Acupuncture for Headache: Possible Clinical Improvements—Analysis of Two Typical Case Reports

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ABSTRACT

Background: Various types of headache comprise a widespread health problem. Among the possible treatment options, acupuncture is one of the most effective, with the least number of adverse effects. While the locations of acupuncture points have long been established, slight and specific modifications in point locations, as well as needling angles and depths in each individual case, can increase the effectiveness of acupuncture treatment for some types of headaches.

Cases: Two typical “cases,” which are composites of several similar cases, are discussed. One case is a 31-year-old Caucasian woman with persistent headaches for 8 months and the other case is a 52-year-old Caucasian woman with frequent headaches for years. In both cases, usual care provided only temporary relief; acupuncture treatment was more effective.

Results: The patients’ headaches went away—as they usually do for months or even years after only several treatments, provided that the acupuncture practitioner finds the points to stimulate that can reproduce each individual patient’s exact symptoms of his or her headache.

Conclusions: In treatment of headaches, the effectiveness of acupuncture can be increased if the acupuncture practitioner identifies, or modifies, the point selection and/or location to identify active points. As the acupuncture practitioner examines the active points, he or she can monitor the treatment’s progress by palpating the points while observing and communicating with the patient about whether or not the headache is being reproduced.

Keywords: acupuncture, headache, myofascial trigger points, palpation, palpatory skills, local twitch response, De Qi

INTRODUCTION

RESEARCH STUDIES SHOW that acupuncture can be helpful for relieving migraines, tension headaches, and several other types of chronic headaches.¹ Research also suggests that acupuncture has had little success in treating cluster headaches.² Some researchers remain convinced that acupuncture’s effectiveness for treatment of any kind of headache is nothing other than a placebo effect.³ It can also be argued that acupuncture can result in a dramatically higher success rate if point selections and needling methods are modified for each individual patient, rather than using an

identical protocol for all patients suffering from the same type of condition. For best results, the modifications need to be introduced according to palpatory findings. The reason for this approach is that, with certain types of headaches, when the active points are identified in each individual patient, the effectiveness of an acupuncture treatment can be monitored by determining if any changes have occurred in the points that can reproduce the headache.

While there is a significant incidence of errors in Western diagnoses of headaches,⁴ acupuncture practitioners who use a Traditional Chinese Medicine (TCM) approach classify headaches differently, according to meridian innervation

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and *Zang-Fu* organ relationships. The scope of this article, however, requires focusing only on very general classical acupuncture methods: methods of observation and area palpation and then consequent therapeutic decisions that rely heavily on TCM's Four Examinations. The Four Examinations include (1) inspection, (2) listening and smelling, (3) inquiring, and, particularly, (4) palpation. They are fundamental diagnostic approaches in TCM.^{5,6} At this time, careful examination of acupuncture points is not part of mainstream clinical acupuncture practice in the West or even in modern China, and the current author has rarely seen acupuncture points being examined and described by researchers; this occurs most frequently among studies of trigger points and dry-needling techniques but not in acupuncture.

The criteria of subject selection and treatment modifications that researchers use in acupuncture research studies vary widely. In one study, for example, in which 401 patients who suffered from "chronic headache" were treated with acupuncture, "[t]he acupuncture point prescriptions used were individualised to each patient and were at the discretion of the acupuncturist."⁷ It is not known from this report exactly how the acupuncturists involved in the study diagnosed their patients or selected points for treatment. The subjects who received acupuncture treatment were compared with subjects who "received usual care from their general practitioner[s]" for headaches and who were asked to avoid acupuncture during the study. The trial lasted for 1 year, and information on the patients was collected every 3 months. The researchers' conclusion was that "[a]cupuncture in addition to standard care results in persisting, clinically relevant benefits for primary care patients with chronic headache, particularly migraine, compared with controls."⁷ Note that this study did not include sham acupuncture of any kind.

In another study, which included sham acupuncture in its design, the conclusion was: "Acupuncture was no more effective than sham acupuncture in reducing migraine headaches although both interventions were more effective than a waiting list control."⁸ In this study, the researchers used the same combination of points for all their subjects: GB 20, GB 40, GB 41, or GB 42; *Du Mai*, the Governing Vessel (GV) 20; LV 3; *San Jiao* 3 or 5; and Extra Point *Taiyang*.⁸ The only difference between the true and sham acupuncture groups was the achievement of Qi arrival (De Qi) to the needled site.

This observation was the focus of the white paper that the Society for Acupuncture Research issued in 2011, which identified two paradoxes in acupuncture research, one of which was that "a number of well-designed clinical trials have reported that true acupuncture is superior to usual care, but does not significantly outperform sham acupuncture, findings apparently at odds with traditional theories regarding acupuncture point specificity."⁹ It is highly probable that such a paradox has occurred and continues to do so, because the point selections in the studies reviewed in preparation of that article were taken directly from authoritative textbooks, without introduction of any modifications

for specific patient's conditions. Modifications, or, rather, specifications, introduced in point locations do not need to deviate from their classical locations, which typically describe areas too large for a single acupuncture needle.

