



Effects of Heart Rate and Lactate Response on Graded Exercise after 3 Day HIIT: A case study

Pei-Chen Huang¹ Jia-Tzer Jang¹ Te-Sheng Chen¹

¹ National Taiwan Sport University, Taiwan. ² Sport Performance Diagnostic Institute

Abstract

Purpose: To investigate the effects of acute Interval load on body circulation and muscle energy pathway in 3 days. **Methods:** A national Alpine ski female athlete participated in this study, who performed an incremental exercise test as an train intensity, than implement 3 days training for vary speed on treadmill. Before and after the training, the heart rate (HR) and lactate (La) were measured by incremental exercise test. **Results:** Flowing training, lower HR were found at the speed of 3 and 3.5 m/s (3m/s: -9 min-1, 3.5m/s: -16 min-1) on incremental test. During training, lower La accumulation were found from 7.65 to 5.82 mmol/l (1st to 3rd training) after exercise immediately (difference between 1st to 3rd was -1.83 mmol/l). **Conclusions:** The study results show that the 3 day training model decrease heart rate response and lactate accumulation may cause of the energy metabolic pathway and neuromuscular transmission enhancement.

Key words: HIIT 、 Progressive Load 、 Heart rate 、 Lactat