

## **Clinical Parameters Response to Low Level Laser Versus Monochromatic Near Infrared Photo Energy in Diabetic Patient with Peripheral Neuropathy**

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**Abstract :** Background: Diabetic sensorimotor polyneuropathy (DSP) is one of the most common micro vascular complications of type 2 diabetes. Loss of sensation is thought to contribute to lack of static and dynamic stability and increased risk of falling. Purpose: The purpose of this study was to compare the effects of low level laser (LLL) and monochromatic near infrared photo energy (MIRE) on pain, cutaneous sensation, static stability and index of lower limb blood flow in diabetic with peripheral neuropathy. Methods: Forty subjects with diabetic peripheral neuropathy were recruited for study. They were divided into two groups: The ( MIRE) group that included (20) patients and (LLL) group included (20) patients. All patients in the study had been subjected to various physical assessment procedures including pain, cutaneous sensation, Doppler flow meter and static stability assessments. The baseline measurements were followed by treatment sessions that conducted twice a week for 6 successive weeks. Results: The statistical analysis of the data had revealed significant improvement of the pain in both groups, with significant improvement in cutaneous sensation and static balance in (MIRE) group compared to (LLL) group; on the other hand results showed no significant differences on lower limb blood flow in both groups. Conclusion: Low level laser and monochromatic near infrared therapy can improve painful symptoms in patients with diabetic neuropathy. On the other hand (MIRE) is useful in improving cutaneous sensation and static stability in patients with diabetic neuropathy.

**Keywords :** diabetic neuropathy, doppler flow meter, low level laser, monochromatic near infrared photo energy

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