

The Effect of Lactate and Power Output on Continuous and Intermittent Rowing

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Abstract

Purpose: To investigate the effect of lactate and power out on high intensity interval exercise (HIIE) and continuous rowing. **Method:** 8 college students performed an interval (HIIE: 5x200m, 100%) or continuous row exercise (1000m, 110%) on row ergometer. Maximal power output were recorded and blood lactate were drawn during and after exercise.

Result : The results show that continuous group (1000m) average power output was 280 ± 67 Watt , HIIE group (5x200m) average power output was 323 ± 45 Watt, The HIIE shows higher power output than continuous for 43 watt ($p < 0.05$). The maximal level of lactate after exercise average value was 12.9 ± 2.1 mmol/l in continuous row exercise, and HIIE lactate after exercise average value was 15.5 ± 1.5 mmol/l. The HIIE shows higher accumulation on La than continuous for $+2.6$ mmol/l ($p > 0.05$).

Conclusion:

HIIE shows higher power output than continuous load which may indicate that the HIIE may increase the load at short time, also promote local tissue hypoxia. These situations are similar to the initiate of ball and combat competitions (e.g., boxing, basketball, football, Taekwondo), therefore, it would be a useful mode to help athlete to regulate at initiate of competition.

Keywords : HIIE, Continuous, Rowing Ergometer, Lactate