

## Endocrinología, Diabetes y Nutrición



## 214 - REGRESSION FROM PREDIABETES TO NORMOGLYCEMIA IN SUBJECTS AT HIGH RISK OF TYPE 2 DIABETES

J.C. Lizarzaburu-Robles<sup>1</sup>, A. Garro-Mendiola<sup>2</sup>, M. Lazo-Porras<sup>3</sup>, A. Paniagua<sup>4</sup>, C. Vázquez<sup>4</sup>, S. Mas-Fontao<sup>5</sup>, I. Mahíllo-Fernández<sup>6</sup>, F. Vento<sup>2</sup> and Ó. Lorenzo<sup>5</sup>

<sup>1</sup>Hospital Central de la Fuerza Aérea del Perú, Lima, Perú, Programa de Doctorado, Universidad Autónoma de Madrid. <sup>2</sup>Hospital Central de la Fuerza Aérea del Perú, Lima, Perú. <sup>3</sup>Crónicas, Universidad Peruana Cayetano Heredia, Lima, Perú. <sup>4</sup>Departamento de Endocrinología y Nutrición, Hospital Universitario Fundación Jiménez Díaz, Madrid. <sup>5</sup>Laboratorio de Nefrología, Hipertensión, Diabetes y Patología Vascular, IIS-Fundación Jiménez Díaz, UAM, Madrid. <sup>6</sup>Unidad de Bioestadística y Epidemiología, Hospital Universitario, Fundación Jiménez Díaz.

## Resumen

**Introduction:** Prediabetes state carries risk of cardiometabolic complication but also would define a risk state by itself. The regression of prediabetes to normoglycemia is accompanied by an improvement in cardiometabolic risk-factors. We evaluated the regression to normoglycemia (RNG) from prediabetes state in a high-risk sample at two hospitals, in Perú and Spain.

**Methods:** 477 patients with Impaired Fasting Glucose (IFG), were selected. 264 of them were able to complete a 5-year follow-up after performance an OGTT. IFG and/or HbA1c defined prediabetes, after OGTT, according to the American Diabetes Association. Prediabetes regression was considered if Fasting glucose < 100 mg/dl and HbA1c < 5.7% after follow-up. We describe the frequencies and associations using Student's t-test and  $\chi^2$  test. Odds ratio (OR) was estimated using logistic-regression with IC95%s.

**Results:** Mean-age was  $57 \pm 11.4$  and 67.8% were female. 43 subjects (16.3%) RNG, 142 (54%) remained in prediabetes and 78 (29.7%) progress to T2DM. We found a significant differences in basal glycemia (BG), basal-HbA1c, BMI and creatinine measurement when we compare the final status of the three groups at the end of the follow-up (p < 0.001, p = 0.030, p = 0.018 and p = 0.021 respectively). However, when comparing patients who RNG with those who remain in prediabetes, the significance was only in BG (p = 0.024). Finally, by logistic-regression analysis, we found positive association in the RNG group compared to those who did not, for BMI (OR 1.07, 95%CI (1.65-5.88); p = 0.047) and basal glomerular filtration rate (CKD-EPI) (OR 1.47, 95%CI (1.04-2.20); p = 0.008).

**Conclusions:** Several heterogeneous individual characteristics may contribute to the regression to normoglycemia in people with prediabetes. However, according to our results, BMI and CKD-EPI may are potential determinants of regression to normoglycemia in high-risk individuals with any specific intervention.