During long-term follow-up.

Conclusion: The presence of viable myocardium was defined by a contractility improvement in at least 4 basally dysfunctional segments; ischemia was identified by a stress-induced wall motion abnormality in at least 2 segments or by a biphasic response. After a period of at least 6 months, by a follow-up was performed. Two main end-point were considered: all-causes mortality and major cardiovascular (CV) events (cardiac death-non fatal myocardial infarction).

Results: The study population were predominantly males (61%, mean age 68±10 years) and hypertensive 225 (71%), fifty-five subjects (49%) received antidiabetic therapy, with an inadequate glicometabolic control (HbA1c ≥7.7±1.4%).

Background echocardiographic findings showed normal left ventricular (LV) size and-diastolic diameter 55±8 mm, indexed LV mass 102±27 gm/m2 and a mildly reduced systolic function (ejection fraction, EF, 47±14%). DSE was indicative of inducible ischemia in 129 (41%) patients, negative in 56 (18%), non diagnostic in 65 (21%); DSE was interrupted due to adverse events in 65 (21%) patients; no major complication occurred. In 62 (20%) subjects, the presence of viable myocardium was detected. During follow-up (mean duration 1202±613 days), 60 deaths, 31 of which for major cardiovascular causes, and 54 major CV events were observed. Logistic regression demonstrated that age (RR 1.10, CI 1.03-1.17, p=0.004) and a depressed systolic function (EF RR 0.96, CI 0.02-1.00, p<0.05) were independent predictive factors of all-causes mortality, and only viability was independent predictor of major CV events (RR 3.19 CI 1.19-8.63, p<0.025).

Conclusions: While all-causes mortality seemed to be significantly affected only by age and a reduced systolic function, viability was the only independent predictor of major CV events. This result confirms that viable myocardium is an “unstable” area, which may enhance potentially malignant arrhythmias and LV remodelling; its presence may be associated with an unfavourable prognosis, more frequently in absence of coronary revascularization (present in only 13% subjects presenting viability), thus confirming the necessity of a prompt diagnostic evaluation and subsequent treatment, irrespective of age.

202

Prognostic value of dobutamine stress-echocardiography in diabetic patients

C. Agresti1; F. Innocenti1; C. Mei1; E. Mannucci2; M. Monami3; N. Marchionni1; G. Masotti1; R. Pini1

1Cuore e Vasi AOUG Careggi, Geriatric Cardiology Dept., Firenze, Italy

Aim: To evaluate the role of dobutamine stress-echo (DSE) in prognostic assessment of patients with type 2 diabetes mellitus (DM) and known or suspected coronary artery disease (CAD).

Methods: 317 consecutive patients, with type 2 diabetes mellitus and known or suspected CAD, underwent DSE, according to standard protocol. The presence of viability was defined by a contractility improvement in at least 4 basally dysfunctional segments; ischemia was identified by a stress-induced wall motion abnormality in at least 2 segments or by a biphasic response. After a period of at least 6 months, by a follow-up was performed. Two main end-point were considered: all-causes mortality and major cardiovascular (CV) events (cardiac death-non fatal myocardial infarction).

Results: The study population were predominantly males (61%, mean age 68±10 years) and hypertensive 225 (71%), fifty-five subjects (49%) received antidiabetic therapy, with an inadequate glicometabolic control (HbA1c ≥7.7±1.4%).

Background echocardiographic findings showed normal left ventricular (LV) size and-diastolic diameter 55±8 mm, indexed LV mass 102±27 gm/m2 and a mildly reduced systolic function (ejection fraction, EF, 47±14%). DSE was indicative of inducible ischemia in 129 (41%) patients, negative in 56 (18%), non diagnostic in 65 (21%); DSE was interrupted due to adverse events in 65 (21%) patients; no major complication occurred. In 62 (20%) subjects, the presence of viable myocardium was detected. During follow-up (mean duration 1202±613 days), 60 deaths, 31 of which for major cardiovascular causes, and 54 major CV events were observed. Logistic regression demonstrated that age (RR 1.10, CI 1.03-1.17, p=0.004) and a depressed systolic function (EF RR 0.96, CI 0.02-1.00, p<0.05) were independent predictive factors of all-causes mortality, and only viability was independent predictor of major CV events (RR 3.19 CI 1.19-8.63, p<0.025).

Conclusions: While all-causes mortality seemed to be significantly affected only by age and a reduced systolic function, viability was the only independent predictor of major CV events. This result confirms that viable myocardium is an “unstable” area, which may enhance potentially malignant arrhythmias and LV remodelling; its presence may be associated with an unfavourable prognosis, more frequently in absence of coronary revascularization (present in only 13% subjects presenting viability), thus confirming the necessity of a prompt diagnostic evaluation and subsequent treatment, irrespective of age.

203

Can Dobutamine stress echocardiography accurately detect significant LAD coronary artery disease in patients with left bundle branch block?

M. Makan1; F. Lu2; A. Rovner1; J.A. St.Vrain1; J.E. Perez2

1Washington University School of Medicine, Cardiology/Internal Medicine Dept., St. Louis, United States of America

Background: The use of stress testing to diagnose significant coronary artery disease (CAD) in patients with left bundle branch block (LBBB) has several shortcomings: electrocardiographic changes are non-diagnostic and exercise nuclear studies disclose false-positive anteroapical and septal perfusion defects due to asynchrony of septal motion. Dobutamine stress echocardiography (DSE) may have the ability to detect myocardial systolic thickening in the context of the typical paradoxic septal motion due to LBBB and to evaluate segmental function in most territories supplied by the left anterior descending coronary artery (LAD) with the exception of septal and LV contractibility improvement during DBX infusion qualified to CABGba or Group II, with no significant MR changes (9 pts) or MR reduction without significant influence on LV function (9 pts) and MDI addressed to CADGm.

Results: In all study pts surgical revascularization was performed with mean 2.5 grafts implanted. In 4 pts valve was replaced, in additional 14 pts mitral reconstruction was performed. Echocardiographic assessments performed 2-7 days, 6 and 12 months following surgical procedure revealed MR intensity as follow: Group I: small 5/4/4, mild 2/2/2, severe 0/0/0, Group II: small 15/14/13, mild 2/3/3, severe 0/0/0. 3 pts died during follow up (group I 1 pts, group II 2 pts).

Conclusions: TEE-DSE seems to be a good diagnostic tool for selecting pts with severe ischemic MR in whom surgical revascularization should be extended with mitral apparatus plasty or valve replacement.