**THERAPEUTIC, PREVENTIVE AND PROGNOSTIC ASPECTS OF EXERCISE IN HYPERTENSION**

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Most studies support that regular exercise lowers blood pressure (BP) in hypertensive individuals by approximately 4-10 mm Hg in systolic and 3-8 mm Hg in diastolic BP regardless of age, race or gender. Recent findings also support that exercise has preventive and prognostic qualities. The age-related increase in arterial stiffness and BP are not inevitable, but a consequence of lifestyle characterized unhealthy dietary habits and physical inactivity. In prehypertensive veterans (n=2,303), the risk for developing hypertension was 66% higher (hazard ratio [HR], 1.66; 95% CI, 1.2 to 2.2) for the Low-Fit and, 72% higher (HR, 1.72; 95% CI, 1.2 to 2.3 for the Least-Fit individuals compared to the High-Fit. The exaggerated increase in BP observed in some individuals during exercise is adversely associated with end-organ damage. In our study of 790 prehypertensive individuals, exercise systolic BP at the workload of about 5 METs was the strongest predictor of left ventricular hypertrophy (LVH). Individuals who achieved a systolic BP ¡Ý150 mm Hg had significantly greater cardiac wall thickness, left ventricular mass (LVM) index, and lower exercise capacity compared with those with systolic BP <150 mm Hg. Furthermore, the risk of LVH increased 4-fold for every 10-mm Hg incremental rise in the SBP>150 mm Hg. The exaggerated rise in BP during exercise may be modulated by fitness. Exercise BP decrease significantly in hypertensive individuals who completed 16 weeks of aerobic exercise. The exercise capacity-LVM index association was strong and inverse. The risk for LVH was 42% lower for every 1-MET increase in exercise capacity. We have also reported an inverse, independent, and graded association between exercise capacity and mortality risk in 4,631 hypertensive veterans with multiple cardiovascular risk factors. Mortality risk was 13% lower for every 1-MET increase in exercise capacity.