Clinical Study on the Visceral Differentiation-Based Acupuncture Therapy for Insomnia

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Objective: To investigate the clinical effects of acupuncture for insomnia on the basis of visceral differentiation. Methods: Seventy cases of insomnia were randomly divided into a treatment group and a control group. The former was treated by acupuncture based on visceral differentiation and the latter by the routine acupuncture therapy. Results: The clinical effects were significantly better in the treatment group than that of the control group (P<0.05). Conclusion: The visceral differentiation-based acupuncture therapy may enhance the therapeutic effects for insomnia patients.

Key words: Insomnia; acupuncture therapy; visceral differentiation

With an acceleration of life rhythm and the aggravation of psychological stress, sleep disturbance has become one of the major problems. It is reported that about 40% of the ordinary people have suffered a lot from somnipathy, with prevalence in women aged 35-54 years.1,2 The sedatives and hypnotics commonly used central nervous system, and may cause addiction and induce adverse side effects.1,3 Nowadays, acupuncture has been used for treatment of insomnia with better therapeutic results and less side effects.4,5 The following is a clinical report for insomnia patients treated by visceral differentiation-based acupuncture therapy.

GENERAL DATA
All the seventy cases in this series were outpatients from the Acupuncture Department of Heilongjiang TCM University in the period from March 2005 to July 2006. They were randomly divided into a treatment group and a control group. In the treatment group of 35 cases, 15 were male and 20 female, aged 17-67 years (averaging 44.6 years), with the duration of illness ranging from 2 months to 20 years (averaging 5.5 years). Of the 3.5 cases in the control group, 16 were male and 19 female, aged 18-62 years (averaging 45.5 years), with the duration of illness ranging from 1 month to 22.5 years (averaging 5.4 years). No significant differences were noted between the two groups in sex, age, the illness duration and sleep quality (P>0.05).

Diagnosis criteria6
1) Somnipathy is the main problem, with such insomnia symptoms as difficulty in falling asleep, easy to be awake and difficult to sleep again, dream-christurbed sleep, waking up earlier but feeling no refreshment. 2) The above symptoms appear at least 3 times a week with a lingering course over one month. 3) The somnipathy seriously affects the daily life and social activities. And 4) The symptoms of insomnia are not induced by physical and/or neurological disorders.

The TCM visceral differentiation
Clinically, insomnia can be classified into the following five patterns. 1) Involvement of the brain: headache, with a heavy feeling, distending sensation in the head, dizziness, and amnesia. 2) Involvement of the heart: breath, oppressed feeling in the chest, and lassitude. 3) Involvement of the spleen and stomach: abdominal distention after meals, anorexia, nausea, diarrhea with undigested food. 4)
Involvement of the liver and gallbladder: restlessness, irritability, stiffness in the chest, emotional disturbance with frequent sighing. 5) Involvement of the kidney: soreness and weakness in the lumbar region and knees, tinnitus, seminal emission, irregular menstruation, dysmenorrhea, distension in the breasts, and poor memory.

METHODS

1) In the treatment group, the basic points used were Baihui (GV 20), Shenting (GV 24), Anmian (Extra), Shenmen (HT 7), Neiguan (PC 6), Sanyinjiao (SP 6), and Zusanli (ST 36). The supplementary points selected for the pattern with involvement of the brain were Yintang (EX-HN 3), Shangxing (GV 23), Zulinqi (GB 41), and Shenshu (BL 23); for involvement of the heart: Xinshu (BL 15), Jueyinshu (BL 14), Qihai (CV 6), and Shanzhong (CV 17); for involvement of the spleen and stomach: Pishu (BL 20), Weishu (BL 21), Zhongwan (CV 12), Tianshu (ST 25), and Fenglong (ST 40); for involvement of the liver and gallbladder: Ganshu (BL 18), Fengchi (GB 20), Taiyang (EX-HN 5), and Taichong (LR 3); and for involvement of the kidney: Shenshu (BL 23), Taixi (KI 3), Guanyuan (CV 4), and Yinlingquan (SP 9). 2) The point prescription for the control group consisted of Baihui (GV 20), Shenting (GV 24), Anmian (Extra), Shenmen (HT 7), Neiguan (PC 6), Sanyinjiao (SP 6), Zusanli (ST 36), and Hegu (LI 4).

The filiform needles (0.32 mm × 40 mm) were inserted into the points after sterilization with the uniform reinforcing-reducing method, and then retained for 50 min. The treatment was given once daily, 10 treatments constituting one therapeutic course, with a 2-day interval between courses.

Evaluation of the therapeutic effects was made after two courses of treatment and a one-month follow-up.

