

[PP.45.463] EFFECTS OF ANTIHYPERTENSIVE THERAPY ON GLUCOSE AND INSULIN METABOLISM AND ON LEFT VENTRICULAR MASS IN A RANDOMIZED, DOUBLE-BLIND, CONTROLLED STUDY OF 41 ELDERLY OBESE HYPERTENSIVES

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Glucose and insulin (GI) levels are associated with left ventricular mass (LVM) in insulin-resistant individuals. Obesity and cardiovascular disease are associated and up to 60% of overweight or obese patients have hypertension (OH). Antihypertensive therapy (AD) have different effects on GI metabolism (GIM) and on LVM. To evaluate whether the effects of AD on LVM and on GIM are associated, we compared telmisartan (T) and aliskiren (A) on these parameters in a group of insulin-resistant 43 elderly OH, aged 68 ± 6 year, with a body mass index of 32.8 ± 5.0 kg/m², free of coronary or valvular heart disease, with normal LV function, randomized to treatment with T ($n = 22$) or A ($n = 21$). Echocardiographic LVM corrected for height (LVM/height), GIM (3-h intravenous glucose tolerance test) and albuminuria (Al) were measured after 4–6 weeks of washout and 6 months of treatment. Baseline characteristics were similar in both groups. T and A effectively reduced blood pressure (BP) (from $149 \pm 13/98 \pm 4$ to $127 \pm 8/82 \pm 6$ mmHg and from $148 \pm 9/98 \pm 4$ to $129 \pm 9/82 \pm 6$ mmHg, respectively, $p = 0.002$). T significantly worsened GIM parameters, fasting glucose levels (5.3 ± 0.9 to 6.0 ± 1.5 mmol/l; $p = 0.003$), fasting insulin levels (121 ± 121 to 189 ± 228 pmol/l; $p = 0.03$), and most other relevant metabolic measures ($p < 0.05$ for all). A did not affect GIM. T did not affect LVM/height ($p = 0.8$), whereas A significantly reduced LVM/height ($p = 0.04$). Upon BP control, Al was markedly decreased in both group ($p = 0.002$). In the absence of weight loss, most patients required combined AD to control their BP, regardless of their body fat distribution pattern. Optimal target BP and normal Al were achieved in the group T as a

whole and in both OH groups, while benefits to cardiac structure were of a smaller magnitude. In high-risk OH T provides significantly greater BP lowering vs. A throughout the 24-h dosing interval, particularly during the hazardous early morning hours. Therefore in elderly OH adequate and similar BP control was achieved with T and A; however, A but not T was associated with a more favorable GIM profile and led to a significant regression of LVM.

Citation: De Rosa M., Ruggiero D., Scatteia A., Scudiero L., Paglia A., Pirozzi F., Sasso L., EFFECTS OF ANTIHYPERTENSIVE THERAPY ON GLUCOSE AND INSULIN METABOLISM AND ON LEFT VENTRICULAR MASS IN A RANDOMIZED, DOUBLE-BLIND, CONTROLLED STUDY OF 41 ELDERLY OBESE HYPERTENSIVES, *Journal of Hypertension*, Vol 30, e-Supplement A, April 2012, e617