

# Treatment of Chronic Tension-Type Headache with Balance Acupuncture: A Case Study

## Abstract

This case study demonstrates the successful treatment of a 47-year-old female patient with chronic daily tension-type headache of six years duration. The patient received six 'Balance Acupuncture' treatments over a four-week period.

## Introduction

According to information provided by the German Association for Migraine and Headache, 70 per cent of Germans suffer from headache. The frequency of headache occurrence varies, but in nearly five per cent of people it occurs daily (Straube et al., 2013). Tension-type headache is the most common type of primary headache. The pain generally radiates from the upper back and especially the neck to the head, to produce various pain patterns affecting both sides of the head, the whole head, or the front of the head. The pain is usually described as a dull, oppressive pressure, and as mild-to-moderate in intensity, but it can also be severe. Episodic tension-type headache is defined as occurring on less than 15 days per month, whereas chronic tension-type headache occurs on more than 15 days per month, lasting for three or more months (Bendtsen et al., 2010).

The causes of tension-type headache include stress, sleep disorders, muscle tension, eye problems and sinus problems. Unlike migraines, tension-type headaches are not accompanied by symptoms such as photophobia, noise sensitivity, nausea or vomiting, and physical activity generally does not aggravate the headache symptoms. Conventional pharmaceutical treatment for headache pain involves the use of non-steroidal anti-inflammatory analgesics (NSAIDs), while low doses of the tricyclic antidepressant amitriptyline, other antidepressants, anticonvulsants and muscle relaxants are used for headache prevention (Gobel, 2012).

Many headache patients in Western countries seek out effective alternative and complementary treatments. One such alternative is 'Balance Acupuncture', which can provide fast pain relief within seconds of needle insertion (Whisnant & Bleecker, 2015).

## Balance Acupuncture

Balance Acupuncture, also called 'the Balance Method', 'distal point acupuncture', or '*I Ching*

Acupuncture' is based on the 2,500 year-old Chinese literary classic the *I Ching* (*Yi Jing*, or *Book of Changes*). From the perspective of traditional Chinese medicine, health is viewed as a state of harmony that emerges from the interaction of oscillatory systems, and disease is characterised by a state of discord. Hence, human diseases are considered to be due to disturbances in function rather than changes in structure (Chang, 2013). Balance Acupuncture seeks to re-balance this disordered interaction between body systems and restore harmony, thus restoring function and healing disease.

Balance Acupuncture is mainly applied to the treatment of pain, and is characterised by very fast pain relief - usually occurring within seconds of needle insertion. When treatment is carried out over a series of sessions pain-relief can also be long-lasting.

Acupuncturists trained in this method use only a few strategically placed needles, and characteristically these needles are not inserted directly into the area of pain. The points selected are distal to the painful site, and are usually located somewhere from the elbows to the hands, or from the knees to the feet. In this system pain is seen as a disturbance which needs to be balanced, irrespective of its root cause. The treatment principle is first to identify the channel which is affected by the pain, and then to balance the affected channel using points on corresponding channels according seven clearly defined systems (see Table A), until the pain is reduced or the patient is pain free.

## Choosing the balancing channel

In Balance Acupuncture, seven systems can be used to balance an affected channel:

- System 1: pairing same-name channels - channels of the upper extremities pair with their counterparts in the lower extremities that share their Chinese channel name (for example: hand Taiyin Lung treats foot Taiyin Spleen).

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## Keywords:

Acupuncture, Balance Acupuncture, Balance Method, distal point acupuncture, headache, tension-type headache, TCM

