Effects of enalapril or nifedipine on muscle strength or functional capacity in elderly subjects. A double blind trial

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Introduction. The inhibition of angiotensin-converting enzyme could be useful to avoid sarcopenia in the elderly. Materials and methods. We compared in a prospective double blind trial, the effects of treatment with enalapril or nifedipine on muscle performance in hypertensive elderly subjects. Patients were followed for nine months, and at baseline, 4.5 months and the end of follow-up, quadriceps and hand grip muscle strength, walking capacity, timed up and go and the short physical performance test were measured. Results. During follow-up, more subjects on nifedipine than on enalapril discontinued the medication due to side-effects. No differences in the evolution of muscle strength, walking capacity or functional measures were observed. At nine months, plasma angiotensin-converting enzyme activity decreased by 6.0±2.5 U/L among patients on enalapril and increased by 8.5±4.2 U/L (p<0.001) among patients on nifedipine. Conclusion. In this group of elderly subjects, enalapril was not s