A lifestyle intervention or metformin prevented or delayed the onset of metabolic syndrome in persons at risk


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

In persons with impaired glucose tolerance, does an intensive lifestyle intervention (ILS) or treatment with metformin plus standard lifestyle recommendations prevent onset or promote resolution of metabolic syndrome?

METHODS

In persons with impaired glucose tolerance, does an intensive lifestyle intervention (ILS) or treatment with metformin plus standard lifestyle recommendations prevent onset or promote resolution of metabolic syndrome?

**MAIN RESULTS**

The cumulative incidence of metabolic syndrome was lower in the ILS and metformin groups than in the placebo group (table). Resolution of metabolic syndrome was greater in the ILS group than in the placebo group (38% vs 18%, p = 0.002; metformin and placebo groups did not differ for resolution (23% vs 18%, p = 0.05).

**CONCLUSIONS**

In persons with impaired glucose tolerance, an intensive lifestyle intervention or treatment with metformin plus standard lifestyle recommendations was more effective than standard lifestyle recommendations alone for preventing or delaying onset of metabolic syndrome.

Abstract and commentary also appear in ACP Journal Club.

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**Intensive lifestyle intervention (ILS) or metformin plus standard lifestyle vs placebo plus standard lifestyle for prevention of metabolic syndrome**

<table>
<thead>
<tr>
<th>Outcome at mean 3.2 years</th>
<th>Comparisons</th>
<th>Cumulative incidence</th>
<th>RHR (95% CI)</th>
<th>NNT (CI)†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence of metabolic syndrome</td>
<td>ILS vs placebo</td>
<td>38% vs 61%</td>
<td>41% (28 to 52)</td>
<td>4 (3 to 7)</td>
</tr>
<tr>
<td></td>
<td>Metformin vs placebo</td>
<td>50% vs 61%</td>
<td>17% (0 to 31)</td>
<td>9 (5 to 41)</td>
</tr>
</tbody>
</table>

*RHR = relative hazard reduction. Other abbreviations defined in glossary. †NNTs provided by author.