SSM03-04

Scientific Papers

Long Term Prognostic Utility of Non-obstructive Coronary Artery Disease on CCTA in Diabetics: Results from the International Confirm Registry

Wednesday, 3:30 - 3:40 PM
Location: S502AB

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PURPOSE

In diabetic patients the presence of non-obstructive CAD has been shown to confer a lower risk of MACE and death than obstructive disease through 2 year follow up. The relative long term prognostic value of non-obstructive disease on CCTA in diabetics is however not known.

METHOD AND MATERIALS

From 16 centers, 1823 diabetic patients undergoing CCTA without prior CAD were identified. CAD by CCTA was defined as none (0% stenosis), mild (1% to 49% stenosis) and obstructive (=50% stenosis severity.). CAD severity was judged on a per-patient, per-vessel, and per-segment basis. Time to death, and in a subgroup, time to major adverse cardiovascular event (MACE) -defined as death, myocardial infarction, unstable angina, or late coronary revascularization-were both estimated using multivariable Cox proportional hazards models.

RESULTS

The median age was 61.7±11.2, 54.1% male. At a 5.2±1.6-year follow- up, 246 (13.5%) deaths occurred. In risk-adjusted analysis, both per-patient obstructive (hazard ratio [HR]: 2.1; 95% CI: 1.4-3.2; p<0.001) and non-obstructive (HR: 2.0; 95% CI: 1.3-3.1; p=0.003) CAD were related to Death. Non obstructive disease conferred a similar elevated mortality risk to single vessel obstructive disease (p=0.42). The absence of CAD by CCTA was associated with a low rate of incident mortality (annualized mortality rate: 1.2% (95% CI:0.8-1.7%). MACE was frequent through 5 years and occurred in 295/973 (30.3%) patients. Regarding MACE, both per-patient obstructive (HR: 10.4; 95% CI: 5.9-18.1; p<0.001) and non-obstructive (HR: 4.9; 95% CI: 2.8-8.6; p<0.001) CAD were related to MACE.

CONCLUSION

Among diabetic individuals, non-obstructive and obstructive CAD by CCTA are associated with higher rates of all-cause mortality and MACE when followed to 5 years. Importantly, the relative risk of non-obstructive disease is comparable to single vessel obstructive disease.

CLINICAL RELEVANCE/APPLICATION

Coronary computed tomographic angiography in diabetics can be used for long term prognostication with respect to mortality and major adverse cardiovascular events.