Anti-obesity Effect of Aster Spathulifolius Maxim extract

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Introduction and Objectives

*Aster spathulifolius Maxim* is one of plants of chrysanthemum, which has shown an anti-obesity activity in diet induced mice model. We performed clinical trial for evaluating the anti-obesity efficacy and safety of Aster spathulifolius Maxim extract on obese human.

Materials and Methods

This study was randomized, double-blind, placebo-controlled clinical trial in Korea. A total of 41 obese subjects (body mass index (BMI) 25-30 kg/m²) aged ≥ 20 years were randomized to one of two groups: (1) placebo group (n=20), (2) Aster spathulifolius extract (AE) group (AE 700mg/day, n=21).

All subjects were instructed to take a pill of once-daily regimen for 12 weeks. Weight, BMI, waist circumference, fat mass [measured by bioimpedance method, DEXA, and abdominal computed tomography (CT)], and laboratory test were assessed at baseline and 12 weeks.

![Poster presented at:](https://example.com/Poster)

Figure 1. The changes of body weight after 12-week treatment (*p<0.05 compared with placebo group).

Results

Baseline characteristics of the subjects were not differ between the two groups (Table 1). Body weight was significantly decreased in AE group after 12-week treatment (placebo vs. AE: -0.08 ± 2.11 kg vs. -3.30 ± 3.15 kg, p<0.05, Figure 1). Body fat mass reduction was significantly shown in AE group after 12-week treatment (placebo vs. AE; bioimpedance method: -0.51 ± 1.89 kg vs. -2.38 ± 2.30 kg, p<0.05; DEXA: 0.38 ± 1.59 kg vs. -2.26 ± 2.37 kg, p<0.05; visceral fat area in CT: 8.11 ± 18.13 cm² vs. -24.9 ± 37.0 cm², p<0.05; subcutaneous fat area in CT: 5.51 ± 34.58 cm² vs. -24.4 ± 31.8 cm², p<0.05. Figure 2 and 3). The changes of lipid profile, fasting plasma glucose, and HbA1C did not differ between two groups (Table 2). In safety, there were no drug-related adverse events during the study.

![Obesity and cardiovascular endocrinology](https://example.com/Poster)

Figure 2. The changes of body fat mass after 12-week treatment (*p<0.05 compared with placebo group).

![Obesity and cardiovascular endocrinology](https://example.com/Poster)

Figure 3. The changes of fat area in abdominal CT after 12-week treatment (*p<0.05 compared with placebo group).

Table 1 - Baseline characteristics of the study subjects

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Male [%]</th>
<th>Height (cm)</th>
<th>Weight (kg)</th>
<th>BMI (kg/m²)</th>
<th>Waist circumference (cm)</th>
<th>Bioimpedence method</th>
<th>DEXA</th>
<th>Total fat (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.0 ± 9.2</td>
<td>10 (50.0 %)</td>
<td>168.5 ± 11.4</td>
<td>77.1 ± 11.3</td>
<td>27.1 ± 1.3</td>
<td>96.1 ± 5.9</td>
<td>25.1 ± 5.0</td>
<td>32.0 ± 6.4</td>
<td>17357 ± 3220.9</td>
</tr>
</tbody>
</table>

Conclusions

In conclusion, Aster spathulifolius Maxim extract significantly decreases body weight and body fat mass in obese human.

References