

# Acupuncture Promotes Wound Healing

RESEARCHERS FIND TECHNIQUE "BENEFICIAL AND HARMLESS"

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Each year in the U.S., an estimated 2.5 million burn injuries, 30 million lacerations and six million abrasions occur that are serious enough to warrant medical treatment.<sup>1</sup> Although the typical approach to helping skin wounds heal properly is to use antibacterial drugs and antiseptics, there are situations (excessive burn damage, severe obesity, malnutrition, etc.) in which the healing process can be compromised.

In such cases, alternative therapies have sometimes been used to facilitate healing. One popular alternative is to stimulate the area around the wound with electric current. While there is no definitive explanation for the therapeutic benefits electrical stimulation achieves, experimental studies have shown it to have a positive effect on wound contracture and to increase blood supply in stimulated areas.<sup>2,3</sup>

In a recent issue of the *American Journal of Acupuncture*,<sup>4</sup> a pair of researchers from the National Autonomous University of Mexico conducted a small study on 44 patients (15 male, 29 female) to determine the effectiveness of acupuncture-like electrical stimulation in treating a variety of wound conditions. All 44 had previously received conventional Western medical care but had met with unsatisfactory results, prompting them to seek acupuncture.

Thirty-four subjects had assorted skin lesions; the other 10 had suffered second-degree burns. Patients were classified as either grade I, grade II or grade III depending on the severity of their lesion and their medical status.

In each session, patients received 20 minutes of electric stimulation from a WQ-6F acupuncture stimulator, with electrodes clipped to acupuncture needles inserted subcutaneously along the edges of the lesion to form a near-complete circuit around the affected area. In cases where the burned area was extensive, the lesion was covered with a saline-soaked gauze with alligator clips randomly attached to the bandage. Treatment was administered either daily or every other day, depending on the severity of the lesion and the compliance of the patient.

Treatment was concluded after two independent observers agreed that in two or three sessions, no further progress in healing could be observed, or when full recovery was evident. Upon the conclusion of treatment, each patient and one of the authors independently assessed the outcome of the procedure as follows:

Poor outcome: less than 50% recovery;

Fair outcome: between 60-90% recovery;

Excellent outcome: greater than 90% recovery.

According to the authors, 41 patients (93%) experienced an "excellent" outcome; the remaining three patients (7%) experienced a "fair" outcome. No outcomes were scored as "poor."

Table I: Clinical outcome of patients treated with acupuncture-like electrical stimulation.						
Lesion grade	# of patients	Average # of treatments	# of burns/wounds	Clinical Outcome		
				Poor	Fair	Excellent
I	10	8.40	2/8	0	0	10
II	18	10.60	3/15	0	1	17
III	16	41.38	5/12	0	2	14

The more severe the lesion, the greater the number of treatments needed to obtain complete healing. Grade I patients needed an average of 8.4 treatments; grade II patients averaged 10.6 treatments; and grade III patients required an average of 41.38 treatments for healing.

Admittedly, the study did have its share of shortcomings, most noticeably the small sample size. Each patient was also given a clear explanation of the treatment they would be receiving, making it impossible to create an untreated control group or a group receiving a different form of treatment.

However, the authors noted that before participating in the trial, all 44 patients had been initially treated with topical antibacterials, wound dressings, antiseptics and other treatments associated with Western medicine, with little or no success. In their opinion, "the fact that deterioration or no improvement of the wound or burn motivated the patients to seek alternatives was taken as paired control indication of the lack of effectiveness of conventional treatments."

Based on the poor progress the patients had received with conventional care, and based on the patient outcomes after receiving treatment, the authors stated, "it is tempting to speculate that electrical stimulation is a viable alternative for wound healing."

Under certain circumstances, the scientists believe that "electrical stimulation may be regarded as beneficial and harmless." Since no adverse effects were reported during the study, and since it is inexpensive and relatively easy to administer, they also believe that electroacupuncture "may facilitate acceptance by clinicians and patients."

The researchers stopped short of endorsing electrical stimulation altogether, however, concluding that "a larger clinical trial is needed before this treatment could be incorporated as part of the management of burns, abrasions and lacerations."

### References

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