STATIN THERAPY ADHERENCE AFTER VISUALIZING CORONARY CALCIUM BY CARDIAC COMPUTED TOMOGRAPHY

ACC Moderated Poster Contributions
McCormick Place South, Hall A
Saturday, March 24, 2012, 9:30 a.m.-10:30 a.m.

Session Title: Imaging: CT - Coronary Artery Calcification
Abstract Category: 24. Imaging: CT
Presentation Number: 1109-444

Authors: Nove Kalia, Dong Li, Matthew Budoff, Los Angeles Biomed Research Institute at Harbor UCLA, Torrance, CA, USA, University of Saskatchewan, Saskatoon, Canada

Objectives: The aim of this study was to assess the effect on adherence to statin therapy in patients who underwent coronary artery calcium (CAC) scoring with cardiac computed tomography.

Background: Despite convincing data demonstrating the benefits of HmGCoA inhibitors for both primary and secondary prevention of coronary heart disease, they remain underused. In this study, we assess whether higher CAC scores are associated with increased compliance with statin medications.

Methods: We evaluated 2100 patients who underwent baseline CAC testing and completed a comprehensive follow-up questionnaire. The primary end point was adherence to statin therapy.

Results: The study population consisted of 2100 individuals (72% men, mean age 58 +/- 8 years) who were followed for a mean of 3 +/- 2 years after an initial CAC scan. Overall, statin compliance was lowest (36.2%) among those with CAC = 0, and gradually increased with higher CAC scores (1 to 99, 51.8%; 100 to 399, 56.5%; > or =400, 59.1%; p <0.001 for trend). In multivariable regression analysis, there is a dose-response relationship between increasing CAC score and adherence to statin therapy. In the group that had statin compliance compared to those who were not compliant the mean CAC score was 30% higher (95% CI 0.2-0.3 p<0.001) after being adjusted for age gender and race. In logistical regression analysis those with CAC score of 1-99, 100-400 and >400 as compared to those with a score of 0 were 2.0 (95% CI 2.0-3.5 p<0.001), 2.4 (95% CI 2.0-3.5 p<0.001) and 2.6(95% CI 2.0-3.5 p<0.001) fold respectively more likely to adhere to statin therapy when adjusted for age gender and race.

Conclusion: In conclusion, in addition to risk stratification of individuals, determination of CAC may also improve adherence to statin therapy.