Clinical Observation of Acupuncture, Tuina and Acupoint Injection on Cervicogenic Headache

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Abstract
Objective: To investigate the clinical effect of acupuncture therapy and Tuina therapy in treating cervicogenic headache. Method: Forty inpatients, were divided into acupuncture and Tuina group (experiment group, n = 20), and Tuina and acupoint injection group (controlled group, n = 20) with random number table. Patients in the experimental group were firstly needled Fengchi (GB 20, major acupoint), Taiyang (Ex-HN 5), Baihui (GV 20), Shuaigu (GB 8), and Jiaji (Ex-B 2) around the affected cervical vertebrae, and applied Tuina treatment. Patients in the controlled group were treated with Tuina treatment, and then injection in Fengchi (GB 20) with 500 μg of Methycobal. Before and after treatment, all patients in both groups were evaluated with Evaluation Scale for Cervicogenic Headache. Result: After treatment, score of each item of patients in both two groups were enhanced (P < 0.01), and compared with patients in the controlled group, patients in the experimental group had higher scores of headache (13.1 ± 3.02 vs 10.8 ± 2.36, P < 0.01), daily life and working (3.3 ± 0.66 vs 2.6 ± 0.79, P < 0.01), mental state and social adjustment (3.1 ± 0.85 vs 2.1 ± 0.85, P < 0.05), and total points (24.6 ± 4.36 vs 20.3 ± 2.53, P < 0.01). Conclusion: Acupuncture combining with Tuina had better effects than acupoint with Tuina, and could effectively relieve pain, and enhance quality of life and ability of social adjustment in patients with cervicogenic headache.

Key Words: Headache; Acupuncture Therapy; Tuina; Massage; Hydroacupuncture

Cervicogenic headache refers to the headache syndrome caused by organic or functional impairment of the tissues around neck, occiput, or/and shoulders. In order to explore the clinical effects of combining method of acupuncture and Tuina, the authors had evaluated and compared the therapeutic effects of acupuncture, Tuina and acupoint injection in patients of cervicogenic headache since 2002.

Clinical Data

1. Diagnostic criteria

① Neck movement and/or sustained awkward head postures, or external pressure over the upper cervical or occipital region on the symptomatic side would make the headache more serious.

② Restriction of the range of motion in the neck.

③ Ipsilateral neck, shoulder, or arm pain of nonradicular nature or, occasionally, arm pain of radicular nature.

Phenomena in ① suffice as the key criterion for positivity, single ② or ③ is not enough for the criterion, but the combination of ① and ③ set forth as a satisfactory diagnosis.
Table 1. Comparison of general data of patients in the experimental group and the controlled group

<table>
<thead>
<tr>
<th>Group</th>
<th>Male</th>
<th>Female</th>
<th>Age (Years)</th>
<th>Mean age (Years)</th>
<th>Duration of disease</th>
<th>Mean duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>8</td>
<td>12</td>
<td>26-62</td>
<td>47.2</td>
<td>3 months - 5 years</td>
<td>22</td>
</tr>
<tr>
<td>Controlled</td>
<td>7</td>
<td>13</td>
<td>29-60</td>
<td>46.8</td>
<td>2 months - 7 years</td>
<td>24</td>
</tr>
</tbody>
</table>

2. Exclusive criteria
Headache caused by general infective diseases, hypertension, cerebrovascular diseases, cerebroma or ENT diseases.

3. General data
In the rehabilitation department of the Second Affiliated Hospital of Fujian College of TCM, 40 inpatients were allocated into two groups, acupuncture and Tuina group (experiment group, n = 20), and Tuina and acupoint injection group (control group, n = 20) with random number table. The general data of patients in both groups were exhibited in Table 1.

The age, gender, and duration of disease of patients in both group had no difference (P> 0.05), and had comparability.

Treatment Methods

1. Acupuncture
Acupoints: Fengchi (GB 20) as main acupoint, combining with Taiyang (Ex-HN 5), Baihui (GV 20), Shuaigu (GB 8), and Jiaji (Ex-B 2) around the affected cervical vertebrae.

Operation: In a sitting position, needles of 25-40 mm length were quickly inserted into the patient's acupoints with a routine depth, then, frequent manipulations of lifting, thrusting, and twisting were applied until appearance of needling sensation (Deqi), namely aching, distention and numbness. Needles were retained for 30 min, and manipulated once every 10 min.

2. Tuina
After having removed all needles, the patient in a pronation position, the manipulator pressed Fengchi (GB 20), kneaded and rolled muscles around the affected vertebrae, tenderness, upper back, and shoulders. And then, the patient in a supine position, pressed and kneaded Taiyang (Ex-HN 5), and Baihui (GV 20) with thumbs for 3-5 min with crescent strength. After that, pushed from Yintang (Ex-HN 3) to Taiyang (Ex-HN 5), via Shuaigu (GB8) to Fengchi (GB 20), then Tianzhu (BL 10), and last Jianjing (GB 21), and repeated these manipulations 5-8 times. Subsequently, kneaded bilateral temples for 3 min, and grasped and kneaded cervical Jiaji (Ex-B 2) for 3 min. At last, tractive and rotating manipulations were applied to end all treatments.

3. Acupoint injection
Fengchi (GB 20) were penetrated slowly until needling sensation appeared, then the injector was withdrawn, and if no blood, 500 μg of Methycobal was injected.

Patients in the experimental group were treated with acupuncture and Tuina therapies, once a day, and 10 sessions consisted of a treatment course. After 2-day break, patients accepted treatment of the second course, and then the therapeutic effects were observed.

Patients in the controlled group were treated with Tuina, which was applied once every 3 days, and acupoint injection, which was applied once every 6 days after Tuina, and after 4 treatments of acupoint injection, the therapeutic effects were surveyed.

Treatment Outcome

1. The evaluation criteria of therapeutic effects
Evaluation Scale for Cervicogenic Headache was established, which includes 5 items, 16 points for headache (8 points for degree, 4 point for frequency, 4 points for lasting time), 4 points for pain in the shoulder and the neck, 2 points for dizziness, 4 points for the ability of daily life and working, and 4 points for mental state and social adjustment. There are 5 grades in each item, and the total points of the scale are 30. All the data of both groups were evaluated using the software of SPSS12.0 with Q-test.

2. Treatment results (Table 2)
The impact of cervicogenic headache lies in degrees, frequencies, and lasting time of the pain. Evaluating Scale of Cervicogenic Headache could reflect the patients' general state. Before treatment, scores of all items in the experimental group were similar to that in the controlled group; after treatment, scores of all items in both groups increased markedly than that before treatment, and scores of headache, and daily life and working, and total scores of patients in the experimental group were higher than that in the controlled group. All these indicated acupuncture combining with Tuina had better effect than acupoint injection with Tuina.