**Review: several drugs, especially triptans, are effective for pain relief in acute migraine**


**QUESTION:** In patients with acute migraine, are pharmacological treatments better than placebo for short and long term pain relief?

**Data sources**

Studies in any language were identified by searching Medline (1966–2000), EMBASE/Excerpta Medica (1980–2000), the Cochrane Library, and the Oxford Pain Relief Database. Pfizer Inc. was contacted for data on all randomised controlled trials (RCTs) of eletriptan.

**Outcomes**

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Treatment</th>
<th>Placebo</th>
<th>RRI</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache relief at 2 h</td>
<td>34% to 79%</td>
<td>22% to 35%</td>
<td>150% to 280%</td>
<td>2 to 6</td>
</tr>
<tr>
<td>Headache relief at 1 h</td>
<td>14% to 70%</td>
<td>8.9% to 26%</td>
<td>110% to 320%</td>
<td>3 to 11</td>
</tr>
<tr>
<td>Pain free at 2 h</td>
<td>11% to 60%</td>
<td>4.7% to 12%</td>
<td>240% to 640%</td>
<td>3 to 9</td>
</tr>
<tr>
<td>Sustained relief at 24 h</td>
<td>35% to 53%</td>
<td>14% to 27%</td>
<td>150% to 300%</td>
<td>4 to 9</td>
</tr>
</tbody>
</table>

*Abbreviations defined in glossary.

**Commentary**

Which of the many drugs available for treatment of acute migraine should a busy clinician use? In the absence of a large, government-funded, super trial comparing all currently available treatments, we must synthesise information from other sources to assess their relative merits. The conclusions of the systematic review by Oldman et al are broadly consistent with head to head trial results, clinical experience, and the results of another systematic review. Firstly, triptans as a class outperform such non-specific medications as non-steroidal anti-inflammatory drugs; secondly, subcutaneous sumatriptan is the most effective treatment for acute migraine; and thirdly, with the important exception of naratriptan, which is less effective than the others, available oral triptans have similar efficacy. Rank orderings of these drugs based on the number needed to treat or other derived variables have limited clinical relevance because differences are small and confidence intervals overlap. Comparative inferences are also limited because the data do not represent head to head RCTs and placebo responses vary between trials, indicating differences in study populations.

Through no fault of its authors, this review provides no information about several important issues in abortive treatment of migraine. No trials of such treatments as naloxone, barbiturate-containing compounds (eg, Fiorinal [butalbital, aspirin, and caffeine], Novartis) that are commonly prescribed in the United States or 2 other triptans (almotriptan and frovatriptan) that are available. Trial results suggest that frovatriptan, like naratriptan, is substantially less effective than other triptans at the 2-hour efficacy end points recommended by the International Headache Society. Finally, the poor quality of adverse event reporting in clinical trials, as commented upon by the authors, is disappointing. Patients and physicians commonly base treatment decisions on a combined assessment of efficacy and tolerability, and the information needed to put this element of decision-making in perspective is lacking.

Elizabeth Loder, MD
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