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Biochemical indicators and systemic reaction times in male judo competitors during regular and pre-competition conditioning periods

(男子柔道選手における試合期と非試合期の生化学的指標と全身反応時間の検討)

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Abstract

Weight control and exercise measures are integral to preparing for judo competitions. As such, a good understanding of these two areas is key to doing well in competitions, but until now, no research has thoroughly addressed them. The aim of this study was knowledge about biochemical, muscular and neural indicators during regular and pre-competition conditioning training periods male judo athletes (at least the rank of first dan and over 10 years practice).

Sixteen judo competitors participated in this study. Blood components as analyzed through samples, muscular and neural response times, and body composition variables were examined. Food and water intake was also recorded. Comparisons were drawn and conclusions were made comparing samples and data from regular and pre-competition conditioning periods.

A comparison of water and caloric intake during practice between regular and pre-competition training periods showed no significant differences. Blood samples from the pre-competition sample set showed higher concentrations of the blood components analyzed. Quicker muscular contraction and neural response times were recorded during pre-competition training when compared to those from regular season training.

Improved performance resulted from competitors' reduced liquid intake and exercise intensity Biochemical, muscular and neural data may assist coaches and athletes in assessing their physical condition in a way that could support better training and competition outcomes.