**Haptoglobin Phenotype does not Predict Extent of Valvular Calcification in Diabetic Subjects**

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Background: Haptoglobin (Hp) phenotype 2-2 offers reduced protection against hemoglobin-driven oxidative stress compared to Hp phenotypes 1-1 and 1-2 and predicts increased cardiovascular events in diabetes mellitus. Pathophysiology of aortic stenosis is associated with increased oxidative stress and is more common in diabetes. We postulated that diabetics with the Hp 2-2 phenotype would have a higher aortic valve (AV) calcium score than diabetics with other phenotypes.
Methods: Aortic valve calcium scores were measured by 64-slice computed tomography in 196 subjects with type-2 diabetes and no known heart disease. Haptoglobin phenotype was correlated with calcium scores.
Results: Aortic valve calcification was detected in 55% of the subjects. Haptoglobin phenotype was 1-1 in 13%, 1-2 in 44% and 2-2 in 43%. On multivariate analysis, AV calcification was predicted by coronary calcium score >100 AU (OR 5.3, 95% CI 2.09-13.4), mitral annular calcification >0 (OR 4.6, 95% CI 1.9-11.3) and older age (OR 1.15/year, 95% CI 1.07-1.23). Haptoglobin phenotype did not predict AV calcification.
Conclusions: The presence of coronary artery and mitral annular calcification, as well as increasing age, were predictors of AV calcification. Aortic valve calcification was not associated with Hp phenotype. Haptoglobin phenotype does not appear to play a role in the development of degenerative changes in the aortic valve.