



## **A randomized controlled trial of electromagnetic therapy on microcirculation and healing of painful vascular leg ulceration.**

**Eman M. Othman**

**Department of Surgery, Faculty of Physical Therapy, Cairo University, Cairo , Egypt.**

**Abstract : Purpose:** The aim of this study was to investigate the efficacy of pulsed electromagnetic field therapy on vascular lower limb ulcers healing and microcirculation. **Methods:** Forty patients (14 females and 16 males) between 45 and 65 years with venous leg ulcers were randomly assigned into two equal groups of 20. Both groups received their routine medical and physical therapy; additionally, Group (A): (n=20) received pulsed electromagnetic field therapy at a frequency of 12.5 Hz, 20 min per session, day after day for 2 months, While group (B) (n=20) received 2 months of routine conventional therapy only. Methods of evaluation were ulcer surface area (USA), ankle brachial pressure index (APBI) and visual analogue scale (VAS). **Results:** Results showed that the pulsed electromagnetic field therapy is beneficial in improving healing and microcirculation of the venous leg ulcers as manifested by decreasing pain, ulcer surface area and increasing ankle brachial pressure index. **Conclusion:** Pulsed electromagnetic field therapy is effective in accelerating healing, improving microcirculation and reliving pain of vascular leg ulcers. **Key words** (Ankle brachial pressure index– Pulsed electromagnetic field therapy- Vascular ulcers and Wound surface area).

**Eman M. Othman** /International Journal of ChemTech Research, 2017,10(2): 354-370.

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