

This work is trying to identify possible non-stimulatory effects and distant effects of muscle electrostimulation musculus quadriceps femoris based on a literature search. Furthermore evaluates the influence of High Tone Electrical Stimulation (HTEMS) muscles of lower limbs on the activity of the autonomic nervous system, expressed by heart rate variability, a spectral power in the individual frequency bands. Randomized crossover study involved 20 healthy subjects (12 men and 8 women), average age 24.6 ± 5.6 years. Heart rate variability was evaluated before application of HTEMS and immediately after. Measurements were performed with electrostimulator HiToP 191. The results did not show statistically significant increase in spectral power in the individual frequency bands. The study also deals with the reproducibility of measurements of sensitive and motor threshold for electrostimulation HTEMS method, which was confirmed.