KIDNEY SUBCLINICAL LESIONS IN HYPERTENSION PHENOTYPES DEFINED BY HOME BLOOD PRESSURE MONITORING AMONG YOUNG ADULTS ENROLLED IN A FAMILY HEALTH STRATEGY UNIT

Inah Maria Drummond Pecly, Ana Cristina Tenorio C. Fernandes, Rafael Barbosa Da S. Bica, Vitoria Santa Marinha Flumingnan, Beatriz Deberaldini Marinho, Luisa Leite Vaz Da Silva, Rodney Barberá Boghossian, Michelle Felipe Falcão, Valter Correa Branco Neto, Heito De O. M. Rego Bandeira, Carlos Augusto Parente M. Moura, Nathalia Rossilho Ushijima, Elizabeth Silaid Muxfeldt. Universidade Estácio De Sá, Medicine Course Campus Presidente Vargas, Rio de Janeiro, BRAZIL

Objective: To assess kidney subclinical lesions among different hypertension (HTN) phenotypes identified by Home Blood Pressure Monitoring (HBPM) in an adult population enrolled in a Family Health Strategy unit

Design and method: Cross-sectional, populational study with adults between 20–50 years old enrolled in a Family Health Strategy unit in a metropolis. Sociodemographic, anthropometric and CV risk factors were registered. Office blood pressure (BP) was the average of two consecutive measurements, and HBPM followed a 7-day protocol. HBPM < 135x85 mmHg and office BP < 140x90mmHg were considered normal, identifying four phenotypes: normotension (controlled office BP and HBPM); white-coat hypertension (uncontrolled office BP and controlled HBPM); masked hypertension (controlled office BP and uncontrolled HBPM) and sustained hypertension (uncontrolled office BP and HBPM). Albuminuria was dosed in an isolated urine sample whereas glomerular filtration rate was calculated by CKD Epi formula using serum creatinine.

Results: A total of 483 individuals were evaluated (39% male; mean age: 37.6 ± 8.8 years). More often, individuals with white-coat hypertension (9.3%) are male, with greater neck circumference and higher prevalence of metabolic syndrome. Individuals with masked hypertension (10%) are more obese, with increased neck and waist circumferences whereas those who present sustained hypertension are predominantly male, more obese, with increased neck and waist circumferences and higher prevalence of diabetes and metabolic syndrome. Analyzing four phenotypes, a progressive albuminuria increase was observed among normotensive patients: white-coat hypertension 4.0 ± 2.2; masked hypertension 5.3 ± 3.4 and sustained hypertension 7.1 ± 1.4 mg/g creatinine. We also observed an increased serum creatinine and decreased GFR: white-coat hypertension 0.74 ± 0.16/132 ± 34; masked hypertension 0.79 ± 0.17/123 ± 28; sustained hypertension 0.81 ± 0.32/120 ± 59, respectively, although without statistical significance.

Conclusions: The performance of HBPM refined HTN diagnosis and was able to early identify a progressive worsening of kidney function parameters in the different phenotypes.