Effect of intermittent hypoxic conditioning on inflammatory biomarkers in older adults [

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Analítica

Abstract: Ageing is associated with chronic low-grade inflammation and with a decrease in muscle mass and strength. The aim of the study was to evaluate the effect of a resistance training programme in conditions of intermittent hypoxia on inflammatory biomarkers in older people. A total of 54 older adults (aged 6575 years), who voluntarily participated in the study, were randomly divided into three groups: the control (CON) group, the resistance training normoxia (RTN) group that performed resistance training in normoxia and resistance training hypoxia (RTH) group that trained under hypoxic conditions at a simulated altitude of 2500 m above sea level. The training programme that was carried out during 24 weeks was similar in both experimental groups and consisted of a full-body workout with elastic bands and kettlebells (three sets x 1215 reps). Blood inflammatory parameters (CRP, VCAM-1, IL-6, IL-8 and IL-10) were analysed before and after the intervention. After the resistance training programme, a significant decrease in CRP and IL-8 levels was observed, as well as an increase in IL-10 levels, both in normoxia and hypoxia. These results show that resistance training, either in conditions of normoxia or hypoxia, is useful to deal with the chronic inflammation associated with ageing.

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