THE EFFECT OF FATIGUE ON THE ANKLE AND KNEE PROPRIOCEPTION AND DYNAMIC CONTROL OF POSTURE

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ABSTRACT

Neuromuscular system can be affected by the amount of an activity that a person has performed. Fatigue has been proposed to be a factor that effect on it. This semi-experimental study is conducted on 14 healthy female for experimental group and 14 healthy female for control group among students of Razi University. Errors in repositioning of knee and ankle joint angle (active) are done; for ankle and knee proprioception and balance, Star Excursion Test (SEBT) is done for dynamic control of posture. Experimental group after the fatigue protocol, these tests are done again. Data is analyzed by SPSS software and independent and paired sample t-test and Excel software is used for figure drawing. The results of this study showed that fatigue increased the errors of active repositioning of 45° knee flexion, but the decrease of other errors of active repositioning of knee flexion and ankle dorsiflexion and plantar flexion measures were not significant. The results of SEBT after fatigue protocol and compare to control group was significant expect 3 directions. We can state that fatigue is one of the risks for sport injuries special for lower extremity, and we can control it by prescription of fatigue resistance exercise and increase the physical fitness in the pre-season.