GENDER SIGNIFICANTLY MODULATES THE ASSOCIATION OF HBA1C WITH ANGIOGRAPHICALLY DIAGNOSED CORONARY ATHEROSCLEROSIS AMONG SUBJECTS WITHOUT PREVIOUSLY KNOWN DIABETES

Poster Contributions
Hall C
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Background: The association of HbA1c with angiographically determined coronary atherosclerosis is unclear. In particular, it has not been investigated so far whether gender modulates the association of HbA1c with angiographically diagnosed coronary atherosclerosis. We therefore aimed at clarifying this issue.

Methods: We enrolled a large consecutive series of 1449 patients, 484 women and 965 men, who did not have previously known diabetes and who underwent coronary angiography for the evaluation of stable coronary artery disease. Significant coronary atherosclerosis was diagnosed in the presence of significant coronary stenoses with lumen narrowing ≥50%.

Results: Among women, 36.4%, 56.2%, and 7.4% and among men 44.2%, 46.6%, and 9.1% had HbA1c values of <5.7% (normal according to ADA criteria), 5.7-6.4% (at risk of diabetes according to ADA criteria), and ≥6.5% (diabetes according to ADA criteria), respectively. The prevalence of angiographically diagnosed coronary atherosclerosis in these HbA1c categories was 31.2%, 38.2%, and 47.2% among women (p_trend = 0.041) and 63.2%, 65.3% and 64.8% among men (p_trend = 0.589). In logistic regression models, HbA1c as a continuous variable was a strong predictor of coronary atherosclerosis among women (adjusted OR for a 1% increase in HbA1c = 1.61 [95% CI 1.07-2.43]; p = 0.024) but not among men (OR = 0.92 [0.74-1.13]; p = 0.416). An interaction term gender x HbA1c was significant (p = 0.022), indicating that HbA1c was a significantly stronger predictor of coronary atherosclerosis among women than among men.

Conclusions: We conclude that gender significantly modulates the association of HbA1c with angiographically diagnosed coronary atherosclerosis among subjects without previously known diabetes.