

Abstract

Effect of Low Level Laser Irradiation on Nerve Conduction Velocity of Experimentally Induced Diabetic Neuropathy in Wistar rats.

Peripheral neuropathies have been described in patients with primary and secondary diabetes of diverse causes suggesting a common etiologic mechanism based on chronic hyperglycemia. The extensive review of literature reveals that there is paucity of studies on scope of management for this particular complication, this urges to do a study on this problem with low level laser irradiation which is recognized worldwide for its tissue healing properties. The Effect of various dosages of low level Laser Therapy in Experimental Diabetic Neuropathy was evaluated with 42 Healthy adult male albino wistar rats. The animals were induced with Alloxan intraperitoneally and blood glucose status was examined with Glucometer. Diabetic neuropathy status was measured with EMG-NCV for MNCV and SNCV. The rats were than divided into 7 groups and irradiated with laser dosages ranging from 3j/cm² to 8j/cm² and one group was kept as control. On analyzing pre and post MNCV and SNCV values it is concluded that dosages of 3-4j/ cm² showed extremely significant recovery of nerve conduction when compared with higher dosage and control group. This NCV results are important finding of the study that the calculation of correct dosage of laser is very important, like higher dosage can have photo bio-inhibitory effect.