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PREVENTION OF CARDIOVASCULAR DISEASE IN PATIENTS WITH PREHYPERTENSION: PREVER PREVENTION TRIAL – PRELIMINARY FINDINGS OF THE LYFESTYLE INTERVENTION PHASE

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Background: Individuals with blood pressure within prehypertensive levels are at higher risk of developing hypertension and presenting cardiovascular disease. The effectiveness of interventions to preventing these outcomes was scarcely investigated to date.

Objective: The aim of this study was describe the preliminary findings of the enrollment phase of the PREVER prevention trial.

Methods: PREVER prevention is a double blind, multicenter, randomized clinical trial of effectiveness of non-drug and drug treatment to prevent hypertension and target organ damage among individuals with prehypertension. It was conducted in 22 centers distributed in 10 Brazilian states. Participants were selected through several approaches (media advertisings, screening in factories, personnel from hospital, universities, shopping centers) and had blood pressure within prehypertensive levels (120 to 139 mmHg of systolic blood pressure or 80-89 mmHg of diastolic blood pressure) confirmed in two visits in the clinics of the study. Socio-demographic, lifestyle, and health history were collected through a standardized questionnaire. BP measurements were carried out using an oscillometric monitor, and anthropometric measurements were taken in duplicate. Lifestyle intervention (LSI) was applied to all participants for three months. Participants with target organ damage were excluded. A second assessment of BP was taken 15 days after, and individuals with values <120/80 mmHg or ≥140/90 mmHg were also excluded. Individual confirmed as prehypertensive after LSI were randomized to receive chlorthalidone + amiloride (12.5 + 5 mg) or placebo.

Results: 4.867 volunteers were screened and 1.516 were evaluated for enrollment. Of those 256 (16.8%) were excluded for BP ≥140/90 mmHg, 119 (7.8%) for BP <120/80 mmHg and 57 (3.7%) for other reasons. In total, 1.084 volunteers were enrolled in LSI phase. After revaluation, 348 were excluded: 121 (11.1%) had abnormal laboratory results, 89 (8.2%) developed hypertension, and 138 (12.7%) had their BP <120/80 mmHg. A total of 736 participants (67.9% of those enrolled on the LSI phase) were randomized.

Conclusion: Two thirds of volunteers enrolled in the lifestyle intervention phase of the PREVER prevention trial were randomized. Approximately 20% of the participants became hypertensive or had blood pressure reduced to less than 120/80 mmHg after three months of lifestyle intervention.