no late enhancement had normal radial function but longitudinal function was reduced in both the septal and lateral wall (SR=1.3±0.3;0.3±0.3).

1) the reproducibility of LV volumes measurements is better with MRI imaging than that with SE echo. 2) both imaging modalities remain operator dependent in particular for the calculation of the end systolic volume.

Eur J Echocardiography Abstracts Supplement, December 2005

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