Two typical "cases" of patients who suffer from chronic headaches are discussed here, emphasizing how point selection and location can be fine-tuned and tied to a specific patient's condition, thus, providing monitoring of the treatment's progress. No written or verbal consent was obtained for either of these "cases," because each "case" is a consolidation of 9 similar cases for Case Report # 1 and 4 similar cases for Case Report # 2, with ages of the patients being averages of the real patients' ages. All of these patients were treated in a small private practice setting.

CASES

Case Report #1

A 31-year-old woman made an appointment for an acupuncture treatment. Her chief complaint was a headache that she had been having almost constantly for several months. Initially, her primary-care physician treated her with no significant success. The woman was then referred to a neurologist, who ran a few tests and found nothing wrong with her. The next referral was to a pain-management specialist, who prescribed pain relieving medications that made the patient drowsy and nauseated. The woman's friends suggested trying acupuncture. During her initial visit, she reported feeling exhausted, because she had her headache both day and night, and could not sleep as well as she normally did.

Using classical TCM diagnostic methods, the patient's pulse and tongue were examined, and she answered questions that were relevant to her complaint to help establish the differential diagnosis. This patient appeared to have Qi and Blood Deficiency and Liver Qi Stagnation. Three sequential treatments—2 and 3 days apart—brought slight improvement. Given that the patient reported feeling headache in her entire head, the point selection was *Hegu* LI 4, *Touwei* ST 8, *Yintang*, *Shangxing* Du-23, *Taichong* LR-3; and then *Fengchi* GB 20, *Kunlun* BL 60, and *Houxi* SI 3⁵ during each of the 1 treatments, using 1", 34-gauge needles, until De Qi was achieved. The patient reported slight improvement after the first treatment, less improvement after the second treatment, and almost no improvement after the third session. She also reported feeling stiffness and discomfort in her neck. According to the rules of the Four Examinations, the patient's neck was examined. The tissues in her neck were rigid to the touch, more so immediately below her occiput.

Interestingly enough, pressure applied vertically to the skin surface can often produce no pain or discomfort in a patient, but light-pressure pinching of the same area can reveal a lot of additional and useful information.¹⁰ Such a difference most likely occurs because pressing points vertically to the skin

does not simulate the type of pressure that occurs naturally, while pinching does. What is more important, light pinching helps identify two coinciding factors: (1) rigidity of tissues in comparison to the surrounding similar anatomical structures; and (2) the clear, immediate reaction of the patient.

In the case of the patient who suffered from persistent headaches, the pinching made her shriek and grab the practitioner's hand when light pressure was applied to the upper portion of the sternocleidomastoid muscle on the right side and the upper portion of the trapezius muscle on the left side. Another crucial result from the pinching kind of palpation was that this patient, who had trouble identifying the exact location of her headache earlier, now pointed at the ST 8 area on her head, ipsilaterally, and reported that, when those points were pressed, her headache became much worse. It was an important breakthrough: The pressure that was applied to the small areas below the patient's occiput reproduced the pain that the patient was experiencing, which meant that the active points that could influence her headache had been identified.

During the 4 treatments that followed, the needles were inserted only in the rigid areas that were identified by lightly pinching the patient's upper neck and which coincided with the patient's instinctive and doubtless exclamations of either: "That's it!" or "No, but you're close." The needles were retained there for 15 minutes. Stimulation of the points through the needles was then applied gently, because the points were highly sensitive. Then, the needles were left inserted in the points for another 15 minutes. The patient reported that the intensity of her headache had decreased by ~50% after the first session of using *Ah-Shi* points exclusively and by ~80% after the second treatment. The third and fourth sessions took longer, as the acupuncture practitioner had to search for smaller points, while changing the angles and depths of the pinching. During these sessions, the acupuncturist switched from 34-gauge to 38-gauge needles, because some of the points were becoming significantly smaller. The patient reported feeling no headache for almost 1 year after those treatments. She then scheduled another appointment, because she had begun feeling mild headaches. She was then treated twice, after which she returned for only 1 more treatment 1½ years later.

Case Report #2

When a 52-year-old woman came in for an acupuncture treatment with the chief complaint of frequent headaches, the first thing the acupuncture practitioner did was examine her suboccipital region. The tissues in that area felt absolutely fine, and palpation produced no symptoms in this patient. The acupuncturist was about to revert back to the classical point selections, but—on an intuitive basis—he palpated the rest of the patient's neck and discovered muscle spasms and tissue rigidity superficial to the area of the C-7 vertebra and extending bilaterally along the upper trapezius muscles, more so on the right side. This finding might have

been irrelevant, but light pinching of these areas caused intense pain in the patient and, most importantly, reproduced her headache. Eighteen 38-gauge acupuncture needles were inserted in the points in and near the inferior portion of the patient's neck. Only those points were selected to put pressure (in a pinchlike manner) on areas that had reproduced the patient's headache. The patient reported that her headaches became 70% better after the first session and were completely gone after the second treatment. She came in one more time to ensure that everything was gone. The acupuncturist was able to find several small points level with the C-7 vertebra on which pressure was still reproducing a milder form of her original headache. These points were treated.

