CHANGE IN STATIN THERAPY AFTER CCTA IS ASSOCIATED WITH LOWER LDL-CHOLESTEROL WITHOUT CHANGE IN THREE-YEAR PROGNOSIS

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Background: Coronary Computed Tomography Angiography (CCTA) is an accurate test for coronary artery disease (CAD), yet the impact of the CCTA results upon subsequent medical therapy and risk factors has not been widely reported.

Methods: We identified consecutive patients >18 years of age without known prior CAD who underwent CCTA at two hospitals in Boston from 2004 - 2011 and had complete data on medications before and after. CCTA results were categorized as no CAD, <50% CAD, and ≥ 50% CAD. Electronic medical records and patient interviews were reviewed blinded to CCTA status to assess changes in prescriptions and lab values. Survival analysis was performed to evaluate intensification of statin therapy as a predictor of death, non-fatal myocardial infarction (MI), and late coronary revascularization >90 days post-CCTA, adjusting for age and gender.

Results: 2839 patients with mean follow-up 3.6 years were included. Changes in statin therapy were associated with CCTA findings (Figure 1). Modification of statin therapy was associated with changes in LDL (Figure 1, p < 0.001 comparing the LDL difference pre-and post-CCTA between groups). Intensification of statin therapy after CCTA was not associated with a change in prognosis, adjusted hazard ratio 0.84 (0.58 - 1.23, p = 0.38).

Conclusion: Abnormal CCTA findings are associated with post-test changes in statin therapy. Intensification of statin therapy is associated with a reduction in post-CCTA LDL but no change in prognosis at 3.6 years.