Dokumenttyp: journal article

Autor(en) des Beitrags: Min, JK; Dunning, A; Lin, FY; Achenbach, S; Al-Mallah, M; Budoff, MJ; Cademartiri, F; Callister, TQ; Chang, HJ; Cheng, V; Chinnaiyan, K; Chow, BJ; Delago, A; Hadamitzky, M; Hausleiter, J; Kaufmann, P; Maffei, E; Raff, G; Shaw, LJ; Villines, T; Berman, DS; CONFIRM Investigators

Titel des Beitrags: Age- and sex-related differences in all-cause mortality risk based on coronary computed tomography angiography findings results from the International Multicenter CONFIRM (Coronary CT Angiography Evaluation for Clinical Outcomes: An International Multicenter

Abstract: We examined mortality in relation to coronary artery disease (CAD) as assessed by >=64-detector row coronary computed tomography angiography (CCTA). Although CCTA has demonstrated high diagnostic performance for detection and exclusion of obstructive CAD, the prognostic findings of CAD by CCTA have not, to date, been examined for age- and sex-specific outcomes. We evaluated a consecutive cohort of 24,775 patients undergoing >=64-detector row CCTA between 2005 and 2009 without known CAD who met inclusion criteria. In these patients, CAD by CCTA was defined as none (0% stenosis), mild (1% to 49% stenosis), moderate (50% to 69% stenosis), or severe (>=70% stenosis). CAD severity was judged on a per-patient, per-vessel, and per-segment basis. Time to mortality was estimated using multivariable Cox proportional hazards models. At a 2.3 ± 1.1-year follow-up, 404 deaths had occurred. In risk-adjusted analysis, both per-patient obstructive (hazard ratio [HR]: 2.60; 95% confidence interval [CI]: 1.94 to 3.49; p<65 years,
younger patients experienced higher hazards for death for 2-vessel (HR: 4.00; 95% CI: 2.16 to 7.40; p< 0.0001 vs. HR: 2.46; 95% CI: 1.51 to 4.02; p = 0.0003) and 3-vessel (HR: 6.19; 95% CI: 3.43 to 11.2; p< 0.0001 vs. HR: 3.10; 95% CI: 1.95 to 4.92; p< 0.0001) CAD. The relative hazard for 3-vessel CAD (HR: 4.21; 95% CI: 2.47 to 7.18; p< 0.0001 vs. HR: 3.27; 95% CI: 1.96 to 5.45; p< 0.0001) was higher for women as compared with men. Among individuals without known CAD, nonobstructive and obstructive CAD by CCTA are associated with higher rates of mortality, with risk profiles differing for age and sex. Importantly, absence of CAD is associated with a very favorable prognosis.