## 研究業績 英文表記

和文	
表題	温熱刺激を付加した低負荷レジスタンスレーニングが筋量・筋力に及ぼす影響の検討
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英文	
Title	The effect of low-intensity resistance training after heat stress on muscle size and strength of triceps brachii: a randomized controlled trial
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Abstract	Background: The purpose of this study was to clarify whether there is a synergistic effect on muscular strength and hypertrophy when low-intensity resistance training is performed after heat stress.  Methods: Thirty healthy young male volunteers were randomly allocated to either the low-intensity resistance training with heat stress group or the control group. The control group performed low-intensity resistance training alone. In the low-intensity resistance training with heat stress group, a hot pack was applied to cover the muscle belly of the triceps brachii for 20 min before the training. The duration of the intervention was 6 weeks. In both groups, the training resistance was 30% of the one repetition maximum, applied in three sets with eight repetitions each and 60-s intervals. The one repetition maximum of elbow extension and muscle thickness of triceps brachii were measured before and after 6 weeks of low intensity resistance training. Results: There was no significant change in the one-repetition maximum and muscle thickness in the control group, whereas there was a significant increase in the muscle strength and thickness in the low-intensity resistance training with heat stress group.  Conclusion: The combination of heat stress and low-intensity resistance training was an effective method for increasing muscle strength and volume.
keyword	Hot pack; Low-intensity training; Muscle thickness; One repetition maximum; Ultrasound