Materials and Methods

Clinical Predictors

A medical history was prospectively recorded for all patients (1-3) by a physician or research nurse, and each patient's risk of future cardiac event was then estimated using National Cholesterol Education Program/Adult Treatment Panel (NCEP/ATP) III guidelines (4, 1). Dyslipidemia was defined as known but untreated dyslipidemia or current treatment with lipid-lowering medications based upon a diagnosis of dyslipidemia in direct accordance to societal guidelines.

Coronary CT Angiography Measures

Coronary CTA image acquisition was performed using single- or dual-source 64-slice CT scanners. All acquisitions and interpretations were performed in direct accordance with the Society of Cardiovascular Computed Tomography Guidelines (5, 6, 1). Using a segment model, each segment was classified as "normal" (no detectable plaque) or as having non-obstructive coronary atherosclerotic plaque (1-49% diameter stenosis). For each patient, the segment score (sum of the coronary segments with coronary atherosclerosis) was calculated (7,8).

Patient Follow-up

Patient follow-up (all-cause mortality) was performed by each local institution by telephone interview with validation of reported death through medical records whenever possible and/or a National death registry.

Statistical Analysis

Statistical analyses were performed using SAS (version 9.2, SAS Institute Inc., Cary, North Carolina), and p value <0.05 was considered statistically significant. Continuous variables were presented as means and standard deviations and if not normally distributed, presented as medians with interquartile range. Categorical variables were presented as frequencies with percentages. For baseline characteristics comparisons, the Wilcoxon rank-sum test was used for continuous variables, and the chi-squared statistic or Fisher's exact test was used for categorical variables.

The prognostic value of non-obstructive CAD by coronary CTA, statin and aspirin therapy was assessed for univariable association as well as multivariable association

with all-cause mortality. Unadjusted comparisons of all-cause mortality according to presence and extent of non-obstructive CAD, NCEP/ATP III risk and therapy were performed on Kaplan-Meier survival curves using log-rank tests. Risk-adjusted analysis was performed using a multivariable Cox proportional hazard model to determine the effect of therapy (aspirin or statin) on incident mortality by controlling for age, gender, CAD pre-test risk (NCEP/ATP III). Cox proportional hazard models were also used to test for interactions between the therapy and CAD group and also in the various subgroups. Model overfitting was carefully considered and the proportional hazards assumption was met in all analyses.

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