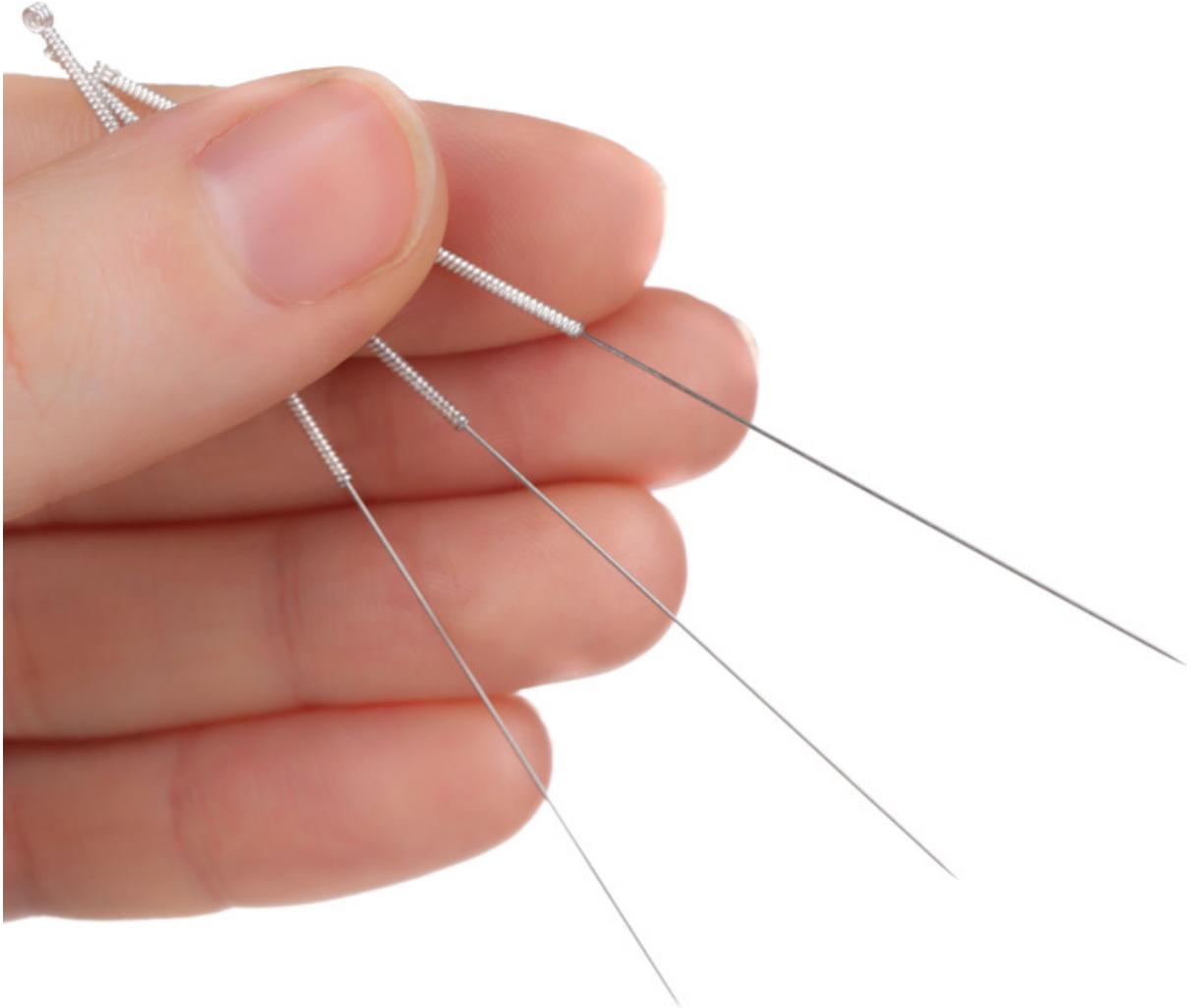


Acupuncture Heals Bedsores With Turtle Technique

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Research published in the *Shanghai Journal of Acupuncture and Moxibustion* finds acupuncture effective for the treatment of pressure ulcers. Yang et al. compared patients receiving acupuncture plus standard wound care with patients receiving only standard wound care. Patients receiving both acupuncture and standard wound care treatments had greater positive patient outcomes. Acupuncture shrank ulcerative lesions and decreased PUSH scores. PUSH is a measurement tool for patients with pressure ulcers. It categorizes the ulcer with respect to

surface area, exudate, and type of wound tissue to provide an indication of the improvement or deterioration in pressure ulcer healing.

Patients receiving acupuncture plus standard wound care had an 88.2% improvement rate in pressure ulcers symptoms. Patients receiving standard wound care as a standalone therapy had a 70.6% improvement rate. The researchers measured the size of ulcerative lesions and PUSH scores before treatment and at the 1 week, 2 week, and 3 week data points after completion of treatment. The size of ulcerative lesions and PUSH scores were reduced significantly with acupuncture plus standard wound care. The researchers note that the group receiving acupuncture plus standard wound care significantly outperformed the group receiving only standard wound care in shrinking ulcerative lesions and decreasing PUSH scores.

