Useful Method To Confirm Tender Points Of Primary Headache: Corresponding Points Of Koryo Hand Acupuncture Therapy

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Citation

Abstract
Purpose: Effective and objective method for decide the location of primary headache is needed. In this study we used corresponding points on the middle finger of hand of Korean Hand Therapy (KHT).

Subjects and Methods: The 600 outpatients with primary headache were included. History, physical exam and routine laboratory tests were performed. On physical examination, we palpated head and middle finger together and compared with each other. We decided the right or left side and sites of one side. The palpated points were bilateral forehead, periorbital, preauricular, temporal, parietal, and occipital, 2-3 centimeter apart from midline of head and neck from forehead to occipital. On the middle finger we pressed KHT points such as Urinary Bladder micromeridian(I) I-1, I-2, I-3 and Gallbladder micromeridian(M) M-1, M-2, M-3, M-4, M-5, and M-6 using tip probe and or roller stimulator.

Results: Among 400 migraineurs, 48 had pain sensitive points on the both sides of head and middle fingers, 196 had on the right side and 156 had on the left side. The painful sites were diffuse rather than localized. Among 200 patients with tension type headache, 67 had sensitive points on the right side along midline of head and middle finger, 105 had sensitive points on the left side along midline and 28 had sensitive points on both side along midline.

Conclusion: For diagnosis and treatment of primary headache objectively and effectively, we can save the time to decide and to confirm location during physical examination if we apply corresponding points of KHT.

INTRODUCTION
Importance of cooperative physician-patient relationship has been emphasized to obtain complete medical history for headache patients. In order to make diagnosis of primary headache, it is necessary to make standard protocol for physical examination, because any laboratory tests do not show specific findings. In the international headache classification, the location is one important diagnostic criteria for headache. Most standard textbooks are relatively brief in description of headache location. There are few articles concerning location of migraine headache and other headache, but there were no description how to decide the location which consists of side and site.

We need the technique or skill to confirm the side and sites in order to use the term ipsilateral or contralateral correctly in medical recording. We have to develop new method to decide the location exactly in order to use the term ipsilateral or contralateral exactly. Even we recorded the location depending on the patients’ word, it was subjective, neither objective nor scientific. There were no standard method to palpate the tender points on the head and other regions. Palpation is one of important physical examination which has been underestimated in practical view point. There are more than 100 points to palpate the site of the head. It takes a lot of time to palpate the pain sensitive points or tender points. Practically we can not allot enough time to do physical examination even it is vital to diagnose primary headache. We had better develop or choose effective and objective method to save the time for deciding the location (side and site) of pain sensitive points in patients complaining of headache.

We applied new method of detailed palpation on the hand in
order to find exact location of pain on the head that has not been described yet in conventional medicine and oriental or eastern medicine. That is Corresponding Method of Korean Hand Therapy. In this study Corresponding Method was proved to be objective and scientific if we applied it for diagnosis. It is also easy to learn and to practice.

SUBJECTS AND METHODS
The 600 patients with primary headache without other neurological or system diseases were included from 2000 to 2005 at Pusan National University Hospital. Headache questionnaire based on the international headache classification was used, routine laboratory tests were performed. On detailed physical examination, we palpated head and middle finger together and compared with each other. (figure 1, 2) On the head we palpated both sides and several sites with even pressure, which showed abnormal finding such as tenderness, tightness and sensitivity to pain. We decided the right or left side first and sites of one side. The palpated points were bilateral forehead, periorbital, preauricular, temporal, parietal, and occipital, 2-3 centimeter apart from midline of head and neck from forehead to occipital. There are more than 50 points on the one side of head. To confirm the side and site, we used simplified corresponding points on the middle finger. We pressed Korean Hand Acupuncture points such as Urinary Bladder micromeridian (I) I-1, I-2, I-3, I-4~8 and Gallbladder micromeridian (M) M-1, M-2, M-3, M-4, M-5, M-6, M-7~11 using KHT tip probe and/or roller stimulator made by KHT. We decided the term ipsilateral or contralateral when we noted the tender or pain points on the corresponding points on the middle finger using KHT tip probe or roller stimulator.

RESULTS
Among 600 persons having primary headache, 400 migraineurs were divided into two groups who had 55%, 40% ipsilateral side and 45%, 60% contralateral side who had complaints of pain on right and left side respectively. (Figure 3)

Figure 1
Figure 1: There are twenty tender points along gallbladder meridian on the head, among which five points GB-4,-9,-12,-14 and -20 are common points that are corresponding points M-2, M-3, M-4, M-1, and M-5. There are 10 tender points along urinary bladder meridian and I-1, I-2 and I-3 are corresponding points in Koryo Hand Therapy.

Figure 2
Figure 2: This picture showed pain sensitive points on the back side, gallbladder (GB) meridian as green line and urinary bladder (B) as black. There are corresponding points such as gallbladder micromeridian as green color and urinary bladder micromeridian as black color.

Figure 3
Figure 3
Figure 3: Pain localization (side) of 400 migraineurs. 55% of migraineurs complained of right side headache had tender points on right ipsilateral side, 45% had contralateral, 40% of migraineurs complained of left side headache had tender points left ipsilateral side, 60 had contralateral.

The site of 400 migraineurs were following, frontal 80, ocular 40, temporal 80, parietal 60, occipital 80, neck 90 and preauricular 20. (Figure 4)

Figure 4
Figure 4: Pain localization (site) of 400 migraineurs, the tender points are neck, frontal, occipital, temporal, parietal, ocular, preauricular area.

