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**ASSOCIATION BETWEEN BLOOD PRESSURE PROFILES BASED ON ANKLE-BRACHIAL INDEX AND ECHOCARDIOGRAPHIC VARIABLES OF LEFT VENTRICULAR HYPERTROPHY AND DIASTOLIC FUNCTION**

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**Background:** The ankle-brachial index (ABI) is useful in the diagnosis of peripheral arterial occlusive disease (PAOD), being recognized as a marker of systemic atherosclerosis and could be incorporated in the risk stratification of hypertensive patients.

**Objectives:** Evaluate the association between blood pressure (BP) profiles of hypertensive patients based on ABI and echocardiographic variables of LHV and diastolic function.

**Methods:** Cross-sectional study that included patients from outpatient hypertensive clinic. ABI was measured by doppler vascular and the cutoff point for the diagnosis of PAOD was  $\leq 0.90$ . Patients were classified in four hypertensive profiles: controlled blood pressure (BP) with and without PAOD and uncontrolled BP with and without PAOD.

**Results:** Analysis included 458 patients: 67% female, 68% white, mean age  $58 \pm 12$  years, 44% were smokers or ex-smokers and 32.6% were diabetic. Abnormal ABI was detected in 106 patients (23%). The inclusion of this index in the evaluation of hypertensive patients allowed to identify a differentiated phenotype in 24 patients with controlled BP (20%) and 82 with uncontrolled BP (35%). Among the echocardiographic variables, only diastolic function had a statistically significant difference between groups of both normal and abnormal ABI among patients with controlled BP as those with uncontrolled BP. There were no differences between hypertensive profiles and measurements of left ventricular hypertrophy. In the logistic regression model, the association between diastolic function and altered ABI lost statistical significance. Age and pulse pressure remained significantly associated with diastolic function: OR = 1.02 (95% CI: 1.003 to 1.03,  $p = 0.02$ ) and OR = 1.05 (95% CI: 1.02 to 1.07,  $p < 0.001$ ), respectively.

**Conclusions:** The results of this study indicate that 23% of hypertensive patients evaluated in an outpatient hypertension clinic have PAOD assessed by ABI. Among patients with controlled and uncontrolled BP, 20% and 35%, respectively, could be reclassified as higher cardiovascular risk. However, the inclusion of ABI in the routine initial evaluation of hypertensive patients did not add information to a better risk stratification considering echocardiography parameters of LHV and diastolic function.