Criteria for therapeutic effects

The following is a formula for the international standardized sleeping rate: The sleeping rate = the actual sleeping time/ the total duration from lying on bed to getting out of bad 100%.

According to the sleeping detection method issued by WHO, the sleeping quality was classified into 5 grades. Grade I: The sleeping rate was 70–80%, and the patient could manage to sleep. Grade II: The sleeping rate was 60–70%, and the patient had difficulty in sleeping. Grade III: The sleeping rate was 50–60%, and the patient had dyssomnia. Grade IV: The sleeping rate was 40–50%, and the patient had moderate dyssomnia. Grade V: The sleeping rate was 30–40%, and the patient had severe dyssomnia.

Assessment of the clinical effects: 1) Cured: The symptoms disappeared, the sleeping rate was over 75%, and the hypnotics were suspended. 2) Markedly relieved: The symptoms were much relieved, the sleeping rate was over 65%, and the hypnotics were suspended. 3) Improved: The symptoms were ameliorated, the sleeping rate was over 55%, and the hypnotics were basically suspended, or the dosage was reduced by 3/4. 4) Failed: No improvement in sleeping quality, the sleeping was less than 40%, and the hypnotics were depended.

RESULTS

All the patients had completed the therapies. The results showed that the therapeutic effects in the treatment group were significantly better than that of the control group (Table 1). And the sleeping quality was improved remarkably in the treatment group as compared with the control group (Table 2).

Table 1. The therapeutic effects in the groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Cases</th>
<th>Cured</th>
<th>Markedly relieved</th>
<th>Improved</th>
<th>Failed</th>
<th>Total effective rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group</td>
<td>35</td>
<td>15</td>
<td>12</td>
<td>7</td>
<td>1</td>
<td>97.14%*</td>
</tr>
<tr>
<td>Control group</td>
<td>35</td>
<td>11</td>
<td>10</td>
<td>9</td>
<td>5</td>
<td>85.70%</td>
</tr>
</tbody>
</table>

Note: Intergroup comparison, \( \chi^2 = 3.97, P<0.05 \).
Table 2. Sleep quality in the two groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Cases</th>
<th>Grade I</th>
<th>Grade II</th>
<th>Grade III</th>
<th>Grade IV</th>
<th>Grade V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group</td>
<td>35</td>
<td>4</td>
<td>5</td>
<td>10</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Post-treatment</td>
<td></td>
<td>18</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Pre-treatment</td>
<td>35</td>
<td>3</td>
<td>7</td>
<td>11</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Post-treatment</td>
<td></td>
<td>11</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: P<0.05 (Ridit test).

DISCUSSION

Sleep is very important for building up the people's health. It can promote restoration and development of the physical and mental abilities, and it is closely related with the growth, development and metabolism of the human body and with the people's memory. Therefore, researches on sleep have been made in many fields, involving medicine, psychology, culture and comparative biology, etc; and achievements have been obtained in physiology, pathology, pharmacology, and in the clinical treatment.

Insomnia is one of the symptoms in patients with somniphathy. Modern medicine may perhaps ignore the organic whole of the human body in their researches on the mechanism of sleep and on the treatment of its related disorders. For example, the medicines commonly used may act directly on the central nervous system (CNS), which may cause addiction, abstinence syndrome and the hangover manifestations. For psychogenic insomnia patients, the use of sedatives can bring about no satisfactory results, but give rise to some problems.14-16.

Insomnia is not a disease but rather a symptom. It may accompany many different kinds of disorders. The pathogenesis is mainly associated with the imbalance between yin and yang and the disorder of qi and blood in the heart, gallbladder, spleen and kidney, resulting in malnutrition of the heart and mental disturbance. Therefore, insomnia should be attributed to dysfunction of the zangfu organs; and the visceral differentiation is the most fundamental method in TCM diagnosis.17-20

The present study was made according the TCM theory of viscera, channels and collaterals. In addition to the commonly-used points for insomnia, the five visceral points: Xinshu (BL 15), Ganshu (BL 18), Pishu (BL 20), Weishu (BL 21) and Shenshu (BL 23) were also selected to regulate the functions of zangfu organs and harmonize the qi and blood, which may help tranquilize the mind. The adjunct points were mostly selected from the Bladder Meridian and the Governor Vessel. Because the functional activities of the viscera are related to the two meridians,21 and the points selected from the two meridians are indicated for treating both the mental disorders and the diseases of the relevant visceral organs. 21,22 Therefore, the visceral differentiation-based acupuncture therapy the authors adopted is actually for regulation of the visceral organs and for relief of the insomnia symptoms as well.

REFERENCES

8. Lagarde D, Batejat D. Evaluation of drowsiness during


