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Stable Ischemic Heart Disease

HIGH RATE OF PROGRESSION TO DYSGLYCEMIA IN A SECONDARY PREVENTION COHORT OVER FIVE YEARS: FINDINGS FROM THE PRACTICE REGISTRY

Poster Contributions

Poster Hall B1

Saturday, March 14, 2015, 10:00 a.m.-10:45 a.m.

Session Title: Risk Markers, CAD, Prognosis

Abstract Category: 25. Stable Ischemic Heart Disease: Basic

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Authors: *Milan Gupta, Sadaf I. Sheikh, Sarika Gill-David, Sheriar Hirjikaka, Michelle Tsigoulis, Harpreet S. Bajaj, CCRN, Brampton, Canada*

Background: The prognosis in patients with coronary artery disease (CAD) is significantly worsened by concomitant diabetes or dysglycemia. The rate of dysglycemia progression in normoglycemic patients with stable CAD in contemporary practice is unclear. We obtained estimates of incident dysglycemia and predictors of transition to dysglycemia in the PRACTICE Registry, a cohort of stable CAD patients followed prospectively for 5 years.

Methods: We enrolled 545 subjects with a history of CAD (mean age 63 years, body mass index (BMI) 27.3, waist circumference (WC) 102 cm, male 79%,) over a one-year period. Evidence-based treatments included ASA 84%, ACEi 66%, BB 64% and Statin 87%. Subjects were prospectively followed annually for 5 years at a single center in Brampton, Canada. Assessments included history, anthropometric measurements, and biochemistry. Pre-diabetes was defined as fasting glucose (FPG) = 110-125 mg/dl or HbA1c = 6.0-6.4%. The primary outcome was incident dysglycemia defined as the composite of pre-diabetes or type 2 diabetes (T2D) among normoglycemic subjects at baseline, as well as progression to T2D among subjects with pre-diabetes at baseline.

Results: 267 subjects had normoglycemia and 64 had pre-diabetes at baseline. Dysglycemia progression was 55.6% over 5 years (169/304 subjects with evaluable data). Significant predictors for dysglycemia progression included BMI, WC, waist-hip ratio, FPG, triglyceride and LDL levels at baseline. On multivariate Cox-proportional odds models (stepwise adjusting for baseline demographics and biochemistry), BMI, FPG and triglyceride levels were independently associated with dysglycemia progression.

Conclusion: A high rate of dysglycemia progression was observed in this prospective secondary prevention cohort, despite annual reinforcement of optimal lifestyle behaviors and high use of evidence-based treatments. The rate of progression observed surpasses that noted in earlier studies in primary and secondary prevention. Baseline BMI and levels of FPG and triglycerides were independently associated with dysglycemia progression. Additional strategies are required to reduce the burden of diabetes in secondary prevention.