Hypertension. More patients in the statin group had documented hypercholesterolemia, diabetes, or had proven coronary artery disease. Overall, the rate of change of aortic Vmax with symptomatic aortic stenosis was not found. Patients taking a combined therapy of statins and ACE-inhibitors showed a small, even if not statistically significant, reduction in annual rate of increase of aortic Vmax. Further prospective studies on larger populations are needed to draw a conclusion.

Conclusions: In our study a beneficial effect of statins or ACE-inhibitors in patients with aortic valve sclerosis or stenosis was not found. Patients taking a combined therapy of statins and ACE-inhibitors showed a small, even if not statistically significant, reduction in annual rate of increase of aortic Vmax. Further prospective studies on larger populations are needed to draw a conclusion.

427 Evaluation of left ventricular remodeling in patients with aortic stenosis

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Background: Pressure overload in patients with aortic stenosis causes accumulation of fibrillar collagens leading to increase of left ventricular mass and myocardial stiffness.

Aim: The aim of study was to establish relation between type of left ventricular remodeling and echocardiographic parameters.

Methods: The study population consisted of 128 patients with isolated aortic stenosis (42 women; mean age 65±10 years). Types of left ventricular remodeling in patients with aortic stenosis were classified according to LVM and relative wall thickness (RWT): normal LV (N), LV concentric remodeling (CR), LV concentric hypertrophy (CH) and LV eccentric hypertrophy (EH).

Results: The mean echocardiographic parameters of patient with AS were: the aortic valve area (AVA) of 0.8±0.3 cm², maximal pressure gradient (PG max) 86±29 mm Hg and mean pressure gradient (PG mean) 54±20 mm Hg, LVEF 71±14%, fractional shortening (FS) 35±10%, left LVM 146±47 mg, circumferential end-systolic wall stress (cESS) 102±48 kdynes/cm², left ventricular chamber stiffness (KL) 0.12±0.11 mm Hg/ml. Prevalence of types of left ventricle remodeling was N - 11 pts (8%), CR - 38 pts (30%), CH - 60 pts (47%), EH - 19 pts (15%). In group of patients with excentric remodeling significantly higher were cESS and KLV and significantly lower was LVEF compared with patients without or with another type of LV remodeling. Midwall FS was significantly the lowest in patients with normal left ventricle than in patients with left ventricular remodeling. There were no differences in Doppler parameters of aortic stenosis and diastolic function indices in different types of LV remodeling.

Conclusions: Left ventricular remodeling is the highest in group with excentric hypertrophy and associated with increase of left ventricle chamber stiffness and deterioration of systolic function indices. Response of left ventricle remodeling to pressure overload depends more level of wall stress that to Doppler echocardiographic parameters of aortic stenosis severity.

428 Association of aortic sclerosis and mitral annular calcification in patients referred to myocardial revascularisation

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Aortic valve sclerosis (AVS) and mitral annular calcification (MAC) are considered as manifestations of generalized process of atherosclerosis. AVS and MAC are associated with high morbidity and mortality in population-based studies and studies of preclinical coronary heart disease. Few data are available about AVS and MAC in clinically manifested and angiographically proved coronary heart disease.

Aim: To investigate clinical predictors, frequency and association of AVS and MAC in 106 consecutive patients (pts) referred to myocardial revascularisation (men age 59.5±8.5 yrs; 72.6% male). AVS and MAC were assessed by transthoracic echocardiography.

Results: 12 pts (11.3%) of 106 pts had MAC. 25% of AVS. Pts were divided into three groups: Group A (without MAC and AVS), Group B (MAC or AVS) and Group C (MAC and AVS). Frequency of pts older than 65 yrs was higher in groups with valve sclerosis (Group 1 vs. Group 2, p<0.001). There was no difference in LVMI between patients treated or not with ACE-inhibitors (0.12±0.20 m/s/year vs 0.14±0.19 m/s/year, p=0.47). Patients taking both statins and ACE-inhibitors showed a small, even if not statistically significant, reduction in annual rate of increase of aortic Vmax. Further prospective studies on larger populations are needed to draw a conclusion.

Conclusions: In our study a beneficial effect of statins or ACE-inhibitors in patients with aortic valve sclerosis or stenosis was not found. Patients taking a combined therapy of statins and ACE-inhibitors showed a small, even if not statistically significant, reduction in annual rate of increase of aortic Vmax. Further prospective studies on larger populations are needed to draw a conclusion.

429 Predictors of early and medium-term survival after aortic valve replacement in patients with end-stage aortic stenosis and left ventricular dysfunction

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Background: Aortic valve replacement (AVR) for severe aortic stenosis (AS) is challenging in patients with left ventricular (LV) dysfunction. We aimed to identify surgical risk, survival, and predictors of AVR-mortality in end-stage AS.

Methods: Between 1998-2003, 86 patients (aged 71±10 years, range 32-87 years) with severe AS but low peak aortic pressure-drop (APVD: <35 mm Hg) due to LV dysfunction (fractional shortening (FS)<25%) underwent AVR. Pre-operative echocardiography measured FS, peak APVD, mitral E/A ratio, peak systolic pulmonary artery pressure (from peak tricuspid regurgitant velocity and estimated right atrial pressure), and LV mass index (LVM). Cox proportional hazards identified independent clinical, surgical, and echocardiographic predictors of mortality in end-stage AS.

Results: All patients were symptomatic preoperatively (27 NYHA class II, 36 Class III, 23 Class IV; 49 exertional angina). 50 patients had coronary artery bypass surgery (CABG) at time of AVR. 64 received a stentless AVR, 22 received an aortic bioprosthesis. TV was 19.1±10.1mm. AVR was performed in 34. 23 pts (50.0%) received a stentless AVR, and emergency AVR was performed in 34.

Conclusions: In our study a beneficial effect of statins or ACE-inhibitors in patients with aortic valve sclerosis or stenosis was not found. Patients taking a combined therapy of statins and ACE-inhibitors showed a small, even if not statistically significant, reduction in annual rate of increase of aortic Vmax. Further prospective studies on larger populations are needed to draw a conclusion.