| Affected channel | System 1 | System 1A | System 2 | System 3 | System 4 | System 5 | System 6 |
|------------------|----------|-----------|----------|----------|----------|----------|----------|
| LU               | SP       | ST        | BL       | L.I.     | BL       | LIV      | LU       |
| L.I.             | ST       | SP        | LIV      | LU       | KID      | ST       | L.I.     |
| ST               | L.I.     | LU        | P        | SP       | P        | L.I.     | ST       |
| SP               | LU       | L.I.      | SI       | ST       | SJ       | HE       | SP       |
| HE               | KID      | BL        | GB       | SI       | GB       | SP       | HE       |
| SI               | BL       | KI        | SP       | HE       | LIV      | BL       | SI       |
| BL               | SI       | HE        | LU       | KID      | LU       | SI       | BL       |
| KID              | HE       | SI        | SJ       | BL       | L.I.     | P        | KID      |
| P                | LIV      | GB        | ST       | SJ       | ST       | KID      | P        |
| SJ               | GB       | LIV       | KID      | P        | SP       | GB       | SJ       |
| GB               | SJ       | P         | HE       | LIV      | HE       | SJ       | GB       |
| LIV              | P        | SJ        | L.I.     | GB       | SI       | LU       | LIV      |

**Table A: Channel balancing systems** [N.B.: Usually the opposite side from that which is affected is needled when using systems 1, 1A, 3 and 5. When using systems 2, 4 and 6, needling can be on either side]

- System 1A: a modification of system 1 - Taiyang treats Shaoyin, Shaoyang treats Jueyin, Yangming treats Taiyin (for example: in system 1 the foot Taiyang Bladder channel is treated using the hand Taiyang Small Intestine channel; in system 1A the foot Taiyang Bladder channel is treated via the internal-external relationship of the hand Taiyin Small Intestine channel to the hand Shaoyin Heart channel).
- System 2: pairing opposite channels based on their Chinese channel name - Taiyin treats Taiyang, Shaoyin treats Shaoyang, Yangming treats Jueyin.
- System 3: pairing channels based on paired internal-external zangfu relationships (for example: Large Intestine treats Lung).
- System 4: pairing opposite channels on the Chinese zangfu clock (for example: foot Taiyin treats hand Shaoyin)
- System 5: pairing neighbouring channels on the Chinese zangfu clock (for example: foot Taiyin treats hand Shaoyin).
- System 6: using the affected channel to treat itself.

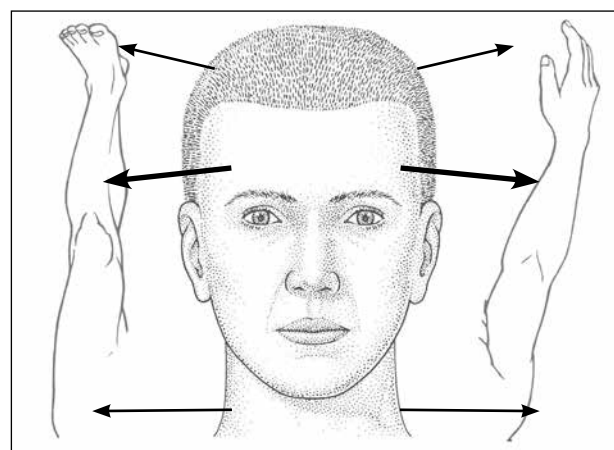
Balance is achieved by pairing the affected channel with the appropriate balancing channels, according to the specifications of each system. For example, there are five possible channels that can be used to balance a problem on the Lung channel: the Spleen channel, the Stomach channel, the Bladder channel, the Large Intestine channel, the Liver channel and the Lung channel itself.

### Choosing which points to needle - imaging

In Balance Acupuncture, needles are not inserted directly into the area of pain, instead, ‘imaging’ is used for point selection. This technique ‘images’ the affected body part onto a corresponding area of the body. A variety of different images are used - for detailed information on the theory of imaging, please refer to textbooks on the subject (Ross & Winarto, 2008; Whisnant & Bleecker, 2015). Pain, weakness or tightness along the affected channel

