Clinical Observation on Treatment of Genual Osteoarthritis
By Needle-Warming Therapy plus Chinese Herbal Drugs

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Abstract Purpose: To observe the clinical effect of combination of acupuncture and Chinese herbal
drugs for genual osteoarthritis. Methods: 138 cases of the patients were randomly divided into the
treatment group of 85 cases treated by electric acupuncture and moxibustion plus Chinese herbal
drugs and the control group of 53 cases treated by oral administration of medications. The patients
stopped treatment for one month after the treatment for one month, then the therapeutic effects were
observed and compared. Results: The total effective rate was 89.4% in the treatment group and
56.6% in the control group, with extremely significant difference (P < 0.01) between the two groups.
Conclusion: Electric acupuncture and moxibustion plus Chinese herbal drugs have a marked and
irrefutable therapeutic effect on genual osteoarthritis.

Key Words Acupuncture and Moxibustion; Acupuncture Medication Combined; Osteoarthritis; Knee
Joint; Randomized Control Trials

Genual osteoarthritis is clinically manifested by local
pain, stiffness, limited activity of the knee joint, deformed
enlargement of the whole joint, and even nodules. We
have treated this disease by acupuncture plus Chinese
herbal drugs.

Clinical Materials

1. Diagnostic criteria
The diagnostic criteria are stipulated upon Diagnostic
Basis and Criteria of Cure and Improvement of Clinical
Diseases[2].

① Often seen in those with high age and traumatic
injury in the joint, or with static dysfunction, change of
bone nutrition, and existence of the factors of body
figure and occupation.
② Slow onset, without general symptoms.
③ Stiffness, pain and limited motion, cracking sound
during motion in the joints, or accompanied by joint
deformity and hydrops in the articular cavity.
④ X-ray photography shows stenosis in the articular
space, sclerosis in articular surface, cystic change of
the spongy bone at the joint end, corpus liberum in the
joint.

2. General materials
Totally, 138 cases of the outpatients in the acupuncture
clinic were recruited and divided randomly into the
treatment group and control group by drawing lots.
Among 85 cases in the treatment group, there were 32
males and 53 females, with the age ranging from 52 to
80 years old, at the average age of 61.7 years old, and
with the duration ranging from one year to 20 years, at
the average of 6.72 ± 5.34 years. Among 53 cases in
the control group, there were 20 males and 33 females,
with the age ranging from 48 to 73 years old, at the
average age of 58.3 years old, and with the duration
ranging from 2 years to 15 years, at the average of 5.14 ± 2.53 years. All the cases were strictly screened, with rheumatoid factor and anti-“O” test being all negative in the laboratory tests. There was no significant difference and in sex, age and duration between the two groups.

Therapeutic Methods

1. Treatment group

Main acupoints: Yinlingquan (SP 9), Zusanli (ST 36), Neixiyan (Ex-LE 4), Dubi (ST 35), Xuehai (SP 10) and Liangqiu (ST 34) in the sick side.

Additional acupoints: Weizhong (BL 40), Yaoyangguan (GV 3), Shenshu (BL 23), Zhishi (BL 52), Zhaohai (KI 6) and Taixi (KI 3) were added for insufficiency of the liver and kidney. Pishu (BL 20), Geshu (BL 17) and Sanyinjiao (SP 6) were added for deficiency of qi and blood.

Operation: After routine disinfection, the filiform needles 0.35 mm in diameter and 40 mm in length were selected. After the needles were inserted and the needling sensation was obtained, one piece of moxa stick in length of about 2-3 cm was put on the needle handle and ignited. After moxibustion, G6805 Electric Acupuncture Apparatus was connected and switched on for 30 min, by sparse and dense wave, with the intensity of stimulation within the patient's tolerance. The treatment was given once every day, with 10 times as one course of the treatments. Totally, three courses of the treatments were given, and the therapeutic effects were observed one month after the treatment.

Chinese herbal medicine was taken every day, modified basically upon “Pubescent Angelica and Loranthus Decocction”, composed of Radix Angelicae Pubescentis (独活), Ramulus Loranthi (寄生), Rhizoma Pinelliae (半夏), Radix Puerariae (葛根), Radix Clematidis (威灵仙), Fructus Chaenomelis (木瓜), Radix Notoginseng (田七), Agkistrodon (蕲蛇), Radix Pseudostellariae (太子参), Radix Astragali (黄芪), Rhizoma Atractylodis Macrocephale (白术), Fructus Oryzae Germinat (谷芽) and Radix Glycyrrhizae (炙甘草). Three doses were taken every week. One week made one course of the treatments and totally four courses of the treatments were given. One month after taking herbal decoction, the therapeutic effects were observed.

2. Control group

Indomethacin was taken orally, 25 mg each time, three times a day, and Fenbid was taken orally, 500 mg each time, twice a day, totally for one month.

Therapeutic Effects

1. Criteria of therapeutic effect

In reference to the criteria of the therapeutic effect on genual osteoarthritis by ACR, the criteria were stipulated in the following.

Clinical control: Pain disappeared, with the deformity corrected and the joint functions basically restored.

Remarkable effect: Pain was remarkably relieved, with the deformity basically corrected and the joint functions improved.

Improvement: Pain was alleviated and the joint functions were improved.

Failure: No change in the symptoms and no improvement in the joint functions.

2. Therapeutic results

Table 1. Comparison of therapeutic effects between two groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>CC</th>
<th>RE</th>
<th>Improvement</th>
<th>Failure</th>
<th>TER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>85</td>
<td>46</td>
<td>26</td>
<td>4</td>
<td>9</td>
<td>89.4%</td>
</tr>
<tr>
<td>Control</td>
<td>53</td>
<td>16</td>
<td>10</td>
<td>4</td>
<td>23</td>
<td>56.6%</td>
</tr>
</tbody>
</table>

Notes: CC, clinical control; RE, remarkable effect; TER, total effective rate.

By statistic management, there was significant difference (P < 0.01) in the clinical control rate and the total effective rate between the treatment group and the control group, and the therapeutic effect was better in the treatment group than in the control group.

3. Case example

The patient, female, 66 years old, Canadian overseas Chinese, first visit on Nov. 9th, 2002, had pain in both knees for over 10 years, in constant attacks and aggravated after the joint activity, without redness and swelling and deformity, and the pain could not be alleviated effectively by rest and medications. The knee activity was obviously