sensibility and 71% specificity to predict peak exercise systolic pulmonary pressure >80 mmHg.

Conclusions: Exercise echocardiography is useful for early detection of abnormal pulmonary systolic pressure response in a population at risk for PAH. An abnormal response is associated with other markers of pulmonary vasculopathy. Further studies are needed to elucidate the relation between these findings and the possibility to develop true pulmonary arterial hypertension in the future.

Physiologic response and arrhythmic disorders during dobutamine stress echocardiography after acute myocardial infarction - influence of gender

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Dobutamine stress echocardiography (DSE) has been reported as an effective noninvasive tool in assessing prognosis in both men and women after acute myocardial infarction (AMI). Possible induction of arrhythmias during the test may interfere with diagnostic accuracy and prognostic implications of this procedure.

Aims: The purpose of this study was to examine gender differences in physiologic response and arrhythmic disorders during DSE after AMI. Patients and methods: The investigation comprised 110 patients, 49 women (F) and 61 men (M), all with non-complicated AMI. 78 patients (70.9%) received thrombolytic therapy. After 10-12 days all of them underwent DSE testing and during the next 3-6 months they also underwent coronary angiography.

Results:
During the DSE tests there were no fatal events. Non-sustained ventricular and supraventricular tachycardia occurred in 3 F (6.1%) and 9 M (14.8%) and in 5 F (10.2%) and 12 M (19.7%). In 5 M (8.2%) junction rhythm was developed, and in 5 M (8.2%) AV block II:III. Systolic blood pressure decrease of >40 mmHg occurred in 4 F (8.2%) and 9 M (14.8%). Significant coronary stenoses were found in 24 (40%) F and 35 (57.4%) M and they underwent PTCA and coronary artery bypass grafting. Women vs men had a higher baseline heart rate (82±11 vs 69±11 beats/min, p<0.001), and showed a more rapid increase in heart rate at low dose, with a higher age-predicted maximum heart rate at peak. This led to test termination at target heart rate that was achieved with sub-maximum dose of dobutamine in 26% of women versus 14% of men (p=0.0001). There was no significant difference between patients with and without arrhythmias, regarding the prevalence of CAD of the mean number of diseased coronary arteries (1.61±0.7 vs 1.59±0.6). Independent predictors of arrhythmias assessed by multivariate analysis of clinical, angiographic, and echocardiographic characteristics were: a) higher resting wall motion score index (p<0.01), and b) male gender (p<0.1). Independent predictors of systolic blood pressure decrease of >40 mmHg were: a) higher baseline systolic pressure (p<0.001), b) hypertrophic left ventricle with diastolic dysfunction, and c) higher resting wall motion score index with systolic dysfunction.

Conclusion: Physiologic responses to dobutamine stress are comparable in men and women, except that a more rapid heart rate response is found in women. Arrhythmic disorders during DSE are predicted by the male gender and by the extent of systolic or diastolic left ventricular dysfunction, but not by the presence or the extent of CAD.