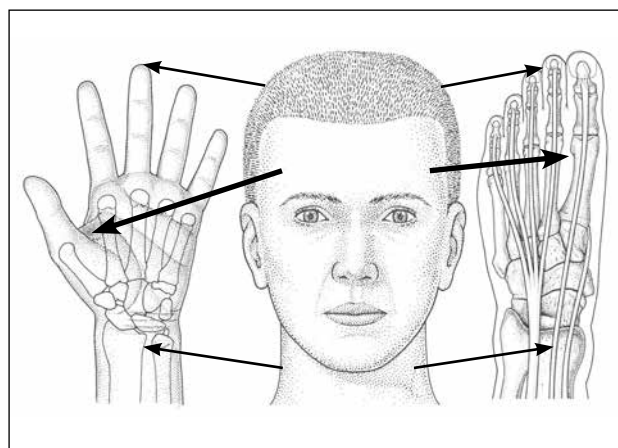
will often be reflected by tenderness on palpation of the corresponding area of the channel selected for needling. Needles are inserted into tissue which corresponds with that which is affected - using bone to treat bone, muscle to treat muscle, tendon to treat tendon, and so on. In the case presented here, imaging was used to select points on the legs, arms, hands and feet to treat the head (see Tables 1-3 and Images 1-3).

| Table 1: image of head projected onto leg or arm (reversed) |                     |                      |
|-------------------------------------------------------------|---------------------|----------------------|
| pain location in head                                       | area needled on leg | area needled on arm  |
| top of the head                                             | toes                | fingers              |
| forehead                                                    | area distal to knee | area distal to elbow |
| chin                                                        | hip joint           | shoulder joint       |



**Image 1: Image of head projected onto whole leg or arm (reversed)**  
Forehead maps to area distal to knee/elbow

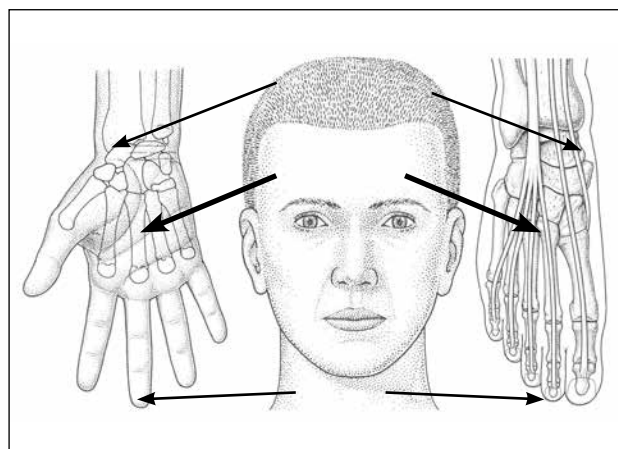
| Table 2: image of head projected onto hand or foot |                       |                       |
|----------------------------------------------------|-----------------------|-----------------------|
| pain location in head                              | area needled on hand  | area needled on foot  |
| top of head                                        | fingertips            | tips of toes          |
| forehead                                           | near knuckles of hand | near knuckles of foot |
| C7/T1 vertebrae                                    | wrist                 | ankle                 |



**Image 2:** Image of head projected onto hand or foot. Forehead maps to area near knuckles of foot

**Table 3:** image of head projected onto hand or foot (reversed)

| pain location in head | area needled on hand | area needled on foot |
|-----------------------|----------------------|----------------------|
| top of head           | wrist                | heel                 |
| forehead              | hand distal to wrist | foot distal to ankle |
| C7/T1 vertebrae       | fingertips           | tips of toes         |



**Image 3:** Image of head projected onto hand or foot (reversed). Forehead maps to hand distal to wrist, or foot distal to ankle

### Description of case

The patient was a 47-year-old female with a six-year history of tension-type headaches, diagnosed by a neurologist. Disorders of the eyes and sinuses, and other pathologies had been excluded.

The patient described her complaints as follows:

- Daily headaches
- Dull oppressive pressure over the whole forehead, worst above the eyebrows
- Pain varying from four to six on a ten-point visual analogue scale (VAS)
- Headaches worse with stress
- Treated with NSAIDs, mainly ibuprofen 400-800 mg - only when pain became intense

Other ailments included:

- Hypertension, treated with bisoprolol 2.5 mg (blood pressure in normal range)
- Moderate depressive episode, treated with escitalopram 10 mg
- Obesity (BMI 36)
- Deficiency of clotting factor XII, with a history of pulmonary embolism several years ago, treated with Coumadin
- High cholesterol, treated with atorvastatin 10 mg

### Intervention

The patient received six acupuncture sessions over four weeks. At each session, needles were retained for 30 minutes after insertion. The sensation of deqi was not explicitly elicited.

