**ELEVATED AMBULATORY PULSE PRESSURE IN HYPERTENSIVE PATIENTS WITH TYPE 2 DIABETES: THE HYGIA PROJECT**

D.E. Ayala1, A. Moya2, S. Gomara2, J.J. Crespo3, M.C. Castineira4, J.J. Sanchez2,

M. Dominguez3, A. Mojon1, J.R. Fernandez1, **R.C. Hermida1**

1University of Vigo, Vigo, 2Servicio Galego de Saude, Pontevedra, 3Servicio Galego de Saude, Vigo, 4Servicio Galego de Saude, Lugo, Spain

Objectives: Elevated pulse pressure (PP) is an independent marker of cardiovascular disease (CVD) risk. We assessed the circadian PP pattern in hypertensive patients with and without diabetes enrolled in the Hygia Project, designed to evaluate prospectively CVD risk by 48h ambulatory BP monitoring (ABPM) in primary care centers of Northwest Spain.

Methods: This study involved 12765 hypertensive patients (6797 men/5968 women), 58.1+/-14.1 years of age. Among them, 2954 (1799 men/1155 women) had type 2 diabetes. At the time of study, 525/3314 patients with/without diabetes were untreated, and the remaining 2429/6497 patients were ingesting hypertension medications.

Results: In patients with diabetes, ambulatory systolic BP (SBP) was significantly elevated (P<0.001), mainly during nighttime sleep, independent of treatment. Ambulatory diastolic BP (DBP), however, was significantly higher (P<0.001) in patients without diabetes, mainly during daytime. Differing trends for SBP and DBP between groups resulted in large differences in ambulatory PP, it being significantly greater (P<0.001) for the entire 24h in patients with diabetes. The proportion of patients with a 48h PP mean >53 mmHg, and thus at increased CVD risk, differed significantly between groups, 63% in diabetes vs. 34% in patients without diabetes (P<0.001).

Conclusions: The elevated ambulatory PP levels of patients with diabetes may help explain the enhanced CVD risk associated with this condition, and suggest the use of ABPM for proper evaluation of CVD risk in diabetes, as well as a means to establish the most adequate therapeutic scheme to properly decrease ambulatory PP and to increase CVD event-free survival.