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Chronic CAD/Stable Ischemic Heart Disease

DIABETIC PATIENTS HAVE SIMILAR VEIN GRAFT FAILURE AT 1 YEAR, BUT HIGHER 5-YEAR MORTALITY THAN NON-DIABETIC PATIENTS UNDERGOING CORONARY ARTERY BYPASS SURGERY: INSIGHTS FROM THE PREVENT-IV TRIAL

ACC Moderated Poster Contributions

McCormick Place South, Hall A

Monday, March 26, 2012, 9:30 a.m.-10:30 a.m.

Session Title: SIHD Decision Making: Who (or What) Makes The Call

Abstract Category: 2. Chronic CAD/Stable Ischemic Heart Disease: Clinical

Presentation Number: 1205-393

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Background: Diabetes mellitus (DM) is present in more than 30% of patients undergoing coronary artery bypass (CABG) surgery. Limited information exists on the impact of DM and diabetes treatment on angiographic and clinical outcomes.

Method: Data were drawn from 3012 patients undergoing CABG surgery in the PProject of Ex-vivo Vein Graft Engineering via Transfection (PREVENT) IV trial. Patients were classified as having diabetes or not and among diabetics being treated with insulin, oral agents, diet, or no therapy before CABG surgery. For this analysis, the outcomes were 1-year angiographic graft failure and 5-year death, myocardial infarction (MI), revascularization. Statistical models were performed to adjust for important baseline variables.

Results: A total of 1137 (37.8%) patients had DM. Of these 305 (26.8%) received insulin therapy, 696 (61.2%) oral therapy, 76 (6.7%) diet, and 60 (5.3%) no therapy. Diabetic patients had lower LDL cholesterol, but more hypertension, renal failure, prior stroke, and 3 vessels disease than non-diabetic patients. One-year per graft angiographic vein graft failure rates were similar between diabetic and non-diabetic patients (26.3% vs. 24.5%, adjusted odds ratio 1.08, $p=0.364$). At 5-years, patients with DM had higher rates of death, MI, or revascularization (29.8% vs. 23.6%, hazard ratio 1.23, $p=0.006$) than non-diabetic patients. Clinical outcomes were consistently worse in DM patients, regardless of treatment.

Conclusion: Despite similar rates of 1-year graft failure, diabetic patients have worse 5-year clinical outcomes than non-diabetic patients, regardless the DM treatment. Further studies to better understand the mechanism of our findings are warranted.