



Efficacy of silver sulfadiazine phonophoresis on wound healing in acute burn patients.

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Abstract

The purpose of the current study was to evaluate the efficacy of SSD phonophoresis approaches (continuous and pulsed modes on the rate of healing following acute burn injury . forty female patients with second degree burn in thir anterior aspect of the dominant forearm were divided randomly into two groups : patients in group I received pulsed SSD phonophoresis for 15 min with a frequency of 1MHz , intensity of 1 w/ cm² , and with the pulse ratio was set at 1 : 4 , and the pulsed duration was set at 2 m.s., while patients in group II received continuous SSD phonophoresis for 5 min with a frequency of 1 MHz , and intensity of 1 W/cm² . the parameters investigated including 1.burn surface area measured by tracing the burn wound parameters , and 2.determination of glycosaminoglycan in urine by using cetylpyridinium chloride turbidity method . both parameters are measured 24 hours post-burn injury and at one week interval for three weeks . student's t-test was used to compare the variables between both groups of the study and paired t-test for follow up in the same group . results of the study showed that there was a significant difference between pulsed SSD phonophoresis and continues SSD phonophoresis on the rate of healing in acute second degree burn in the second and third weeks after burn considering BSA parameter while the results showed a significant difference between both groups considering GAG parameter in the first three weeks after burn injury . it could be concluded that SSD phonophoresis might be valuable for enhance acute burn healing and the pulsed SSD phonophoresis is more effective for accelerating the acute burn wound healing .

Keywords

Burn healing , phonophoresis , silver sulfadiazine , burn surface area , glycosaminoglycan ,