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EFFECT OF REGULAR TRAINING ON AEROBIC AND ANAEROBIC CAPACITY OF WHEELCHAIR BASKETBALL PLAYERS

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Abstract The aim of this study was to examine the physiological characteristics of wheelchair basketball athletes, and to investigate the effect of training during the preparation period on aerobic and anaerobic power in these athletes. Maximum oxygen uptake ($\dot{V}O_{2max}$) and anaerobic power (P_{max}) were mesured in ten male (Mage = 30.9, SD = ± 7.2) before and after training. All athletes were members of the National team. Wheelchair ergometer was used in the study. Training was performed 7 days a week for 8 weeks and had emphasis on aerobic power. $\dot{V}O_{2max}$ improved by 10.5% (Pre: 26.8 ± 5.7, Post: 29.5 ± 5.9, t = -4.36, df = 9, p < .01), and maximum ventilation by 15.5% (Pre: 90.8 ± 17.3 Post: 105.8 ± 21.5, t = -5.69, df = 9, p < .01) as a result of training. Anaerobic threshold was also improved from 63 ± 15.5 Watts before training to 73 ± 14.2 Watts after training (t = -4.74, df = 9, p < .01). Anaerobic power remained unchanged in these athletes (Pre: 222.4 ± 35, Post: 227.2 ± 34.1). In conclusion, aerobic training during the preparation period of eight weeks improved aerobic but not anaerobic power in these wheelchair basketball players.

Keywords: Wheelchair athletes, Basketball, Aerobic-anaerobic power, Training.

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