LETTERS

Treatment of chronic pain with an auricular acupuncture device (P-Stim) in Singapore

The P-Stim (Biegler GmbH, Mauerbach, Austria) is a portable auricular electroacupuncture stimulation device used for the treatment of pain. Compared to conventional acupuncture, it has the advantage of continuous auricular stimulation for up to 4 days. Its tolerability and efficacy has been demonstrated in studies involving European patients with chronic pain. However, no data exists regarding its use in patients living in the tropics, where the weather tends to be hot and humid year-round. These are factors that may affect the wearability of P-Stim, especially if it’s to be worn over a prolonged period of time. Here we report the use of P-Stim in a series of subjects with chronic pain in a tropical country like Singapore.

METHODS

Nine subjects with chronic pain who had P-Stim treatment at the Complementary and Integrative Medicine Clinic of Tan Tock Seng Hospital in Singapore were studied. All subjects received two consecutive P-Stim treatment cycles. Each cycle involved wearing P-Stim for 4 days followed by 3 days without P-Stim. Three auricular acupoints were needled and these depended on the site and cause of pain. The acupoints were continuously stimulated with 2 mA of biphasic constant current at a low frequency of 1 Hz.

The outcome measure was pain intensity over the past week as assessed on a Visual Analogue Scale (VAS) of 0–10, with 0 indicating no pain and 10, severe pain. Pain was evaluated at baseline and at week 1 (after completion of first P-Stim cycle), week 2 (after completion of second cycle of P-Stim) and week 4. Adverse events related to use of P-Stim were documented.

RESULTS

A total of nine subjects (eight female, one male) were studied. The median age was 51 years and median duration of pain 24 months. The diagnosis of pain was cervical spondylosis (four), lumbar spondylosis (three) and migrainous headaches (two). Acupoints needled included Shenmen, Lumbar Vertebrae, Cervical Vertebrae, Forehead, Occiput, Kidney and Subcortex.

The VAS pain scores over time are shown in figure 1. Only six subjects completed the study. Three subjects withdrew from the study after completing the first P-Stim cycle because their pain was not alleviated by P-Stim treatment. For the remaining six subjects, there was a reduction in VAS scores from baseline to week 4, with the median VAS score decreasing from 7 at baseline, to 4, 2 and 3 at week 1, week 2 and week 4 respectively.

A total of eight adverse events were reported during the study. All were considered mild and were as follows: local pain as a result of stimulation of the device (three), nausea (two), dizziness (one) and local itch (two). Inconveniences with wearing the P-Stim device included difficulty sleeping on the side where the P-Stim was applied (one) and inability to wash one’s hair during the period the P-Stim was worn (one).

DISCUSSION

The results of this small case series suggests that auricular acupuncture with P-Stim generally effective in reducing pain severity in subjects with chronic pain, with four of nine subjects experiencing significant pain relief and better quality of life, and these improvements were maintained at up to 2 weeks after completion of treatment.

The effectiveness of P-Stim in the treatment of chronic cervical and low back pain had been shown by Sator-Katzenschlager et al previously. In both studies, no adverse events were reported and the device was well tolerated with only four patients finding it unpleasant and declining possible future treatment. In our study, eight adverse events and two inconveniences were reported respectively. All adverse events were considered mild. The fact that subjects in our study were required to wear P-Stim continuously for 72 hours as opposed to 48 hours in the studies by Sator-Katzenschlager et al could have contributed to the greater number of adverse events and inconveniences in our study.

Apart from the small number of subjects studied, the biggest limitation of this study is the short follow up period. In conclusion, this small case series of subjects with a variety of chronic pain conditions in Singapore suggests that auricular acupuncture with P-Stim is generally well tolerated, with four of nine subjects experiencing significant pain relief. Larger studies are probably needed to ascertain its long-term efficacy as compared to conventional body acupuncture.

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Competing interests: None.

Ethics approval: Ethics committee approval was obtained from the National Healthcare Group, Singapore.

Provenance and peer review: Not commissioned; externally peer reviewed.

REFERENCES

Acupuncture in the treatment of temporo-mandibular disorders in Sydenham’s chorea patient: a case report

A 33-year-old woman, a housewife with two daughters, initially presented at the acupuncture clinic with rapid, irregular and aimless involuntary movements of the arms and legs, trunk and facial muscles. The medical history revealed that at age of four the patient developed her first episode of rheumatic fever, which was not treated appropriately. Therefore, during the two pregnancies she was regularly treated for complications, and her daughters, initially presented at the acupuncture department referred her to the acupuncture treatment.

An evaluation of the patient’s disease history revealed that she had been experiencing a continuously temporo-mandibular joint pain (occlusal splint) for many years and she still presented the involuntary movements of the arms and legs, trunk, and facial muscles since she was 4-years-old. There is no data supporting a connection between chorea and temporo-mandibular joint dysfunction. Therefore, studies should be done in order to identify if the facial spasms in Sydenham’s chorea can leave to a temporo-mandibular joint dysfunction.

Acupuncture treatment may be worth trying in other patients with this condition.

CASE HISTORY
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doi: 10.1136/aim.2009.001388

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