

Effect of Extracorporeal Shock Wave Therapy on Post Burn Scars

Mahmoud S Zaghloul¹, Mohammed M Khalaf¹, Wael N Thabet²,
Haidy N Asham¹

¹Department of Physical Therapy for Surgery, Faculty of Physical Therapy,
Cairo University, Cairo, Egypt

² Department of general surgery, Faculty of Medicine, Cairo University,
Cairo, Egypt.

Abstract: *Introduction:* Hypertrophic scarring is a difficult problem for burn patients, and scar management is an essential aspect of outpatient burn therapy. Post burn pathologic scars involve functional and aesthetic limitations that have a dramatic influence on the patient's quality of life. *The purpose* was to investigate the effect of extracorporeal shock wave therapy (ESWT) on post burn scars. *Experimental:* forty patients with post burn scars were assigned randomly into two equal groups; their ages ranged from 20 to 45 years. The study group received ESWT and traditional physical therapy program (deep friction massage and stretching exercises). Control group received traditional physical therapy program (deep friction massage and stretching exercises). All groups received two sessions per week for six successful weeks. The data were collected before and after the same period of treatment for both groups. *Assessment:* Evaluation procedures were carried out to measure scar thickness using ultrasonography and Vancouver Scar Scale (VSS) was completed before and after treatment. *Results:* Post treatment results showed that there was a significant improvement difference in scar thickness in both groups in favor of the study group. Percentage of improvement of scar thickness in the study group was 42.55%, while it was 12.15% in the control group. There was also a significant improvement difference between results obtained using VSS in both groups in favor of the study group. *Conclusion:* Extracorporeal shock wave therapy is effective in management of post burn scars.

Key Words: Extracorporeal shock wave therapy, post burn scars, ultrasonography, Vancouver scar scale.