RESULTS

After treatment, patients' headaches resolved—as they usually do for months or even years after only several treatments, if the acupuncture practitioner finds the points to stimulate that can reproduce each individual patient's exact symptoms of the headache.

DISCUSSION

These findings raise questions about the kinds of points that were effective in the 2 cases discussed above. Considering that taut muscle bands on patients identified by using palpation are classified as myofascial trigger points in Western biomedical medicine,¹¹ the method described here may be interpreted as *myofascial trigger point stimulation*, rather than *acupuncture*. At the same time, a more detailed analysis of the nature of myofascial trigger points reveals that the definition of myofascial trigger points remains "inconsistent, incomplete, or controversial."¹² While historically, acupuncture points, *xue*, are translated as *caves* or *holes*,¹³ biomedical and clinical criteria for identification of acupoints remain unclear.¹⁴

The classification of points that were effective in the cases discussed above is not of primary importance here, however. The crucial findings were the two factors that played the decisive role in finding the correct, active points for each individual patient: (1) the type of palpation used and (2) reproduction of the patient's headache during the palpation of the points.

Finding points or areas pressing that can reproduce a patient's symptoms indicate which points have active influences on the manifestation of the patient's condition. While one point, typically in the area of *Tianzhu* BL 10, can reproduce an ipsilateral frontal headache, another point can reproduce an ipsilateral temporal headache accompanied by nausea, typically in the area of GB 20. A 1- or 2-mm shift within the same point, however, will reproduce only a fraction (the patient would feel the headache only in the

occiput) or a variation of a symptom (for example, a burning sensation or numbness in an area of the head) or a combination of symptoms (headache and nausea and/or metallic taste in the mouth). The fastest way to learn about the differences that various points produce is to compare the effects that pinchlike palpation produces on different points, at different depths, and at different angles on oneself.¹⁵

There is one more important issue to consider: With dry needling, a local twitch response is considered to be a signal of a successful treatment, although recent research suggests that dry needling can be just as effective without the local twitch response.¹⁶ In fact, the intensity of the stimulation needed to produce a local twitch response is intense, and it “can increase the risk of tissue fibrosis in some cases.”¹⁷ Similarly, De Qi is considered to be essential for an effective acupuncture treatment outcome, but some research studies suggest that whether or not De Qi is achieved appears to have little or no effect on the treatment outcome.^{18,19} In the kind of treatment described in this article, De Qi was definitely not needed. The reason for this viewpoint is that, due to specifics of the palpatory technique emphasized herein, the points that an acupuncturist will find are highly sensitive and the patient will simply not be able to tolerate an even slightly greater intensity of stimulation than that of a gentle tap of the needle insertion. The palpatory technique that was used in the cases included in this article was described by Shudo Denmei.¹⁰ The technique enables an acupuncturist to identify the precise depth and angle of active acupuncture points for each individual patient, because this helps to locate the points that produce an immediate symptomatic response in the patient.

The pinchlike palpation is crucial because it emulates the point stimulation that occurs most often naturally. When an individual flexes, extends, or rotates his or her neck, some of the soft tissues involved in the movement become stretched while others become compressed. Stretching of tissues can sometimes produce symptoms similar to those produced by compression, but light-pressure compression during palpation lets the practitioner find any spasm, adhesion, or fibrosis of tissues under the acupuncturist’s fingers. Typically, different pressure angles produce different or no effects on a patient’s symptoms. There is rarely a need to increase the pressure during palpation; a change in the angle and/or depth can reveal highly sensitive points suddenly, and needle insertion needs to be done at the same angle and depth that the fingers have just revealed. If no active points are found this way, then a different approach is needed for that particular patient and for his or her particular headache.

CONCLUSIONS

Points revealed by palpation of a patient’s neck should reproduce the symptoms of the headache that the patient experiences. The symptoms’ reproduction needs to coincide

with the abnormalities in the anatomical structures that the acupuncturist feels under his or her fingertips. While the quality of points can be described as myofascial trigger points or acupuncture points, trying different angles and depths of light-pressure tissue compression allows the acupuncture practitioner to identify the precise point location, which is impossible to do using textbook descriptions alone. The points’ variations identified this way are highly sensitive and require neither a local twitch response nor the arrival De Qi during needle insertion or stimulation. The modifications in palpation described in this article can increase clinical effectiveness of acupuncture treatment dramatically for various types of headaches.

AUTHOR DISCLOSURE STATEMENT

No financial conflicts of interest exist.

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