Safety of long-acting β2-agonists in asthma

In their review on the safety of long-acting β2-agonists in asthma, Rodrigo et al report that severe asthma-related complications were more frequent in patients receiving...
formoterol 24 μg twice daily (0.9%) than in those receiving formoterol 12 μg twice daily (0.4%) or placebo (0.2%) in a multicentre randomised trial. The original study reports different percentages of asthma-related complications in the treatment groups (table 1), and both serious asthma exacerbations and a combined outcome including serious asthma exacerbations, asthma-related discontinuations and emergency visits for asthma did not show statistically significant differences between the treatment groups.

Consequently, the statement by Rodrigo et al that higher doses of formoterol are associated with an increase in serious asthma exacerbations is disputable. Concerns about the safety of long-acting β2-agonists therapy are a matter of ongoing discussion, and a recently promoted FDA study may hopefully clarify the risk associated with the regular use of long-acting β2-agonists for the treatment of asthma.

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REFERENCES

Table 1 Respiratory-related severe asthma exacerbations (requiring hospitalisation)

<table>
<thead>
<tr>
<th>Treatments</th>
<th>No.</th>
<th>No.</th>
<th>%</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formoterol, 24 μg twice daily</td>
<td>527</td>
<td>2</td>
<td>0.4</td>
<td>0 to 0.9</td>
</tr>
<tr>
<td>Formoterol, 12 μg twice daily plus on demand</td>
<td>517</td>
<td>1</td>
<td>0.2</td>
<td>0 to 0.6</td>
</tr>
<tr>
<td>Formoterol, 12 μg twice daily</td>
<td>527</td>
<td>5*</td>
<td>0.9</td>
<td>0.1 to 1.8</td>
</tr>
<tr>
<td>Placebo</td>
<td>514</td>
<td>1</td>
<td>0.2</td>
<td>0 to 0.6</td>
</tr>
<tr>
<td>Formoterol combined (three groups)</td>
<td>1571</td>
<td>8</td>
<td>0.5</td>
<td>0.2 to 0.9</td>
</tr>
</tbody>
</table>

*Two patients had respiratory events that were not asthma related.
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