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Effects of Preparation Caused by Ischemic-Reperfusion along with Sodium Bicarbonate Supplementation on Submaximal Dynamic Force Production

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Abstract : Background and Aims: Sodium bicarbonate is a supplementation that used to reduce fatigue and increase power output in short-term training. On the other hand, the Ischemic Reperfusion Preconditioning (IRPC) is an appropriate stimulus to increase the submaximal contractile response. Materials and methods: 9 female student-athletes in double-blind randomized crossover design were three mode, sodium bicarbonate + IRPC, sodium bicarbonate and placebo+ IRPC. Participants moved forward single arm dumbbell hand with a weight of 2 kg can be carried out most frequently. Results: The results showed that plasma lactate concentration and records of sodium bicarbonate + IRPC and sodium bicarbonate conditions were significantly different compared to placebo + IRPC (Respectively p=0.001, p=0/02). Conclusion: According to the research findings, bicarbonate supplementation in IRPC training condition increased force and delay fatigue in submaximal dynamic contraction.

Keywords : ischemic reperfusion, preconditioning, sodium bicarbonate, submaximal dynamic force
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