IMPACT OF GLYCOSYLATED HEMOGLOBIN EVALUATION ON THE DIAGNOSIS OF GLUCOSE METABOLISM ABNORMALITIES IN PATIENTS WITH CORONARY ARTERY DISEASE

ACC Moderated Poster Contributions
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Background: According to the guidelines, glucose metabolism abnormalities (GMA) should be investigated with an oral glucose tolerance test (OGTT) in all non diabetic patients with coronary artery disease. Recently, glycosylated hemoglobin (HbA1c) was introduced as an additional diagnostic criteria for diabetes and pre-diabetes. The impact of HbA1c evaluation in GMA screening in patients with CAD is not known.

Methods: 225 patients (mean age 61.1 +/-10.8 years; 170 males) previously submitted to percutaneous coronary intervention and without previously known diabetes were included. GMA were evaluated with an OGTT (performed and classified according to the WHO criteria - normal, impaired fasting glycemia, impaired glucose tolerance and diabetes). HbA1c was measured and the results were classified according to ADA criteria (normal < 5.6%; pre-diabetes 5.7 to 6.4%; diabetes >= 6.5%).

Results: The OGTT identified 52 patients (23.1%) with IFG, 45 (20.0%) with IGT and 34 (15.1%) with diabetes; only 94 patients (41.8%) had a normal test. HbA1c values were normal in 106 patients (47.1%) and identified 106 (47.1%) pre-diabetic and 13 (5.8%) diabetic patients. However, HbA1c allowed the reclassification of 33 (15.0%) patients with a normal OGTT (5 new cases of diabetes and 28 new cases of pre-diabetes). Considered together, the OGTT and HbA1c identified 39 (17.3%) patients with diabetes and 125 (55.6%) with pre-diabetes, leaving only 61 (27.1%) with a normal glucose metabolism. By univariate analysis, there were no epidemiological or CAD factors affecting the HbA1c ability to reclassify the GMA.

Conclusions: HbA1c evaluation allows the identification of a relevant number of patients (+ 15%) with GMA, not identified by the OGTT. Considering the known impact that GMA have on CAD prognosis, HbA1c should be routinely included in all non diabetic CAD patients.