研究業績 英文表記

和文	
表題	スタティックストレッチングが腓腹筋の筋硬度に及ぼす理教の検討:せん断波エラストグラフィーを用いた検討
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英文	
Title	Acute effects of static stretching on muscle hardness of the medial gastrocnemius muscle belly in humans: An ultrasonic shear-wave elastography study
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Abstract	This study investigated the acute effects of static stretching (SS) on shear elastic modulus as an index of muscle hardness and muscle stiffness and the relationship between change in shear elastic modulus and change in muscle stiffness after SS. The patients were 17 healthy young males. Muscle stiffness was measured during passive ankle dorsiflexion using a dynamometer and ultrasonography before (pre) and immediately after (post) 2 min of SS. In addition, shear elastic modulus was measured by a new ultrasound technique called ultrasonic shear wave elastography. The post-SS values for muscle stiffness and shear elastic modulus were significantly lower than the pre-SS values. In addition, Spearman's rank correlation coefficient indicated a significant correlation between rate of change in shear elastic modulus and rate of change in muscle stiffness. These results suggest that SS is an effective method for decreasing shear elastic modulus as well as muscle stiffness and that shear elastic modulus measurement using the shear wave elastography technique is useful in determining the effects of SS.
keyword	Muscle stiffness; Shear elastic modulus; Shear wave elastography; Static stretching