Effects of the Multiple Needleling with Shallow Insertion for Simple Obesity: A Clinical Observation on Lipid Metabolism and on the Chest, Waist and Hip Circumferences

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Objective: To observe the therapeutic effects of multiple needleling with shallow insertion for simple obesity, and its influence on the chest, waist and hip circumferences, and lipid metabolism. Methods: 20 cases which match the criteria for diagnosis of simple obesity were treated by multiple needleling with shallow insertion. Treatment was given once daily for 20 days as a total therapeutic course. Results: After 20 treatments, the body weight, waistline, and the serum total cholesterol (TC), the fasting triglyceride (TG) and low-density lipoprotein (LDL) were significantly changed (P<0.05). Conclusion: The therapy can provide good therapeutic effects for simple obesity.

Key words: obesity; multiple needleling with shallow insertion; lipid metabolism

By using multiple needleling with shallow insertion, the author has treated 20 cases of simple obesity, and achieved satisfactory therapeutic effects. This was reported as follows:

CLINICAL MATERIALS

General Data
All 20 cases in this series were outpatients of the First People’s Hospital, aged 16–56 years (mean, 30.3±10.86), with an average illness course of 9.20±7.12 years.

Criteria for Diagnosis
According to the Broca method,¹ the related indices for adult standards are as follows:

Body Weight (BW, kg) = (Body Height (BH, cm) − 100) × 0.9;

Body Mass Index (BMI) = Body Weight (kg) / (Body Height (cm))²

Fat Percentage (F%) for Males = 1.2 × BMI + 0.23 × age − 16.2, and Fat Percentage (F%) for females = 1.2 × BMI + 0.23 × age − 5.4.

People with BW >20%, F% >30% and BMI >23 or with two of the three values above the norm were diagnosed to have obesity.

Criteria for Study Inclusion
People, aged 16–65 years, with BW >20%, F% >30% and BMI >23 or with two of the three index values above the norm were included.

Criteria for Study Exclusion
Patients were excluded from the study if they were 1) under 16 or over 65 years of age; 2) pregnant or lactating; 3) currently defined as obese; 4) unable to cooperate or comply with treatment; or 5) treated with medications or physiotherapies in the past 3 months.

Methods for Observation
The following items were recorded on the first visit: name, age, gender, body height, body weight (BW), waist circumference (WC), appetite, defecation and heredity factor. Their BW and WC were measured once again with the same balance and scale after the last treatment.

The fasting triglyceride (TG), total cholesterol (TC) and low-density lipoprotein (LDL) were determined before the first treatment and after the twentieth treatment.
Criteria for Therapeutic Effects
According to the Instructions for Clinical Studies on New Chinese Medicines, markedly effective results are evidenced by BW reduced by $\geq 5$ kg or WC reduced by $\geq 10$ cm, improved results are characterized by BW reduced by $\geq 2$ kg or WC reduced by $\geq 5$ cm, failed results are shown when: BW is reduced by $<2$ kg or WC is reduced by $<5$ cm.

Statistical Analysis
The SPP11.0 software was used for statistical analysis with $\chi^2$ and $t$ tests.

METHODS
Forty needles were used for shallow insertion into the points selected mainly from the Hand-and Foot-Taiyin channels, the Yangming channel, the Foot-Shaoyin channel and the Ren Channel, in combination with the points selected from the four extremities such as Tianfu (LU 3), Xiabai (LU 4), Jianyu (LI 15), Shouwuli, Quchi (LI 11), Hegu (LI 4), Zusanli (ST 36), Shangjuxu (ST 37), Futu (ST 32), Xuehai (SP 10), Yinlingquan (SP 9), Sanyinjiao (SP 6), Fenglong (ST 40), Taichong (LR 3) and Neiting (ST 44). The 28-gauged needles 1 cun in length were rapidly inserted into each of the points to a depth of 0.5 cun without the need of needling sensation, and remained for 30 minutes. The treatment was given once daily, with 20 treatments constituting the therapeutic course.

