

The Effect of Low Power Laser on CK and Some of Markers Delayed Onset Muscle Soreness (DOMS)

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Abstract : The study showed effect of low power laser therapy on knee range of motion (flexion and extension), resting angle of knee joint, knee circumference and rating of delayed onset muscle soreness induced pain, 24 and 48 hours after eccentric training of knee flexor muscle (hamstring muscle). We investigate the effects of pulsed ultrasound on swelling, relaxed, flexion and extension knee angle and pain. 20 volunteers among girl students of college voluntary participated in this research. After eccentric training, subjects were randomly divided into two groups, control and laser therapy. In day 1 and in order to induce delayed onset muscle soreness, subjects eccentrically trained their knee flexor muscles. In day 2, subjects were randomly divided into two groups: control and low power laser therapy. 24 and 48 hours after eccentric training. Variables (knee flexion and extension, range of motion, resting knee joint angle and knee circumferences) were measured and analyzed. Data are reported as means \pm standard error (SE) and repeated measured was used to assess differences within groups. Methods of treatment (low power laser therapy) have significant effects on delayed onset muscle soreness markers. 24 and 48 hours after training a significant difference was observed between mean pains of 2 groups. This difference was significant between low power laser therapy and C groups. The Bonferroni post hoc is significant. Low power laser therapy trophy as used in this study did significantly diminish the effects of delayed - onset muscle soreness on swelling, relaxed - knee extension and flexion angle.

Keywords : creatine kinase, DOMS, eccentric training, low power laser

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