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THE EFFECT OF ANTIHYPERTENSIVE MEDICATION AND EXERCISE TRAINING ON FUNCTIONAL STATUS IN HYPERTENSIVE OLDER ADULTS

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KEYWORDS: Diuretics; Calcium channel blockers; β - blockers; Exercise; Functional Status.

INTRODUCTION

Over the last decade, an increasingly prevalence of functionally-limited hypertensive individuals⁽¹⁾, highlights the need to identify interventions capable to reduce hypertension-aging- disability burden and maximize an healthy aging⁽²⁾. Thus, in context of the preceding trends, the aims of the present study is to compare the effect of three types of antihypertensive treatment in response to chronic exercise training on functional status in independently hypertensive older adults with comorbidities: *i*) thiazide diuretic's medication (D); *ii*) calcium channel blockers (CCB); *iii*) β - blockers medication (β B).

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METHODS

This 2-year un-randomized longitudinal cohort study included 96 hypertensive older adults that underwent one of the following 3 conditions: *i*) thiazide- related diuretics medication (D; $n=33$); *ii*) calcium channel blockers medication (CCB; $n = 23$); *iii*) and β -blockers medication (β B; $n = 40$). Baseline and follow-up evaluations included the Senior Fitness Test battery, Short Form Health Survey 36 (SF-36), the health history questionnaires, anthropometric and hemodynamic profile. Results All groups improved the physical functional status, particularly upper and lower body strength and aerobic endurance and systolic blood pressure. The D and β B groups also improved the waist circumference and body mass. The

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CCB decreased total cholesterol ($P = 0,028$), presented better physical functioning, physical component score but also augmented bodily pain. The βB group decreased triglycerides ($P = 0.013$). No group differences were found.

CONCLUSIONS

Functional status improves with antihypertensive medication jointly with exercise training. Independently of the antihypertensive medication choice, exercise training plus antihypertensive therapy should be recommended into the standard prescription practice to reduce the rate of physical disability among hypertensive older adults.

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