The patients were instructed to 1) recognize the hazards of obesity and benefits of weight reduction, and the difficulty that should be overcome in a long-term weight reduction process; 2) have 3 regular meals a day with less fried and greasy food, and to avoid foods that are rich in purine; 3) chew the food frequently during eating; and 4) give up the bad habit of eating between meals.

RESULTS
The Indexes related to Obesity (see Table 1)
As shown in Table 1, all the indexes observed were lowered in varying degrees after treatment; the differences in BW and WC were significant ($P<0.05$), and that in BMI was very significant ($P<0.01$), but no obvious differences were found in CC, HC and F% ($P>0.05$).

The Index of Lipid Metabolism (see Table 2)
As shown in Table 2, after treatment, the serum TG, TC and LDL levels were all markedly decreased; the difference in TG was very significant ($P<0.01$), and that in TC and LDL was significant ($P<0.05$).

<table>
<thead>
<tr>
<th>Index</th>
<th>Mean Before</th>
<th>Mean After</th>
<th>Difference</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>BW</td>
<td>69.19±10.08</td>
<td>63.06±8.57</td>
<td>6.04±2.32</td>
<td>2.645*</td>
</tr>
<tr>
<td>BMI</td>
<td>26.15±2.30</td>
<td>23.46±1.78</td>
<td>2.69±0.95</td>
<td>3.666**</td>
</tr>
<tr>
<td>CC</td>
<td>92.95±6.82</td>
<td>90.67±5.68</td>
<td>2.95±1.28</td>
<td>1.031</td>
</tr>
<tr>
<td>WC</td>
<td>85.52±8.90</td>
<td>80.28±7.92</td>
<td>5.49±1.77</td>
<td>2.387*</td>
</tr>
<tr>
<td>HC</td>
<td>99.52±8.32</td>
<td>96.23±6.93</td>
<td>3.50±2.43</td>
<td>1.443</td>
</tr>
<tr>
<td>F%</td>
<td>31.20±4.03</td>
<td>27.39±4.25</td>
<td>3.71±1.21</td>
<td>2.371</td>
</tr>
</tbody>
</table>

Notes: *$P<0.05$, compared BW and WC before and after treatment; **$P<0.01$, compared BMI before and after treatment.

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</thead>
<tbody>
<tr>
<td>TG</td>
<td>2.30±0.57</td>
<td>1.56±0.42</td>
<td>1.74±0.25</td>
<td>3.11**</td>
</tr>
<tr>
<td>TC</td>
<td>5.28±0.65</td>
<td>4.81±0.39</td>
<td>1.61±0.32</td>
<td>2.25*</td>
</tr>
<tr>
<td>LDL</td>
<td>3.07±0.49</td>
<td>2.54±0.48</td>
<td>1.82±0.36</td>
<td>2.26*</td>
</tr>
</tbody>
</table>

Notes: *$P<0.05$ and **$P<0.01$, compared before and after treatment.
COMMENTS

Obesity is mainly caused by diet and inactivity in daily life, or can result from age-induced dysfunction of the spleen and stomach in transporting and digesting of food, which results in endogenous generation of the turbid phlegm and fat, leading further to dysfunction of the lungs, liver and kidneys. Multiple zang-fu organs and multiple meridians may be involved in the pathological changes, and obesity is the result of disharmonies between yin and yang and zang and fu organs. The disease location is mainly in the spleen and stomach with the lungs, liver and the kidneys. Therefore, treatment should invigorate the spleen and stomach, minimize phlegm to reduce lipids; and at the same time relieve the depressed liver, regulate the lungs and replenish the kidney essence.

Clinical evidence has demonstrated that acupuncture at the abdominal points of Tianshu (ST 25) and Zhongwan (CV 12) can adjust the lipid metabolism. The results from the present study also show that multiple needling with shallow insertion can not only reduce BW, but also obviously lower the TC, TG and LDL levels, indicating that acupuncture can improve lipid metabolism. The therapy is effective for simple obesity with no side effects, and it requires no needling sensation, making it well accepted by patients.

REFERENCES


(Translated by CHEN Zheng-qiu 陈正秋)