Treatment Of Chronic Back Pain And Neck Pain Using Scalp Acupuncture: A Case Study

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ABSTRACT

Background Acupuncture points on the scalp have been considered important points in the history of the practice of acupuncture. However, development of scalp acupuncture as an independent system took place in the last century. Scalp acupuncture was known to be developed as a systemic approach in China in the 1960s and 1970s. It is sophisticated and has branched out into different styles by the pioneers in this field. Among them, Zhu's style uses the 3-column zone theory to direct formulation of a treatment regimen.

Objective To investigate the effectiveness of treatment of chronic back pain and neck pain with scalp acupuncture.

Methods We used Zhu's style to treat 20 cases of chronic back pain and neck pain at a hospital-based spine center. The technique involved the use of 36-gauge 1.2 acupuncture needles at relevant points based on the 3-column zone theory. Among the 20 cases, there were 15 cases of chronic back pain, 5 cases of neck pain (13 men, 7 women). Ages were 37 to 80, with a mean of 51 years. Eight cases of 15 chronic back pain cases had a history of lumbar laminectomy surgery (53%).

Results Relief of pain took place within 10 to 20 minutes into treatment. The degree of pain reduction ranged from 40% to 100% at the end of a 30-minute treatment. The mean VAS scores were significantly improved from 6.4/10 to 2/10 (P<0.05) in chronic back pain cases, and 5.5/10 to 1/10 (P<0.05) in neck pain cases. The mean degrees of the lumbar pain-free range of motion were improved from 49° to 81° in flexion, from 10° to 28° in extension, at the end of a 30-minute treatment. The treatment effect continued to last from 1 to 5 weeks after 1 treatment.

Conclusion Zhu's style scalp acupuncture is an effective regimen for treatment of chronic back and neck pain. It is less complex to formulate tactics for treatment of particular symptomatology and yet more efficient compared to the body points approach. Further randomized controlled trials are needed to evaluate this approach.

KEY WORDS
Acupuncture, Chronic Low Back Pain, Chronic Neck Pain, Visual Analog Scale (VAS), Scalp Acupuncture

INTRODUCTION

Acupuncture points on the scalp are considered important in the history of acupuncture practice. Scalp acupuncture was developed into a complete acupuncture sub-system in China in the 1960s and 1970s.1 The pioneers in this field had different styles in naming the points and treatment zones based on their own experiences and preferences. A standard of nomenclature for scalp acupuncture points was developed in the mid 1980s, with the consensus of 14 therapeutic lines or zones based on the combination and summarization of the different schools of scalp acupuncture.1 However, few practitioners have adopted the standard in practice.1,7

Dr Zhu Mingqing is one of the pioneers in the scalp acupuncture arena. Zhu's style is popular due to its relative simplicity in learning and application. It is based on 3-column zone theory to formulate grouping of the treatment points.7 In Zhu's scalp acupuncture, 9 therapeutic zones are used, and the manipulation is characterized by forceful, small-amplitude lifting and thrusting of the needle, coupled with physical and breathing exercises. Scalp acupuncture has been reported for its effectiveness in the treatment of neurological conditions such as strokes and spinal cord injury.7,15 In this study, we investigated Zhu's style scalp acupuncture in treatment of chronic back and neck pain.

METHODS

This descriptive study reported 15 cases of chronic low back pain and 5 cases of chronic neck pain that had failed other conservative treatment, including pain medications and physical therapy. Among the 20 cases, there were 13 men and 7 women, ages 37 to 80, with a mean of 51 years. Eight cases of 15 chronic back pain cases had a history of lumbar laminectomy surgery (53%). The patients were treated with scalp acupuncture by a spine physiatrist certified by the American Board of Medical Acupuncture, at the Spine Center of Lahey Clinic Medical Center in Burlington, Massachusetts.

Consent for acupuncture treatment was obtained from the patients before treatment. The patient was placed in sitting position in a quiet treatment room. Three Zhu's scalp-acupuncture needles (12.5 inch 36 gauge, purchased from Zhu's Acupuncture Medical Neurology Center, Inc.) were placed into the cervical zone or lumbar zone on the scalp (Figure 1). One needle was inserted on the sagittal midline on the scalp, another 2 were placed 1 cm lateral to the midline on either side of the 1st needle. The Lower Jiao zone was also needled if the pulse diagnosis demonstrated Kidney deficiency (Figure 1) using the same technique. Depth of the needle insertion was 1/2 needle length. The needles were manipulated with a forceful, small-amplitude lifting and thrusting motion for 2 minutes, with patients being instructed to take deep breaths simultaneously. Then, the needles were left in place during the 30-minute treatment. No music, lighting, moxibustion, or electric stimulation were used. The needles were removed with cautions of avoiding bleeding at the end of the treatment. Only 1 treatment was provided for each patient. The longest follow-up was the 5th week after treatment. A t test was used for statistical analysis.

RESULTS

Pain relief occurred within 10-20 minutes into the treatment in all cases. The pain reduction ranged from 40% to 100% at the end of the 30-minute treatment among the 20 cases. Duration of the treatment benefit varied from 1 week to over 5 weeks. There were 2 chronic low back pain (13%), and 2 chronic neck pain cases; (40%) were still pain-free at the 5th week follow-up visits after the treatment.

Back Pain Cases

The mean visual analog scale score was significantly improved from 6.4/10 to 2/10 (P<0.05) in chronic back pain cases. The mean degree of the lumbar spine pain-free ROM (range of motion) was improved from 49° to 81° in flexion, from 10° to 28° in extension, at the end of
the 30-minute treatment.

**Neck Pain Cases**

The mean VAS score was significantly improved from 5.5/10 to 1/10 (P<.05) in the chronic neck pain cases.

**DISCUSSION**

Many articles report utilizing acupuncture in the treatment of chronic low back and neck pain. The majority of the studies mainly utilized body acupuncture points. The reported length of the treatment is once or twice a week over 6 to 8 weeks on the average, and pain reduction ranged from 20% to 50% on VAS. In this study, we demonstrated that a single 30-minute scalp acupuncture treatment resulted in substantial improvement of chronic back and neck pain. Yet, the treatment benefit lasted from 1 week to over 5 weeks. The case series in this report indicate that the scalp acupuncture treatment may be more potent and efficient in the treatment of chronic back and neck pain that does not respond to other conventional treatment including pain medications, physical therapy, and massage. However, we report a descriptive study with a small number of cases. Further randomized and controlled studies are needed for additional investigation.

**CONCLUSIONS**

The results from this report indicate that the Zhu’s style scalp acupuncture may be an efficient and simpler approach for treatment of chronic back and neck pain. More large-scale clinical trials would be valuable to evaluate this technique.

**REFERENCES**


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