COMPARISON OF LIPID CONTROL AMONG DIABETICS WITH NONCORONARY ATHEROSCLEROTIC VASCULAR DISEASE VERSUS CORONARY ARTERY DISEASE

Poster Contributions
Hall C
Monday, March 31, 2014, 9:45 a.m.-10:30 a.m.

Session Title: Statins, Diabetes and Arterial Physiology
Abstract Category: 32. Vascular Medicine: Non Coronal Arterial Disease
Presentation Number: 1251-74

Authors: Rashmi Thapa, Suresh Sharma, Vinodh Jeevanantham, Casper Hu, Taylor Myers, James Vacek, Buddhadeb Dawn, Kamal Gupta, University of Kansas Medical Center, Kansas City, KS, USA

Background: Diabetes Mellitus (DM), Coronary Heart Disease (CHD) and Noncoronary Vascular Diseases (NCVD) have similar risks of cardiovascular events and similar recommendations for lipid control. There is limited data regarding lipid control in DM with NCVD.

Methods: We retrospectively identified 3,336 patients with DM and known atherosclerotic vascular disease between January 2009 and March 2012, for whom lipid levels were available. We compared demographic variables, lipid levels and statin use in diabetics with CHD alone versus diabetics with one or more NCVD (peripheral artery disease, carotid stenosis or abdominal aortic aneurysm). To enable comparison of the doses of various statins, we used statin potency unit where 1 potency unit = 10mg of Simvastatin.

Results: There were 234 patients in DM with NCVD group and 3,102 patients in DM with CHD group. Diabetics with NCVD had higher mean age (70 ± 12 years vs. 68 ± 11 years; p = 0.015) and more females (46% vs 39%; p = 0.025). DM with NCVD group had a higher mean total cholesterol (152 ± 40 mg/dL vs. 146 ± 42 mg/dL; p = 0.019) and higher mean low density lipoprotein (LDL) (86 ± 35 mg/dL vs. 80 ± 34 mg/dL; p = 0.04) with only 70% of the patients achieving an LDL goal of <100mg/dL (compared to 80% in the DM with CHD group; p < 0.001). Similar results were noted for goal LDL < 70 mg/dL. The mean triglycerides, mean high density lipoprotein and mean glycated hemoglobin were not significantly different between the two groups. Statin use was 100% in CHD group vs. 75% in NCVD group (p < 0.001). Use of more potent statins was lower in the NCVD group (Simvastatin use 35% vs. 39%, p < 0.001; Atorvastatin use 13% vs. 24%, p < 0.001; Rosuvastatin use 13% vs. 23%, p < 0.001). Despite lower use of more potent statins, the mean potency unit dose of statin was significantly lower in the NCVD group (5.5 ± 7.7 vs. 7.7 ± 7.8; p < 0.001).

Conclusion: Our study demonstrated lower use and less aggressive application of statins among diabetics with NCVD compared to diabetics with CHD, resulting in higher mean LDL and total cholesterol in the NCVD group. Our study suggests that physicians are more aggressive with lipid control in CHD patients compared to NCVD patients despite concurrent diagnosis of DM.