

Effect of Kinesio Taping on Anaerobic Power and Maximum Oxygen Consumption after Eccentric Exercise

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Abstract : Objectives: To evaluate effect of kinesio tape compared to placebo tape and static stretching on recovery of anaerobic power and maximal oxygen uptake ($\text{Vo}_{2\text{max}}$) after intensive exercise. Methods: Thirty nine untrained healthy volunteers were randomized to 3 groups for each intervention: elastic tape, placebo tape and stretching. The participants performed intensive exercise on the dominant quadriceps by using isokinetic dynamometry machine. The recovery process was evaluated by creatine kinase (CK), pressure pain threshold (PPT), muscle soreness scale (MSS), maximum voluntary contraction (MVC), jump height, anaerobic power and $\text{Vo}_{2\text{max}}$ at baseline, immediately post-exercise and post-exercise day 1, 2, 3 and 7. Results: The kinesio tape, placebo tape and stretching groups had significant changes of PPT, MVC, jump height at immediately post-exercise compared to baseline ($p < 0.05$), and changes of MSS, CK, anaerobic power and $\text{Vo}_{2\text{max}}$ at day 1 post-exercise compared to baseline ($p < 0.05$). There was no significant difference of those outcomes among three groups. Additionally, all experimental groups had little effects on anaerobic power and $\text{Vo}_{2\text{max}}$ compared to baseline and compared among three groups ($p > 0.05$). Conclusion: Kinesio tape and stretching did not improve recovery of anaerobic power and $\text{Vo}_{2\text{max}}$ after eccentric exercise compared to placebo tape.

Keywords : stretching, eccentric exercise, Wingate test, muscle soreness

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