

**PT-01 BASELINE FACTORS ASSOCIATED WITH INSULIN RESISTANCE IN VIROLOGICALLY SUPPRESSED PEOPLE WITH HIV PARTICIPATING IN THE PASO-DOBLE (GESIDA 11720) RANDOMIZED CLINICAL TRIAL.**

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**Background:** We assessed baseline factors associated with insulin resistance (IR) in virologically suppressed PWH in PASO-DOBLE trial (ClinicalTrials.gov NCT04884139).

**Methods:** Stable PWH  $\geq 18$  years with HIV RNA  $< 50$  copies/mL  $\geq 24$  weeks, receiving any antiretroviral therapy (ART)  $> 1$  pill/day or 1 pill/day including cobicistat-boosting, efavirenz, or TDF and no prior experience of bictegravir or dolutegravir were included in PASO-DOBLE trial. PWH with antidiabetic drugs were excluded from HOMA-IR risk factor analysis. According to Spanish population data (Gayoso-Diz et al. BMC Endocrine Disorders 2013), IR was defined by HOMA-IR  $> 2$ ; a sensitivity analysis using HOMA-IR  $>$ percentil 75% was also performed. Demographic, HIV and ART characteristics, smoking and alcohol consumption, vital signs, fasting chemistry and blood cells, diet quality and energy expenditure estimations, and HIV Symptom Index, Hospital Anxiety and Depression Scale (HADS), and Pittsburg sleep quality index (PSQI) tests were evaluated through multivariate logistic regression analyses.

**Results:** Among 554 PWH randomized, 531 (96%) had HOMA-IR available. Median (IQR) data (n=531) were: age 50 (40-57.3) years; weight 72.6 (63.0-82.3) kg; BMI 25.1 (22.2-28.2) kg/m<sup>2</sup>; BP systolic 124 (113-136) and diastolic 77 (70-85) mmHg; resting heart rate 74 (66-83) beats/minute; years on ART 11.4 (6.9-19.5); months with virological suppression 101 (42-166); 692 (490-886) CD4/mm<sup>3</sup>; CD4/CD8 ratio 1.1 (0.8-1.4); estimated total energy expenditure 1634.6 (664.0-3084.2) calories/day. Scores were: HADS anxiety 5 (2-7) and depression 3 (1-5); total HIV symptoms index 11 (4-20); and PSQI 5 (3-8). There were 143 (26.9%) women at birth; 384 (72.3%) Caucasian; 462 (87%) with an at least partially adequate diet, and 228 (42.9%) or 254 (47.8%) consuming tobacco or alcohol, respectively. ART was as follows: 1) first NRTI: ABC 106

(20.0%), TDF 190 (35.8%), TAF 145 (27.3%), none 90 (16.9%); 2) second NRTI: 3TC 130 (24.5%), FTC 354 (66.7%), none 47 (8.9%); and 3) anchor drug: NNRTI 269 (50.7%), PI 167 (31.55), INSTI 89 (16.8%), none 6 (1.1%). 302 (56.9%) PWH had HOMA-IR >2, and 132 (24.9%) HOMA-IR >3.8 (percentil 75%). 15 (3%) PWH on antidiabetic drugs were excluded from HOMA-IR multivariate analysis. Independent factors for HOMA-IR >2 (OR, 95%CI) (n=516) were: age (per unit) 1.028 (1.005-1.051), BMI (per unit) 1.124 (1.069-1.182), resting heart rate (per unit) 1.021 (1.004-1.039), triglycerides (per unit) 1.012 (1.008-1.016), years on ART 1.057 (1.021-1.095) and TAF-based ART 1.629 (1.017-2.611).

**Conclusions:** General (age, BMI, resting heart rate, and triglycerides), and ART (years on ART, and TAF-based ART) factors were independently associated with IR in this population.