Conclusion: We reported systolic RV long axis function being independent of age, irrespectively method. Myocardial strain was higher among males, although the strain technique showed a wide spread in standard deviation. The lack of correlation between strain measurements and traditional m-mode and pulsed TDI techniques and the differences in pulsed and colour TDI technique should be considered in the use of these methods.

239 Non-invasive assessment of right ventricular function in patients with systemic sclerosis

M. Czarny,1, P. Berens,1 M. Glimsa-Wielchochowska,1 K. Jagorek,1 B. Libsch,2,1, K. Kurecka,1 M. Narzynska,1 D. Litewka-Pokup,1 1Medical University of Warsaw, Institute of Medicine and Cardiology: Warsaw, Poland, 2Medical University of Warsaw, Dept. of Int. Medicine and Cardiology: Warsaw, Poland.

Background: Systemic sclerosis (SSc) may be associated with right ventricular overload, secondary to pulmonary hypertension (PH). The reported rates of PH in SSc patients is 10-60% and represents a leading cause of mortality. The aim of this study was to evaluate right ventricular function in SSc patients and to establish whether that population presents limitation in exercise capacity.

Methods: We prospectively studied 20 consecutive patients (17F, 3M, age 56±11.5yrs) with SSc (mean disease duration 10.5±2.4yrs) and the group of 15 age-matched healthy subjects (13F, 2M, age 56±5yrs). In addition to conventional evaluations, transthoracic echocardiography (TTE) for assessment of RV overload, 6-minute walking test (6MWT) and NT-proBNP were performed.

Results: Patients with SSc presented signs of RV overload at TTE examination. Incapacitating pressure gradient intensity (TIPG) could be measured in 14 SSc patients (70%) and in 3 controls (20%). The mean value of TIPG in SSc group was higher than in controls (27±6 vs 19±3 mmHg, p=0.04). TIPG > 30 mmHg was found in 5 (25%) SSc patients (TIPG 42, 36, 33, 32, 32 mmHg, respectively), while in none of the controls. Also RVSP was increased in SSc patients (p=0.016). On right heart catheterization the mean 6-MWT distance was shorter in SSc patients (92±13 vs 95±5.6, p=0.003). Interestingly, plasma NT-proBNP level correlated positively with TIPG (r=0.58, p=0.003) and negatively with 6 MWT distance (r=0.46, p=0.05).

Conclusions: Pulmonary hypertension and limitation of exercise capacity is common in SSc patients. Noninvasive investigation of PH among SSc patients may provide an opportunity to interveime prior to develop of irreversible pulmonary vascular disease.

240 The pulmonary arterial stiffness in acute pulmonary thromboembolism

N. Kalay, I. Ozdogru, A. Gul, I. Gul, Y. Cetinkaya, A. Dogan, Y. Yilmaz, A. Ozguzhan. Erzurum University, Cardiology Department, Erzurum, Turkey.

Introduction: Pulmonary arterial stiffness (PAS) is a new echocardiographic index that can be used to noninvasively evaluate the pulmonary arterial vasculature. It can be used as an echocardiographic parameter to evaluate the cardiac functions and pulmonary arterial vasculature in APE.

Methods: We consecutively studied 25 patients with dilated cardiomyopathy (ischemic or non ischemic) before and 6 months after pacemaker implantation. RV function was evaluated with RV Tei index (Tei), RV dp/dt (DPTD) and annular Right ventricular Peak velocity (APV) using Tissue Doppler Imaging (TDI). A MANCOVA with repeated measures was used for comparisons of Dobpler variables at baseline and during DVP.

Results: There are no significant change according to pacing mode for SP (p = 0.826) and DPTD (p = 0.179). Tei index is significantly improved for patients with steepal load (p = 0.03) Echographic parameters exhibit similarly in subgroups of ischemic or non ischemic cardiomyopathy. Tei index is significantly improved in subgroup of responders patients (p = 0.09).

Conclusion: In our study, biventricular pacing does not have negative hemodynamic impact on RV function. RV lead may be implanted on the interventricular septum. Tei index seems to be the most relevant index to follow the evolution of RV function after resynchronisation therapy.

241 Predictive value of echocardiography on in-hospital mortality in haemodynamically stable patients with pulmonary embolism

S. Salingor1, J. Glaznović1, A. Stojić2, D. Djurdjević2, R. Janjolić2, D. Milić2, V. Topić2, M. Ziković1. 1Clinical Centre Niš, Cardiology Department, Niš, Serbia and Montenegro, 2Clinical Center, Clinic of vascular surgery, Niš, Serbia and Montenegro.

Background: Non-invasive assessment of right ventricular function in patients with acute pulmonary embolism (PE) is still unclear. The aim of this study was the assessment of echocardiographically proved RVD as a valid prognostic factor in patients with acute PE.

Methods: We analyzed 80 haemodynamically stable patients with acute pulmonary embolism. We also investigate the influence of age, gender, obesity, malignancy, orthopedic surgery, D-dimer, perfusion lung scan detects and antiocoagulation therapy.

Results: RVD was diagnosed by right ventricular dilatation (without hypertrophy), right ventricle-left ventricle (RV/LV) diastolic diameter ratio > 0.9, paradohal systolic vential motion, and pulmonary hypertension (Doppler imaging). There were 12 lethal outcomes during hospitalization period. Univariate analysis showed that perfusion lung scan detects and sub-coding of LMWH were significantly associated with the risk of death (see table).