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Titel des Beitrags: Is metabolic syndrome predictive of prevalence, extent, and risk of coronary artery disease beyond its components? Results from the multinational coronary CT angiography evaluation for clinical outcome: an international multicenter registry (CONFIRM).

Abstract: Although metabolic syndrome is associated with increased risk of cardiovascular disease and events, its added prognostic value beyond its components remains unknown. This study compared the prevalence, severity of coronary artery disease (CAD), and prognosis of patients with metabolic syndrome to those with individual metabolic syndrome components. The study cohort consisted of 27125 consecutive individuals who underwent >= 64-detector row coronary CT angiography (CCTA) at 12 centers from 2003 to 2009. Metabolic syndrome was defined as per NCEP/ATP III criteria. Metabolic syndrome patients (n = 690) were matched 1:1:1 to those with 1 component (n = 690) and 2 components (n = 690) of metabolic
syndrome for age, sex, smoking status, and family history of premature CAD using propensity scoring. Major adverse cardiac events (MACE) were defined by a composite of myocardial infarction (MI), acute coronary syndrome, mortality and late target vessel revascularization. Patients with 1 component of metabolic syndrome manifested lower rates of obstructive 1-, 2-, and 3-vessel/left main disease compared to metabolic syndrome patients (9.4% vs 13.8%, 2.6% vs 4.5%, and 1.0% vs 2.3%, respectively; p 0.05). At 2.5 years, metabolic syndrome patients experienced a higher rate of MACE compared to patients with 1 component (4.4% vs 1.6%; p = 0.002), while no difference observed compared to individuals with 2 components (4.4% vs 3.2% p = 0.25) of metabolic syndrome. In conclusion, Metabolic syndrome patients have significantly greater prevalence, severity, and prognosis of CAD compared to patients with 1 but not 2 components of metabolic syndrome.