

Effect of Extracorporeal Shock Wave Therapy on Post Burn Scars

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Abstract : Background. 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 aim was to investigate the use of extracorporeal shock wave therapy (ESWT), which targets the fibroblasts in scar tissue, as an effective modality for scar treatment in burn patients. Subjects and methods: forty patients with post-burn scars were assigned randomly into two equal groups; their ages ranged from 20-45 years. The study group received ESWT and traditional physical therapy program (deep friction massage, stretching exercises). The control group received traditional physical therapy program (deep friction massage, 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. 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 in 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: ESWT is effective in management of pathologic post burn scars.

Keywords : extracorporeal shock wave therapy, post-burn scars, ultrasonography, Vancouver scar scale

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