研究業績 英文表記

和文	
表題	高齢者におけるホールドリラックスストレッチングとスタティックストレッチングの即時効果 の比較
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英文	
Title	Comparison of the Acute Effects of Hold-Relax and Static Stretching among Older Adults.
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Abstract	Various stretching techniques are generally recommended to counteract age-related declines in range of motion (ROM) and/or increased muscle stiffness. However, to date, an effective stretching technique has not yet been established for older adults. Consequently, we compared the acute effects of hold relax stretching (HRS) and static stretching (SS) on dorsiflexion (DF) ROM and muscle stiffness among older adults. Overall, 15 elderly men and nine elderly women (70.2 ± 3.9 years, 160.8 ± 7.8 cm, 59.6 ± 9.7 kg) were enrolled, and both legs were randomized to either HRS or SS stretching. We measured DF ROM and muscle stiffness using a dynamometer and ultrasonography before and after 120 s of HRS or SS interventions. Our multivariate analysis indicated no significant interaction effects, but a main effect for DF ROM. Post-hoc tests revealed that DF ROM was increased after both HRS and SS interventions. Moreover, multivariate analysis showed a significant interaction effect for muscle stiffness. Post-hoc tests revealed that muscle stiffness was decreased significantly after only SS intervention. Taken together, our results indicated that both HRS and SS interventions are recommended to increase ROM, and SS is recommended to decrease muscle stiffness in older adults.
keyword	ankle plantar flexors; dorsiflexion; muscle stiffness; ultrasound.