

Four-Week Plyometric and Resistance Training on Muscle Strength and Sprint Performance in Wheelchair Racing Athletes

Authors : K. Thawichai, R. Pornthep

Abstract : The purpose of this study was to compare the effects of a four week training period of combined plyometric and resistance training or resistance training alone on muscle strength and sprint performance in wheelchair racing athletes. The participants were sixteen healthy male wheelchair racing athletes of the Thai national team. All participants were randomly assignments into two groups in the plyometric and resistance training group (n = 8) performed plyometric exercises followed by resistance training, whereas the resistance training group (n = 8) performed static stretching and the same resistance training program. At baseline and after training all participants were tested on 1-RM bench press for muscle strength and 100-m cycling sprint performance. The results of this study show that the plyometric and resistance training group made significantly greater improvements in overall muscle strength and sprint performance than the resistance training group following training. In conclusion, these findings suggest that the addition of a four week plyometric and resistance training program more beneficial than resistance training alone on muscle strength and sprint performance in wheelchair racing athletes.

Keywords : plyometric, resistance training, strength, sprint, wheelchair athletes

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