The patient's pain was reported as being on the forehead and worst above the eyebrow. According to TCM theory this is a Yangming-type headache, with the Stomach channel being mainly affected (although the Gallbladder channel could also be involved).

Acupuncture points were chosen according to the principles of Balance Acupuncture (see below). According to Table A, there are five possible ways to treat the affected Stomach channel: using the Lung, Large Intestine, Stomach, Spleen and Pericardium channels. Three different images (see Tables 1, 2 and 3) were used for point selection. All points were chosen to target the forehead area and treat the Stomach channel. The following steps outline how the balancing channels, images and points were chosen:

1. The foot treats the head (Table 2) via system 6, using Neiting ST-44 and Xianggu ST-43 (area near knuckles of foot treats forehead, Stomach channel treats itself).
2. The whole leg reversed treats the head (Table 1) via system 6, using Zusanli ST-36, Shangjuxu ST-37 and Tiaokou ST-38 (area below knee treats forehead, Stomach channel treats itself).
3. The whole leg reversed treats the head (Table 1) via system 3, using Yinlingquan SP-9 and Diji SP-8 (area below knee treats forehead, via paired internal-external channel - Spleen channel treats Stomach channel).
4. The hand treats the head (Table 2) via systems 1 and 5, using Sanjian L.I.-3 and Hegu L.I.-4 (area near knuckles of hand treats forehead, via same-name channel and paired Chinese clock channel - Large Intestine Yangming channel treats Stomach Yangming channel in both cases).
5. The hand reversed treats the head (Table 3) via system 1A, using Yuji LU-10 (hand distal to wrist treats forehead, Lung Taiyin channel treats Stomach Yangming channel).
6. The whole arm reversed treats the head (Table 1) via system 1A with Chize LU-5 and Kongzui LU-6 (area below elbow treats forehead, Lung Taiyin channel treats Stomach Yangming channel).

