Clinical Observation of a Combination of Acupuncture and Drug Administration for Non-specific Acute Lumbar Sprain

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【摘要】目的:观察针药并用治疗非特异性急性腰扭伤的临床疗效。方法:将69例患者按就诊顺序随机分为针药并用组、针刺组和药物组。针刺组24例，采用针刺治疗，每日1次，共治疗5次；药物组20例，采用口服双氯芬酸钠治疗，50 mg每次，每日2次，连服5日；针药并用组25例采用与针刺组、药物组相同的针刺和药物治疗。以疼痛量表和下腰痛量表评价临床疗效。结果:三组患者治疗后在疼痛，活动度方面均有一定改善，但针药并用组疗效最佳，与针刺组、药物组比较，差异有统计学意义（P<0.01）；针刺组与药物组比较，差异无统计学意义。结论:针药并用治疗急性腰扭伤疗效优于单纯针刺治疗或常规剂量双氯芬酸钠治疗。

【关键词】针刺疗法；针药并用；腰痛；扭伤和劳损

【Abstract】Objective: To observe the clinical effects of a combination of acupuncture and drug administration for non-specific acute lumbar sprain. Methods: Sixty-nine cases were randomly allocated into a combination group, an acupuncture group, and a drug group according to the visiting sequence. Patients in the acupuncture group (n=24) were treated with acupuncture daily for 5 d, 20 patients in the drug group were treated with oral Diclofenac Sodium, 50 mg per time, twice per day, for 5 d, and 25 patients in the combination group were treated with methods in both the acupuncture group and the drug group. The Numerical Rating Scale (NRS) and the Roland-Morris Disability Questionnaire (RMDQ) were used to evaluate the therapeutic effects. Results: All patients in the three groups got improvement in pain and movement, the combination group had the best effects (P<0.01), and there was no significant difference between the acupuncture group and the drug group. Conclusion: Combination of acupuncture and drug has a better effect than single acupuncture or routine treatment of Diclofenac Sodium on acute lumbar sprain.

【Key Words】Acupuncture Therapy; Acupuncture Medication Combined; Low Back Pain; Sprains and Strains

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1 General Data

1.1 Inclusion criteria

Acute lower back pain, restricted movements, or accompanied with radiating leg pain. The disease duration was less than 2 weeks, and there was no history of back pain in past 4 weeks before the onset.

1.2 Exclusion criteria

Lumbar trauma, spine-derived pain (tumor, inflammation, infection, fracture, or syndrome of
cauda equina); muscular weakness, sensory paralysis, weakness or hyperfunction of tendon reflex; history of peptic ulcer; recent medical history of nonsteroidal anti-inflammatory drug (NSAIDs) or anticoagulant, allergic history of NSAIDs; severe abnormal function of heart, liver or kidney.

1.3 Clinical data

All 69 cases were out-patients, and randomly allocated into three groups based on the visiting sequence. There were no significant difference in gender, age and duration among the three groups.

Table 1. Comparison of general data among the three groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>Male/female</th>
<th>Age (years)</th>
<th>Duration (days)</th>
<th>NRS</th>
<th>RMDQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combination</td>
<td>25</td>
<td>15/10</td>
<td>35.00±8.95</td>
<td>2.84±2.15</td>
<td>6.66±0.97</td>
<td>12.72±2.37</td>
</tr>
<tr>
<td>Drug</td>
<td>20</td>
<td>12/8</td>
<td>36.15±9.50</td>
<td>3.65±1.57</td>
<td>6.25±1.07</td>
<td>10.85±2.92</td>
</tr>
<tr>
<td>Acupuncture</td>
<td>24</td>
<td>13/11</td>
<td>38.17±10.21</td>
<td>2.50±1.18</td>
<td>5.98±0.87</td>
<td>11.87±2.80</td>
</tr>
</tbody>
</table>

2 Treatment Methods

2.1 Acupuncture group

Major acupoints: Yaotongdian (Ex-UE 7), Weizhong (BL 40), and Ashi point.

Adjunct acupoints: Houxi (SI 3) and Shenmai (BL 62) were added for pain in the Governor Vessel, Yanglao (SI 6) and Kunlun (BL 60) for pain in the Bladder Meridian, and Waiguan (TE 5), Zulinqi (GB 41) and Yanglingquan (GB 34) for pain in the Gallbladder Meridian or Belt Vessel.

Operation: The patient stood, and was asked to bend, extend and rotate the waist within tolerance. Meanwhile Yaotongdian (Ex-UE 7) and Weizhong (BL 40) were punctured with needles of 0.3 mm in diameter and 40 mm in length. Then the patient sat or lay prone while other acupoints were punctured until needling sensation arrived. The needles were retained for 30 min, and manipulated every 10 min. The treatment was done once daily for 5 d.

2.2 Drug group

Diclofenac Sodium was administered orally, 50 mg per time, twice one day for 5 d.

2.3 Combination group

Patients in the combination group were treated with methods in both the acupuncture and the drug groups.

Patients in different groups were treated at different times to avoid information exchange among patients to make results exact.

3 Results

3.1 Evaluating indexes

The Numerical Rating Scale (NRS, 0= no pain, 10= the most severe pain) was used to evaluate pain severity, and the Chinese Roland-Morris Disability Questionnaire (RMDQ) to evaluate the lumbar movement (0= free movement, and 24= no movement)[1].

Minimal clinically important change (MCIC) of NRS in non-specific lower back pain was 3.5-4.7 points in the report of Van der Roer N[2]. Ostelo RW considered MCIC of NRS as 2 points, and MCIC of RMDQ as 5 points for patients with lower back pain[3].

3.2 Treatment results

The data were expressed with $\bar{x} \pm s$, and analyzed with Student-Newman-Keuls test.

After treatment, pain and movement of the patients in the three groups had improved, and the combination group proved better than the acupuncture group and drug groups ($P<0.01$). There was no difference between the acupuncture group and the drug group, but RMDQ in the drug group was less than MCIC in previous reports[3]. These results indicate that the combination of acupuncture and drug had a better effect on acute lumbar sprain than single acupuncture or routine treatment of Diclofenac Sodium.