Review: clonidine is more effective than placebo for long term smoking cessation, but has side effects


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

Is oral or transdermal clonidine more effective than placebo for achieving long term smoking cessation?

METHODS

Data sources: Cochrane Tobacco Addiction Group trials register, Medline, and PsychLit (up to May 2004); and the email newsgroup of the Society for Research on Nicotine and Tobacco for unpublished studies.

Study selection and assessment: randomised, placebo controlled trials that compared oral or transdermal clonidine (maximum daily dosage ≥ 0.2 mg) with placebo. Methodological quality of individual studies was assessed for randomisation procedure and blinding.

Outcomes: smoking cessation at ≥12 weeks (biochemical verification of sustained abstinence assessed ≥12 wk after the end of treatment).

MAIN RESULTS

6 trials (n = 776) met the inclusion criteria. Assessment of blinding and details of the randomisation procedure were not reported in any of the studies. 4 of the 6 trials used biochemical verification of smoking abstinence using plasma cotinine (<15 μg/ml), salivary cotinine (<20 μg/ml), expired carbon monoxide (<10 ppm), or random plasma thiocyanate monitoring. Volunteer participants were recruited from community settings (5 trials) and an internal medicine clinic, and were described as smokers (>10 cigarettes/d, 2 trials) or heavy smokers (>20 cigarettes/d or >1 pack/d for 3 years, 4 trials). Clonidine was taken orally (dosage varied from a maximum of 0.15–0.45 mg/d) (3 trials) or transdermally (dosage 0.1–0.3 mg/d) (3 trials). Dosage was individualised according to tolerance or body weight, and built up before quit day. Participants in 5 trials received behavioural therapy or counselling, and 1 trial randomised half the clonidine and control groups to behaviour therapy. More patients who received clonidine stopped smoking than did those who received placebo (table). However, clonidine was associated with such dose dependent side effects as dry mouth and sedation.

CONCLUSION

Oral or transdermal clonidine is more effective than placebo for achieving long term smoking cessation but is associated with side effects including dry mouth and sedation.

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Clonidine v placebo for smoking cessation at ≥12 months*

<table>
<thead>
<tr>
<th>Number of trials</th>
<th>Number of patients</th>
<th>Weighted event rates</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Clonidine</td>
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<tr>
<td>6</td>
<td>776</td>
<td>23%</td>
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*Abbreviations defined in glossary; weighted event rates, RBI, NNT, and CI calculated from data in article using a fixed effects model.