For more detailed location, we used KHT corresponding points.

Migraineurs had pain sensitive responses at M –1, M-2, M-3, M-4, M-5 and M-11 (including M-6 to M-10 of the neck) points of micromeridian of Koryo Hand Therapy (KHT). Among 400 migraineurs, 48 had pain sensitive points on the both sides of head and middle finger, 196 had on the right side and 156 had on the left side. The painful sites were diffuse rather than localized.

Patients with tension type headache had pain sensitive responses at I–1, I-2, I-3, I–4~8 points of micromeridian of Koryo Hand Therapy. Among 200 patients with tension type headache, 67 had sensitive points on the right side along midline of head and middle finger, 105 had sensitive points on the left side along midline and 28 had sensitive points on both side along midline. Checking the Corresponding Point on physical examination, we could confirm the location more easily and objectively.

CONCLUSION
A lot of tender points, pain sensitive points on the head were confirmed in primary headache patients. The points could be grouped in migraineurs and tension type headache. We could draw imaginary lines if we connected the tender points on the head and finger, which corresponded meridian and micromeridian systems documented in eastern medicine and KHT. Micromeridian means the meridian system in the hand which is relative small area comparing with whole body.

For diagnosis and treatment of primary headache objectively and effectively, The corresponding points of the hands are well related with tender points in the head. The localization of KHT is useful to detect the tender points in the body that is useful to define location such as side and site. We can save the time to decide and to confirm location during physical examination if we apply corresponding points of KHT. We treat headache more effectively with pharmacological such as botox and non-pharmacological approach if we use corresponding spots of KHT. KHT may be a useful diagnostic method to perform physical examination without any side effects or danger to the patient.

Figure 5
Table 1: Numbers of patients of migraine and tension type headache

<table>
<thead>
<tr>
<th></th>
<th>Right</th>
<th>Left</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical migraine</td>
<td>138/400</td>
<td>110/400</td>
<td>42/400</td>
</tr>
<tr>
<td>Migraine with tension type, same side*</td>
<td>204/400</td>
<td>154/400</td>
<td>68/400</td>
</tr>
<tr>
<td>Migraine with tension type, opposite side**</td>
<td>40/400</td>
<td>39/400</td>
<td></td>
</tr>
<tr>
<td>Tension type headache</td>
<td>67/200</td>
<td>155/200</td>
<td>28/200</td>
</tr>
</tbody>
</table>

* Migraine right side and tension right side, migraine left side and tension type left side, migraine both sides and tension type both sides
** Migraine right side and tension left side, migraine left side and tension type left side

DISCUSSION
According to international headache classification, there is documentation of location in detail. Migraine has characteristic of unilateral location, tension type headache has that of bilateral location, and even there is also notes: migraine headache is commonly bilateral in young children;
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adult pattern of unilateral pain usually emerges in late adolescence or early adult life. This study provides a uniquely detailed method to decide the location of primary headache. Previously we reported the importance of corresponding points in the hand which was helpful to confirm the location of headache on the head. It was found and developed by Yoo, the founder of Koryo Hand Therapy (KHT). A few articles concerning the location of headache were published without detailed documentation of methods.

Migraine headache is usually frontotemporal. Occipital headache in children, whether unilateral or bilateral, is rare and calls for diagnostic caution; many cases are attributable to structural lesion. The location determined by detailed palpation in this study is some different from other article. Figure 3 shows the migraine headache frequencies in the front, frontal, temporal, occipital, parietal, ocular and preauricular in order but other article shows eye, temporal area, frontal area, occipital, neck areas. The side of this study was; right side was predominant in migraineurs, left side was predominant in tension type headache, but other report for migraineurs only was left side 24.5%, right side 27.3%, either side 15.0% and both side 23.7%. That might be due to different method to decide the location. This study consisted of two parts to determined the location, one was detailed palpation on the head and the other was corresponding method of KHT.

This study suggests there are several forms of migraine and tension type headache in the view point of location. There are pure form migraine, combined type of migraine and tension type headache, and pure tension type headache. It is not easy to determine the location exactly through interview or history taking. We need new technique or method which should be reproducible and easy to practice. The corresponding technique of Korean Hand Therapy is new method to confirm the side and site.

According to KHT theory the hand is a microcosm of the human body and reflects the entire body. The Corresponding Point Theory is one principle of Korean Hand Therapy, that is, the hands reflect the anatomy and physiology of the whole body. There are five fingers corresponding to four limbs plus the head. The index finger and ring finger correspond to the arms, thumb and pinky to the joints of the legs, and the middle fingertip is in the relative position of the head. The palm corresponds to the front torso and the back of the hand to the person's back, and each part of the body corresponds to a specific area on the hand.

If there is pain or a disorder somewhere in the body, the corresponding points can be found on the hands by applying pressure to the hands as following. The middle phalanx of the middle finger corresponds to the neck. The distal phalanx of the middle finger corresponds to the face. The corresponding area of the posterior head and neck corresponds to the back side of the distal phalanx of the middle finger. The lateral side of the middle and distal section of the middle finger corresponds to the lateral side of the neck and face, respectively as figures below. The corresponding points will show up as tender points on the hand. Therefore, it is necessary to understand the relationship between the hand and the body. We can use the Corresponding Point to find the exact location of primary headache. We can individualize the headache patients and manage more effectively which may become the goal of headache management.

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