Forty-two Cases of Greater Occipital Neuralgia Treated by Acupuncture plus Acupoint-Injection

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Objective: To observe the therapeutic effect of acupuncture plus acupoint-injection on greater occipital neuralgia. Methods: The 84 cases of greater occipital neuralgia were randomly divided into two groups, with 42 cases in the treatment group treated by acupuncture plus acupoint-injection, and 42 cases in the control group treated with oral administration of carbamazepine. Results: The total effective rate was 92.8% in the treatment group and 71.4% in the control group. The difference in the total effective rate was significant ($P<0.05$) between the two groups. Conclusions: Acupuncture plus acupoint-injection is effective for greater occipital neuralgia, better than the routine western medication.

Key words: Greater occipital neuralgia; Acupuncture therapy; Acupoint injection

Greater occipital neuralgia refers to the pain in the occipital and cervical region due to the stimulation and compression to the greater occipital nerve caused by various pathogenic factors. From March 2002 to March 2005, the disease was treated by the authors using acupuncture plus acupoint-injection. The report is as follows.

CLINICAL MATERIAL

General data

All the 84 cases in this series were out-patients of Shenzhen Hospital of Armed Police and the First Affiliated Hospital of Guangzhou University of Traditional Chinese Medicine. They were randomly divided into two groups according to the visiting order. There were 42 cases in the treatment group, 27 males and 15 females, aged 18 – 56 years with an average of 37.6 years, and 2 days to 5 years in duration of disease with an average of 4 months. There were 42 cases in the control group, 25 males and 17 females, aged 19 – 53 years with an average of 36.5 years, and 3 days to 6 years in duration of disease with an average of 5 months. The general data were comparable between the two groups with no statistical difference ($P>0.05$).

Criteria for diagnosis

The diagnostic criteria for the greater occipital neuralgia described in Diagnosis and Treatment of Pain Syndrome were adopted: 1) A history of trauma in the neck or respiratory infection, influenza, tonsillitis, etc.; 2) A stabbing, lightning or cutting pain in the occipital region and the upper neck, aggravated by moving the head, coughing or sneezing; 3) Unilateral involvement, occasionally bilateral; 4) Obvious tenderness at the outlet of the greater occipital nerve, being the same location with Fengchi (GB 20); 5) Some patients with unknown causative factors.

Exclusive criteria

Those patients with occipital neuralgia caused by cerebral tumor, tuberculosis, trauma and congenital deformity of atlantooccipital region confirmed by X-ray, CT and MRI were excluded.

METHODS

Treatment group

Acupuncture plus acupoint-injection. Acu-points: Fengchi (GB 20), Wangu (GB 12) and Tianzhu (BL 10) on the affected side. Line acupunctures from Wangu (GB 12) of Gallbladder Meridian of Foot-
Shaoyang to Touwei (ST 8), from Tianzhu (BL 10) of Bladder Meridian of Foot-Taiyang to Quchai (BL 4), from Fengfu (GV 16) to Shenting (GV 24), and acupunctures at the cervical region in alignment were carried out.

Fengchi (GB 20), Wangu (GB 12) and Tianzhu (BL 10) were punctured perpendicularly 1 cun deep with the twisting reinforcing method in small amplitude and high frequency for 1 min. The needles in the cervical region were inserted perpendicularly 0.5 – 1 cun deep with the twisting reinforcing method. The 3 groups of the needles in alignment on the head were inserted horizontally 0.5 cun to subgaleal region along the scalp with the uniform reinforcing-reducing method and with an interval of 1 – 1.5 cun between the two points. The line acupuncture was given once daily, 10 sessions constituting one course. Acupoint-injection: Fengchi (GB 20) or tender point on the affected side was disinfected. A 5 ml disposable syringe was used to draw 1 ml of Vitamin12 and 1 ml of 2% Lidocaine and the needle of syringe was inserted into the point. Till the patient had the sensation of sourness and distention with no return of blood, the mixed liquid was slowly injected into the point, which was pressed for several minutes with a cotton ball after the needle was removed. Acupoint-injection was given once daily.

**Control group**

Carbamazepine (produced by Shenzhen Pharmaceutical Factory, batch number: 0202389) was administered to the patients at a dose of 0.1 g three times daily for ten consecutive days.

**Criteria for therapeutic effects**

Cured: The pain disappeared completely and no recurrence was found in the following-up half a year later. Improved: The pain relieved or the frequency of onset decreased. Failed: No improvement after treatment.

**RESULTS**

See the following table.

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>Cured</th>
<th>Improved</th>
<th>Failed</th>
<th>Total effective rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>42</td>
<td>31</td>
<td>8</td>
<td>3</td>
<td>92.8</td>
</tr>
<tr>
<td>Control</td>
<td>42</td>
<td>10</td>
<td>20</td>
<td>12</td>
<td>71.4</td>
</tr>
</tbody>
</table>

Note: The difference in total effective rate between the two groups was significant by $\chi^2$ test ($P<0.05$).

**COMMENT**

The modern medicine holds that the greater occipital neuralgia is usually caused by infectious diseases, such as infection of upper respiratory tract, influenza, tonsillitis or herpes zoster, which give stimulation to the greater occipital nerve. In addition, the trauma in cervico-occipital region and the diseases in the upper cervical region, such as osteoarthritis of cervical spine, muscle fibrositis, arachnoiditis and cervical spinal tumor, will directly stimulate the greater occipital nerve or press the posterior branch of the 2nd cervical nerve to cause the greater occipital neuralgia. Analgesics, such as carbamazepine, is often administered to treat this disease. In traditional Chinese, the head is thought to be “the confluence of all the yang meridians”, “the house of lucid yang”, also the sea of marrow; and all the qi and blood from five Zang-organs and six Fu-organs ascend to the head. The invasion of six exogenous pathogenic factors may block the lucid yang in the head or disorders of the internal organs may lead to derangement of qi and blood, causing the brain lack of nutrition, thus headache develops. As for the duration of illness, no matter it is due to exogenous pathogenic factor or endogenous factor, a prolonged course of illness will cause obstruction of qi and
blood and thus blockage of the meridians, resulting in pain. The treating principle should be promoting the circulation of qi and blood to remove blood stasis and stop pain. “The area where the meridian passes can serve as a guide to clinical indications”. Thus, selecting points along the related meridians should be adopted. Fengchi (GB 20), Wangu (GB 12) and Tianzhu (BL 10) are the key points to promote the lucid yang and dredge the channels to replenish the brain marrow. Needling in an alignment helps get a better result of promoting the circulation of qi and blood to stop pain. Vitamin B₁₂ is the common drug to nourish the nerves. Lidocaine has a mild antihistaminic and anticholinergic effect, exciting the central nerves and then inhibiting them. Acupuncture plus acupoint-injection can dredge the channels and expel wind and cold to stop pain.

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(Translated by Zhu Hanting 朱函学)

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