

## Efficacy of Negative Pressure Therapy Versus Monochromatic Infrared Energy (MIRE) on Healing of Venous Ulcer: A Randomized Controlled Trial

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**Abstract : Background:** Venous ulcers are one of the major health problems of the industrial world. **Objective:** The aim of this study was to compare between the efficacy of Negative Pressure therapy and Monochromatic infrared energy (MIRE) in accelerating the healing of lower limb venous ulceration. **Patients and methods:** Forty patients with lower limb venous ulcer selected from department of surgery, Cairo University Hospitals between Dec 2015 and May 2016, with age ranged from 30-50years. Patients were randomly assigned into two equal groups. Group (A) received monochromatic infrared energy in addition to routine medical treatment, while Group (B) received Negative Pressure therapy in addition to routine medical treatment. All treatment interventions were applied at a frequency of 3 days per week for 6 weeks. Outcome measures included Ulcer Surface Area (USA). USA was measured for all patients before treatment and after 6 weeks from the beginning of treatment. **Results:** There was a significant reduction of ulcer surface area ( $p < 0.05$ ) at both groups. percent of improvement of ulcer surface area " between both groups showed there was significant differences ( $p < 0.05$ ) and this significant reduction in group B (Negative Pressure therapy). **Conclusion:** From the results of our study it was concluded that Negative Pressure therapy accelerates the healing of lower limb venous ulceration as compare to Monochromatic infrared energy (MIRE) in patients with lower limb venous ulceration. **Key words;** Monochromatic infrared energy, Negative Pressure therapy, Ulcer Surface Area, and, Venous ulcers.

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