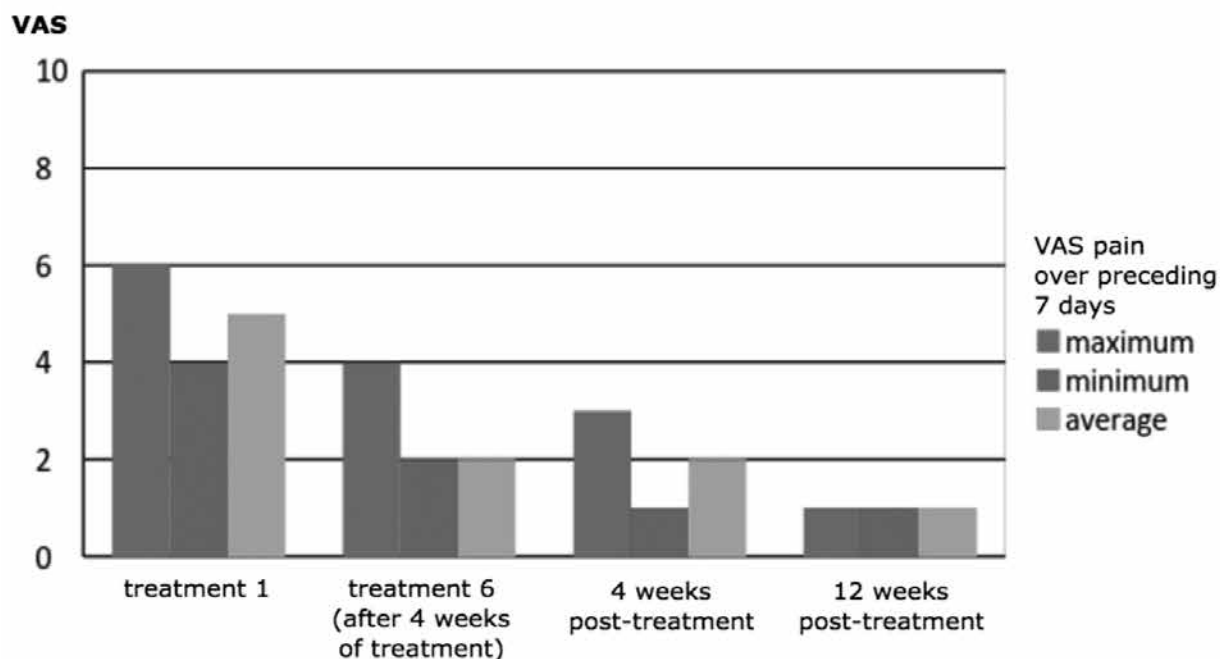


Figure 1 - VAS pain scores over time

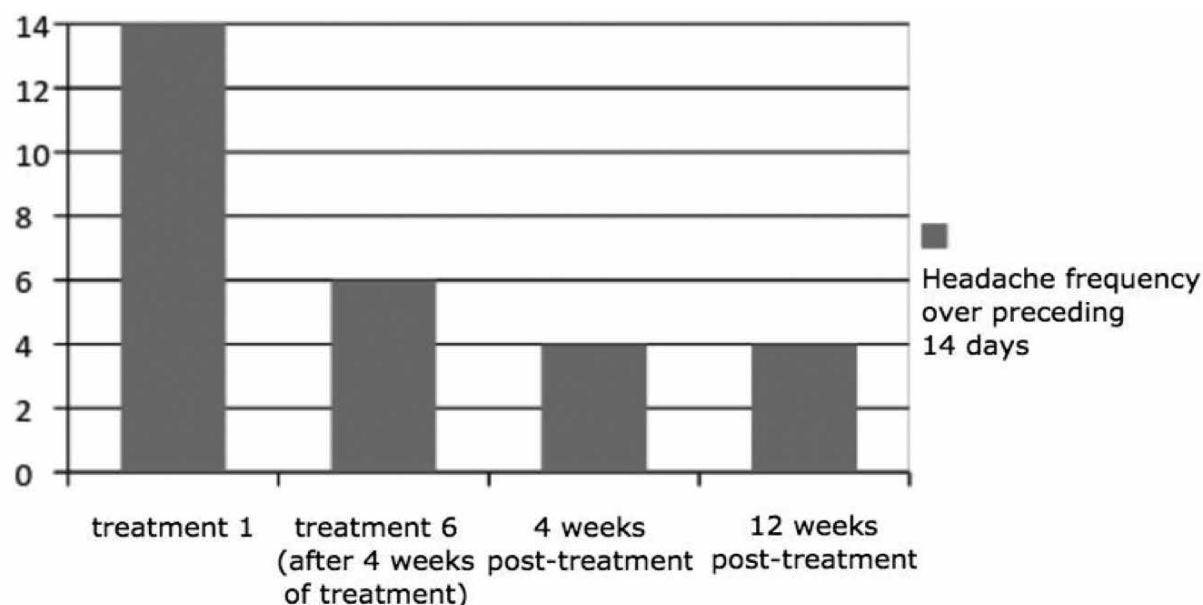


Figure 2 - Headache frequency over time

7. The whole arm reversed treats the head (Table 1) via system 2 and 4 with Quze P-3 and Ximen P-4 (area below elbow treats forehead, via opposite-name channel and opposite Chinese clock channel - Pericardium Jueyin channel treats Stomach Yangming channel in both cases).

### Procedure

For treatment with Balance Acupuncture it is helpful to treat the patient when the pain is acute. The patient came to the first treatment with pain rated at 5 (on a VAS of 10). During this treatment, needling began at the most distal

locations corresponding to the pain - using the foot and lower leg on both sides to treat pain located at the forehead (steps 1-3). Following these two steps, the patient reported that her pain had decreased to 3 on the VAS. Next, the hand was needled to treat the head (steps 4 and 5), which reduced the pain to 2. After needling the arm to treat the head (steps 6 and 7) the patient was completely free of pain. The whole procedure took only four to five minutes.

