

عنوان مقاله:

Effects of Heavy Duty versus traditional resistance training on thigh muscle cross-sectional area

محل انتشار:

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خلاصه مقاله:

Introduction: Heavy Duty resistance training (HD) is a new method that might improve muscle strength and hypertrophy. The effect of this method on thigh muscle hypertrophy is not well-known. The purpose of the present study was to examine the effects of HD versus traditional resistance training (TRT) on thigh muscle cross-sectional area (CSA). **Material & Methods:** Twenty untrained healthy men (age: 25.6 ± 2.0 mean \pm SD) volunteered to participate in this study. The subjects were divided into HD group (n=10) or TRT group (n=10) randomly. The subjects in HD and TRT executed five resistance exercises selected to stress the thigh muscle groups in the following order: leg press, squat, leg extension, prone leg curl, and dead lift. HD and TRT consisted of 50-60 min of station weight training per day, 3 days a week, for 8 weeks. TRT training was performed in 5 stations and included 4 sets with 6-12 maximal repetitions at 70-80% of 1-RM in each station with 2-3 minute of rest. HD training was performed in 5 stations and included 4 sets with 6-10 maximal repetitions at 70% of 1-RM in each station with 10 second of rest. Thigh muscle CSA and grow hormone (GH) were measured before and after the intervention. **Results:** The results showed that maximum strength in each station was increased after HD and TRT ($P < 0.05$). Thigh muscle CSA also was increased after HD and TRT; however the increase in thigh muscle CSA was higher in HD than TRT. For GH no significant differences were observed after the HD and TRT methods. **Conclusions:** In summary, HD method is better than TRT method for thigh muscle CSA however no significant differences were found for GH level after these resistance training methods.

کلمات کلیدی:

Heavy Duty resistance training, Traditional resistance training, Muscle hypertrophy, growth hormone

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