Pressure ulcers, also referred to as bedsores, are injuries to skin and underlying tissue resulting from prolonged pressure on the skin. The most common sites are the skin that covers bony areas of the body, such as the back of shoulders, elbows, sacrum, coccyx, heels, or the ankles. These sites little muscle or fat and pressure applied to these sites for over time may result in obstructed blood flow. Other factors influence the tolerance of skin for pressure or shear, thereby increasing the risk of pressure ulcer development. These factors include poor blood circulation, loss of elasticity, and lack of exercise.

The study involved the selection of 34 patients at the acupuncture department of the second affiliated hospital of Heilongjiang Traditional Chinese Medicine University. All patients were diagnosed with stage II – III pressure ulcers between March 2015 and March 2016. They were randomly divided into an acupuncture treatment group and a control group, with 17 patients in each group. The treatment group underwent Traditional Chinese Medicine (TCM) acupuncture plus standard wound care therapy and the control group received only standard wound care.

The statistical breakdown for each randomized group was as follows. The treatment group was comprised of 9 males and 8 females. The average age in the treatment group was 9 (± 3) years. The average course of disease in the treatment group was 39.82 (± 9.65) days. The control group was comprised of 12 males and 5 females. The average age in the control group was 65 (± 4) years. The average course of disease in the control group was 40.82 (± 10.62) days. For both groups, there were no significant differences in terms of their gender, age, and course of disease.

Prior to treatment, the wound area in both groups was cleaned with a 3% hydrogen peroxide solution and 0.9% sodium chloride solution. Next, in a sterile environment, blisters were pierced to drain inflammatory secretions and to debride the wound. The treatment group received acupuncture plus standard wound care. First, fire needle acupuncture was used at the wound site. Upon disinfection, a needle was heated to a red hot state. The red needle was inserted and withdrawn at the fastest speed possible, to a depth of 5 – 10 mm.

Fire needling is an ancient acupuncture therapy found in the *Huang Di Nei Jing (Yellow Emperor's Classic of Internal Medicine)*. It requires needles to be heated to a red hot state before they are inserted into acupuncture points or local areas. In the *Zhen Jiu Da Cheng (Compendium*

of *Acupuncture and Moxibustion*), it is said, “For fire needle, the needles must be burnt red. If the needles are not burnt red before inserting into acupuncture points, this technique loses its curative effects. . . .” The researchers note that “compared with normal needles, fire needle produces a strong deqi sensation.” Additionally, “fire needle produces less pain because the insertion and withdrawal procedure is very fast.”

Next, a surround acupuncture procedure was applied. A total of four 0.30 mm × 40 mm disposable needles were obliquely inserted surrounding each ulcerative lesion. Each needle was distal to the lesion by 1 cm. Next, an electroacupuncture device was connected to the acupoints. A disperse-dense wave (750 μA, 0.5 Hz) was applied with an intensity level set to patient tolerance levels or until muscle contractions were observable. The needles were retained for 15 minutes once electroacupuncture stimulation was initiated.

Compared with traditional acupuncture techniques, the researchers note that this surround needling technique “provides the local area with stronger stimulation, so that it offers a better result in unblocking the meridians and removing blood stasis.” In addition, they cite prior research and note that “the surround needling technique promotes absorption of inflammatory exudation, accelerates blood and lymphatic circulation, and benefits the growth granulation tissue and the wound healing process.” The four-needle surround technique is often termed the turtle technique.

Thirdly, a TDP (Teding Diancibo Pu) heat lamp was applied for 10 minutes at a 25 – 30 cm distance from the ulcerative lesions. The heat level was set to patient tolerance levels. Here, TDP lamp was used to benefit the wound healing process by stimulating blood and lymphatic circulation.

After acupuncture treatments, standard wound care was applied. A sterile dressing was applied. Some wound tissues required drainage and then sterile gauze was applied. The treatment was applied once per day, 5 days per week, for a total of 3 weeks as a complete treatment course of care. The control group received only standard wound care. Identical standard wound care procedures were applied to patients in both groups.

The total treatment effective rate for each patient group was derived as the percentage of patients who achieved at least an effective treatment tier of improvement. The treatment efficacy for each patient was categorized into 1 of 4 tiers:

- *Recovery: The entire wound area was resurfaced with new epithelium cells within 3 weeks. No relapse of pressure ulcers in the 4th week.*
- *Significantly effective: Approximately 75% of the wound area was resurfaced with new granulation tissue. Significant improvement of accompanying symptoms was achieved.*
- *Effective: Approximately 25 – 75% of the wound area was resurfaced with new granulation tissue. Improvement of accompanying symptoms was achieved.*
- *Not effective: Less than 25% of the wound area was resurfaced with new granulation tissue.*

Pressure ulcers cause patient discomfort and may lead to death. As a result, effective protocols of care are very important. This integrative medicine approach demonstrates a significant improvement in outcomes. The researchers definitively conclude that acupuncture enhances the clinical efficacy of standard wound care for patients with pressure ulcers. Based on these findings, additional research is recommended.

Reference

Yang JP, et al. Observations on the Efficacy of Acupuncture plus TDP in Treating Stage stage II – III Pressure sore [J]. Shang Journal of Acupuncture and Moxibustion, 2017, 36 (5).