### Outcomes

A ten-point visual analogue scale (VAS) was used to measure the effect of the acupuncture treatments on

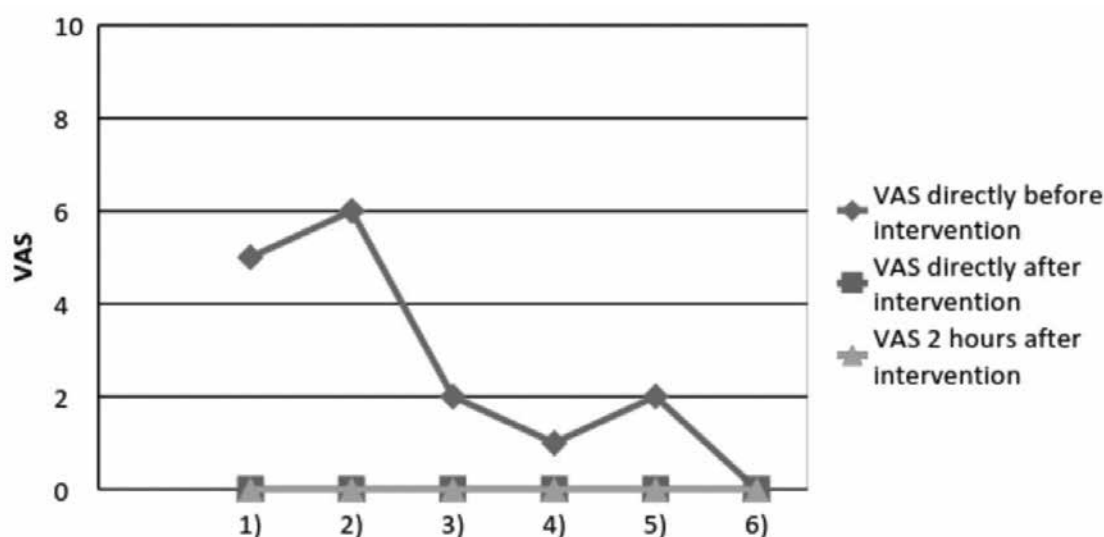


Figure 3 - VAS pain scores before and after each treatment

the patient's subjective experience of pain. Maximum, minimum and average pain were assessed on a scale of one to 10 at four time points: over the seven-day period preceding the first treatment, over the seven-day period preceding the final (sixth) treatment session, over the preceding seven-day period four weeks post-treatment and over the preceding seven-day period 12 weeks post-treatment. As shown in Figure 1, the maximum, minimum and average pain scores decreased over the course of treatment, and remained low at 12 weeks post-treatment.

Headache frequency was also assessed at four time points; over the 14-day period preceding the first treatment, over the 14-day period preceding the final (sixth) treatment session, over the preceding 14-day period four weeks post-treatment and over the preceding 14-day period 12 weeks post-treatment. Headache frequency was observed to decrease from daily before the commencement of treatment, down to four times over a 14-day period at 12 weeks post-treatment (see Figure 2).

Figure 3 shows the short-term effect of the treatments. The patient was treated a total of six times. During the first treatment session, the pain decreased from five to zero directly after acupuncture, and was still at zero two hours later. The result of the following four interventions was the same; pain decreased to zero directly after acupuncture and was still at zero two hours later. The patient arrived at the final treatment session reporting no pain.

## Conclusion

This case report shows that the effects of Balance Acupuncture on tension-type headache are rapid, clinically relevant and long-lasting. The immediate analgesic effects of the treatment mean that patients are easily convinced of its benefits and are therefore likely to think of it as a viable alternative to pharmaceutical painkillers. Because of this, it can act as a gateway to further acupuncture treatment for other conditions. Clinical trials using

*The patient was completely free of pain. The whole procedure took only four to five minutes.*

Balance Acupuncture are almost non-existent in Western medical databases, and large, high-quality studies are therefore required in order to develop the evidence base for this powerful method of pain relief.

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