Review: orlistat and sibutramine are modestly effective for weight loss at 1 year


Clinical impact ratings GP/FP/Primary care ★★★★★ IM/Ambulatory care ★★★★★★★ Endocrine ★★★★★★★

What is the effectiveness of anti-obesity medications in trials with ≥1 year follow up?

METHODS

Data sources: Medline (1966 to December 2002), EMBASE/Excerpta Medica (1980 to December 2002), Cochrane Controlled Trials Register (Issue 3, 2002), Current Controlled Trials metaRegister of Controlled trials (December 2002), bibliographies of relevant studies, and experts and manufacturers.

Study selection and assessment: randomised controlled trials (RCTs) of approved anti-obesity agents for weight loss or weight maintenance in adults with body mass index (BMI) ≥30 kg/m² or ≥27 kg/m² plus ≥1 obesity related comorbid condition (eg, coronary artery disease, stroke, type 2 diabetes, heart failure, dyslipidaemia, hypertension, reproductive or gastrointestinal cancer, gallstones, fatty liver disease, osteoarthritis, and sleep apnoea), had blinding of patients and healthcare providers, included a placebo group or another anti-obesity drug group, used an intention to treat analysis, and had ≥1 year of follow up. Studies of off-label use, drugs with high addiction potential that preclude long term use, or investigational, herbal, or alternative compounds were excluded. Study quality was assessed.

Outcome: weight loss at 1 year.

MAIN RESULTS

Only trials of orlistat and sibutramine met the selection criteria. 16 RCTs (11 of orlistat and 5 of sibutramine) were included. 14 RCTs (11 of orlistat and 3 of sibutramine) were weight loss trials in which drug therapy was used in conjunction with a weight loss diet for 1 year. 2 RCTs of sibutramine were weight maintenance trials with 12 to 18 month follow up.

11 weight loss trials (n = 6021, mean age 49 y, 71% women, mean BMI 35.7 kg/m²) used standard doses of orlistat (120 mg, 3 times/d). 3 weight loss trials (n = 929, mean age 47 y, 80% women, mean BMI 33.4 kg/m²) used sibutramine, 10 to 20 mg/day. Patients who received orlistat had a 2.7 kg (95% CI 2.3 to 3.1 kg; 11 RCTs) greater weight loss than patients who received placebo.

3 RCTs greater weight loss (4.6%, CI 3.8 to 5.4; 3 RCTs) than placebo group patients. More orlistat and sibutramine group patients achieved 5% and 10% weight losses than placebo group patients (table).

2 sibutramine weight maintenance trials (n = 627, mean age 49 y, 83% women, mean BMI 37 kg/m²) used a 10 mg/day dose of sibutramine. Results from these 2 trials were not pooled, but both showed greater weight loss in participants who received sibutramine than did those who received placebo.

CONCLUSION

Orlistat and sibutramine are modestly effective for weight loss at 1 year.

Abstract and commentary also appear in ACP Journal Club.

Orlistat (Orl) or sibutramine (Sib) v placebo for weight loss at 1 year*

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Number of trials</th>
<th>Weighted event rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Orl</td>
</tr>
<tr>
<td>5% weight loss</td>
<td>11</td>
<td>52%</td>
</tr>
<tr>
<td>3% weight loss</td>
<td>3</td>
<td>–</td>
</tr>
<tr>
<td>10% weight loss</td>
<td>10</td>
<td>–</td>
</tr>
<tr>
<td>3% weight loss</td>
<td>3</td>
<td>–</td>
</tr>
</tbody>
</table>

*Abbreviations defined in glossary; weighted event rates, RBI, NNT, and CI calculated from data in article using a random effects model.