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EFFICACY OF GABAPENTIN GEL PHONOPHORESIS ON POST BURN SCAR NEUROPATHIC PAIN: SINGLE BLIND RANDOMIZED CONTROLLED TRIAL

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Purpose: To investigate efficacy of gabapentin phonophoresis for neuropathic pain management in postburn scar.

Methods: 50 patients with postburn scar neuropathic pain of both gender were randomly collected then allocated into two equal groups, Group A (gabapentin phonphoresis) and Group B (gabapentin gel). Group (A): received gabapentin phonphoresis day after day for 4 weeks using continuous ultrasound (1 MHz, 1.5 W/cm2, for 5 minutes). Group (B): received topical 6% w/w gabapentin gel three times per day for 4 weeks on the affected site. The methods of assessment included visual analogue scale (VAS) and Neuropathic Pain Scale (NPS). All measurements were collected before the beginning of the study and after the end of the treatment (after one month).

Results: There was no significant difference between both groups in VAS ($p=0.432$) and NPS ($p=0.460$) pre-treatment. Comparison between groups post treatment revealed a significant decrease in VAS and NPS of group A compared with that of group B ($p \leq 0.05$). The percent of decrease in VAS of group A and B was 51.32% and 43.03% respectively while the percent of decrease in NPS was 50.79% and 45.05% respectively.

Conclusion: It was concluded that conduction of gabapentin gel topically or by using phonophoresis is safe and effective method for neuropathic pain management and can alleviate pain intensity; however phonophoresis achieved better results and was superior to topical gel application.

Keywords: Gabapentin Phonphoresis, Visual Analogue Scale (VAS) and Neuropathic Pain Scale (NPS).

Note: