Clinical Observations on the Treatment of Lumbar Intervertebral Disc Protrusion by Acupuncture and Tuina

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Abstract
Objective: To investigate the efficacy of acupuncture and point injection in cooperation with Tuina and reposition for treating lumbar intervertebral disc protrusion.
Methods: Treatment was given by first acupuncture, then point injection and last Tuina and reposition. It was administered once daily, 6 times as a course and compared with simple Tuina and reposition. Results: Both the effective rate in the clinical treatment and the cure rate in the same period were significantly higher in the treatment group than in the control group. Conclusion: A composite treatment by acupuncture and point injection in cooperation with Tuina and reposition is better in curative effect and shorter in the course of treatment than simple Tuina and reposition.

Key Words: Acupuncture Therapy; Hydro-acupuncture; Tuina; Intervertebral disk Displacement; Massage

Clinical Data

Clinically, lumbar intervertebral disc protrusion is a commonly and frequently encountered disease, and acupuncture-moxibustion, massotherapy, external application of herbal medicine, traction, point injection and needle knives can produce a satisfactory effect. From Sep, 2003 to Jun, 2005, the author treated 100 patients with lumbar intervertebral disc protrusion, 50 by acupuncture and point injection in cooperation with Tuina and reposition (briefly treatment group) and simple Tuina and reposition (briefly control group) groups in order of the patients' visit. Of the 50 cases of the treatment group, 28 were male and 22 female; the youngest was 24 years old and the oldest 68; the shortest duration of disease was 2 days and the longest 30 days; 3 had the position of the protrusion at L4-5, 32 at L5-S1 and 15 at L4-S1; 47 had a pain in one leg and 3 in two legs. Of the 50 cases of the control group, 31 were male and 19 female; the youngest was 21 years old and the oldest 70; the shortest duration of disease was 1 days and the longest 25 days; 4 had the position of the protrusion at L4-5, 30 at L5-S1 and 16 at L4-S1; 48 had a pain in one leg and 2 in two legs. Statistically there were no significant differences in sex, age, disease duration, symptoms and signs between the two groups (P > 0.05), indicating comparability.

Therapeutic Methods

1. Acupuncture
Main points: Qihaishu (BL 24), Dachangshu (BL 25), Guanyuanshu (BL 26) and Huantiao (GB 30).
Adjunct points: They were selected by syndrome differentiation according to the leg pain, the position of numbness or the position referred to. For example, Chengfu (BL 36), Yinmen (BL 37), Weizhong (BL 40) and Chengshan (BL 57) were
selected if there were numbness and pain in the posterior part of the leg; Fengshi (GB 31), Zusanli (ST 36) and Xuanzhong (GB 39) were selected if there were numbness and pain in the lateral part of the leg.

Methods: Forty mm filiform needles were used for Weizhong (BL 40), Zusanli (ST 36) and Xuanzhong (GB 39) and 75-100 mm filiform needles for the other points. It was best if there was a sensation of soreness, numbness or electric shock in the leg that went to the toe. A G6805-1 electroacupuncture instrument was connected, with continuous waves used. The needles were retained for 20-30 min.

2. Point injection

The place at 1.5 cun lateral to the middle line on the intervertebral space where the protrusive intervertebral disc was situated and the tenderness point found in the leg with numbness and pain were used for point injection. One mg Cobamamide Tablets (produced by Shanghai first biochemic pharmaceutics limited company, pharmaceutically authorised number: H31022962) was dissolved in 2 ml water for injection drawn into a 5 ml syringe with a size 5 needle. After routine sterilization, the needle was rapidly inserted and the medicine injected after needling sensations of soreness and distension were produced and no blood drawn. Half to one ml was injected into each point.

3. Reposition by Tuina

The first step was to relax the muscles of the lower back and the lower limb. The methods of pressing, elbow-rolling and kneading were used to relax the latissimus dorsi, the quadratus lumborum, the sacrospinalis, the iliopsoas, the gluteus maximus, the biceps femoris, the gastrocnemius and the soleus.

The second step was to press the point. The elbow or the thumb was used to press points Qihaishu (BL 24), Dachangshu (BL 25), Yaoyan (Ex-B 7), Huantiao (GB 40), Yinmen (BL 37), Fengshi (GB 31), Weizhong (BL 40), Zusanli (ST 36), etc.

The third step was to correct the deflective spinous process and the disturbance of the small joint. The method of lumbar vertebra location rotation reposition was used. The concrete method was as follows. The patient was asked to sit in a reposition chair with one hand holding the occiput and the other hand placed before the chest, and the two legs fixed. The doctor sat behind the patients with the thumb of one hand holding the deflective spinous process and the other hand passing under the axilla on the head holding side of the patient to hold the shoulder on the other side and rotate the lumbar part by forward flexion. The deflective spinous process was forcibly moved back with the thumb when the patient's lumbar part was rotated to the maximum, with a snap indicating the reposition often sensed or heard. That was performed once on the right and the left separately.

The above treatment was provided once daily, 6 times as a course.

The treatment group first received acupuncture, then point injection and last Tuina and reposition by rotation. The control group only received the above reposition by Tuina.

Therapeutic Results

1. Criteria of curative effects

According to Criteria of Diagnosis of And Curative Effects on Diseases in Traditional Chinese Medicine issued by national administration of TCM in 1994.

Cure: The lumbocrural pain disappeared. Straight leg raising test was more than 70 degrees. The patient could do his former work.

Improvement: The lumbocrural pain was relieved. The lumbar activity improved.

Ineffectiveness: The symptoms and signs did not improved.

2. Curative effects

The results were statistically analyzed after 1-3 courses of treatment in both groups. SPSS 12.0 software was used. A Ridit analysis was made for a comparison of the clinical effects between the two groups (P < 0.05) (see table 1). A χ² test was conducted for a comparison of the cure time between the two groups (P < 0.01). It was showed that the clinical efficacy rate and the cure rate during the same period were significantly higher in the composite treatment group than in the control group.

Table 1. Comparison of the clinical effects between the two groups (Case)

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Cure</th>
<th>Improvement</th>
<th>Ineffectiveness</th>
<th>Total efficacy rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>50</td>
<td>44</td>
<td>5</td>
<td>1</td>
<td>98.0</td>
</tr>
<tr>
<td>Control</td>
<td>50</td>
<td>30</td>
<td>15</td>
<td>5</td>
<td>90.0</td>
</tr>
</tbody>
</table>

Note: A comparison between the treatment and control groups, U = 2.46, P < 0.05

Table 2. A comparison of the cure time between the two groups (Case)

<table>
<thead>
<tr>
<th>Group</th>
<th>1 course of treatment</th>
<th>2 courses of treatment</th>
<th>3 courses of treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>23</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>Control</td>
<td>6</td>
<td>9</td>
<td>15</td>
</tr>
</tbody>
</table>

Note: A comparison between the treatment and control groups, χ² = 19, P < 0.01