

CHANGES IN THE POWER OF THE VERTICAL JUMP POSTERIOR TO HIIT TRAINING IN AMATEUR BASKETBALL PLAYERS

ABSTRACT

Electrical stimulation (ES) Neuromuscular electrostimulation is one of the most used physical agents in physiotherapy. There is consensus that electrostimulation combined with plyometric exercises generate a positive effect on the development of muscle strength in the short term, however, it is necessary to study whether low and medium frequency electrostimulation alone can generate changes in this capacity physical. The sample consisted of 30 high performance athletes, male, between 20 and 30 years of age. Participants were exposed to 3 interventions with one week of lag. In the first instance, a protocol of concentric contractions of gastrocnemius (CC) was applied. The following week, low-frequency electrostimulation (BF) was performed and finally, at the third week, medium-frequency electrostimulation (MF) was performed. During the 3 instances, an evaluation of the outcome measure, pre and post intervention, was carried out. The data were analyzed with the Shapiro Wilk test to check normality, using the student and Wilcoxon t tests to compare the pre- and post-intervention values. The comparisons of the outcome measures between the different interventions were analyzed with the Kruskal - Wallis test. The results obtained for the power (W) are CC pre: 357.068 ± 124.724 , CG post: 354.552 ± 133.291 ($p = 0.652$); BF pre: 352.938 ± 117.387 , Post: 369.796 ± 131.840 ($p = 0.298$); Pre MF: $355,157 \pm 112,685$, post: $369,417 \pm 142,677$ ($p = 0.628$) and intergroups ($p = 0.895$). Although the results show changes, these are not statistically significant for the different intervention modalities, suggesting that there are no changes in the power of gastrocnemius post-electro-stimulation of low and medium frequency.

KEY WORDS

Electrostimulation- Squat Jump- NMES current –Russian current- concentric contraction

