Effect of Treatment on Embolic Events in Patients With Severe Thoracic Aortic Atherosclerosis: Interim Analysis From the NYU Atheroma Group

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Background: Severe thoracic aortic plaques seen on TEE are associated with a high risk of stroke and peripheral embolization. Previous studies have indicated a beneficial effect of warfarin, but only in small groups of patients.

Methods: Since 1998, 1148 pts had thoracic aortic atherosclerotic plaques, at least 5mm or mobile, on TEE at our institution. Retrospective information regarding the occurrence of embolic events was collected from medical records by TEE, as well as treatment with warfarin, antiplastic drugs (aspirin, ticlopidine, clopidogrel), or statins was obtained from patient records or direct patient or family contact. Treatment was determined by referring physicians and was not randomized. Presented here are interim data from 468 randomly selected pts.

Results: Of the 468 pts studied, 176 (37%) received warfarin, 247 (53%) received antiplastic treatment, and 165 (35%) received an antiplastic treatment. An embolic event occurred in 97 pts (21%) (stroke = 46, TIA = 34, peripheral embolization = 15). Warfarin was being given to 32 (33%) of these 97 pts, antiplastic drugs to 46 (49%), and statins to 16 (16%) at the time of their embolic events. Of the 371 pts without embolism, 147 (40%) were receiving warfarin, 199 (54%) antiplastic drugs, and 147 (40%) were on statin. Many pts were on multiple drug regiments. The protective effect of statin with respect to embolic events was statistically significant (OR 0.35, 95% CI 0.2-0.6; P < 0.0009). No significant protective effect was found for warfarin (P = 0.22) or antiplastic drugs (P = 0.43).

Conclusions: Although these data are from an interim analysis of 42% of our pts, the results indicate that there may be a protective benefit of statin, and a lack of a significant protective effect of warfarin and antiplastic drugs in pts with severe thoracic aortic atherosclerotic plaques on TEE. Data from the entire cohort will be more definitive.

Association of Self-Reported Leisure Activity and Coronary Risk With Carotid Artery Reactivity

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Background: Regular leisure activity has been shown to reduce cardiovascular risk and positively influence risk factors. Vascular reactivity, including carotid and brachial arterial reactivity, is also correlated with coronary risk. We studied the association between self-reported leisure activity and carotid reactivity in responses to a sympathetic stressor in 188 adults.

Methods: We also evaluated the vascular response with respect to 3 levels of coronary artery disease (CAD): (1) tdglycerides >=50% BS, (2) HDL cholesterol BS, and (3) total cholesterol BS. Resource utilization defined as the direct hospital cost is higher, with a significant benefit of leisure activity in patients with CAD. This supports national recommendations that regular leisure activity may reduce cardiovascular risk potentially through improved endothelial function, specifically in patients with CAD.

POSTER SESSION

1130 Lipid Modifying Drug Therapy: Special Patient Populations

Monday, March 18, 2002, 3:00 p.m.-5:00 p.m.
Georgia World Congress Center, Hall G
Presentation Hour: 3:00 p.m.-4:00 p.m.

Simvastatin Plus Niacin Protect Against Atherosclerosis Progression and Clinical Events in Coronary Artery Disease Patients With Metabolic Syndrome


Background: Effects of simvastatin plus niacin (SN(+)) on lipids, coronary atherosclerosis progression and clinical events in patients (pts) with metabolic syndrome (MSyn) were evaluated in the NIH-funded, a double-blinded, placebo-controlled, HDL Atherosclerosis Treatment Study (HATS). Method: Of 160 CAD pts enrolled and randomized to treatment (Rx) with SN(+) (daily dose 2-4 g+10-20 mg) or placebo (SN(-)) in HATS, 77% (44/58) of which were MSyn, which was defined as having any 3 of the following 4 criteria: (1) triglycerides >200 mg/dL; (2) HDL <40 mg/dL in men or <50 in women; (3) treated hypertension or blood pressure >140/90 mmHg; and (4) fasting glucose >110 mg/dL. The lipid responses to RX, primary OCA endpoint (mean change in % stenosis) and clinical endpoint (CAD death, MI, stroke, or revascularization) were compared between SN(+) and SN(-) in both pts with and without MSyn. Results: See table. *: vs baseline p<0.05, ** vs SN(-), p<0.005, *** vs MSyn(p>0.05). Conclusion: Patients with MSyn have a significantly greater rate of CAD progression and a 2-5 fold higher frequency of clinical events than without treatment. With RX with SN(+) effectively lowering triglycerides and HDLC, rates of HDLC without significantly affecting fasting glucose and insulin levels, and reducing CAD progression by 90% and cardiovascular events by 40% in pts with MSyn. These data suggest that patients with MSyn should be treated more aggressively and atorvastatin plus niacin appear to be an effective therapy.

Impact of Pravastatin on Secondary Prevention of Coronary Artery Disease in Normolipidemic Patients: Five-Year Angiographical Follow-Up Results of Prospective Randomized Trial (PCS study)

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Background: Prevention of Coronary Sciences (PCS) Study was designed to evaluate the long-term angiographical effect of pravastatin on secondary prevention of progression of coronary artery disease (CAD). Methods: 329 patients with CAD were enrolled and classified into these groups due to serum total cholesterol level: Group 1 (TC=220 mg/