**DIABETOLOGY &
METABOLIC SYNDROME**

MEETING ABSTRACT

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Assessment of glycohemoglobin, plasma glucose curve and C-reactive protein as complementary predictors to diagnose prediabetes: a transversal study

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Background
The shape of the plasma glucose curve has been considered as a predictor for diabetes in the future, and it could be used to diagnose prediabetes.

Objective
This study aims to assess the relationship between glycohemoglobin, C-reactive protein (CRP), oxidative stress markers levels and the shape of the plasma glucose curve during the oral glucose tolerance test (OGTT).

Material and methods
A transversal study was carried out with 59 non-diabetic subjects with increased diabetes risk who underwent an OGTT to analyze glycemia, insulin, glycohemoglobin, lipids, C-reactive protein, malondialdehyde and carbonyl protein. Glycemia was assessed at fasting, 30, 60 and 120 min.

Results
Overall, 26 individuals had prediabetes, 28 did not have prediabetes (22 had 1h-OGTT>fasting glycemia, 6 had 1h-OGTT≤fasting glycemia) and 5 had diabetes. The 1h-OGTT≤fasting glycemia and diabetes groups were excluded, and then a non-parametric test (Mann-Whitney U test) was used to analyze data. There were no statistical differences between 1h-OGTT>fasting glycemia and prediabetes groups in the analysis of glycohemoglobin [5.15 (4.8-5.4); 5.20 (5.10-5.4); p=0.17], C-reactive protein

[3.70 (1.8-8.9); 3.96 (1.45-7.13); p=0.38], lipids and malondialdehyde, but there were differences in fasting, 30, 60 and 120 min glycemia, insulin level [11(8-13); 13(10-18); p=0.04], Homeostatic Model Assessment-IR [2.45(1.93-2.95); 3.30(2.51-5.02); p=0.00] and carbonyl protein [0.48 (0.42-0.58); 0.57 (0.5-0.76); p=0.02].

Conclusions
These results identify predictors to increased cardiovascular and diabetes risk in individuals without prediabetes and with 1h-OGTT>fasting glycemia, which are similar to predictors in individuals with prediabetes established by the American Diabetes Association criteria.

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