Lidocaine Ear Drops Help Quell Pain of AOM

The majority of patients in both groups also had taken oral analgesics, but ear drops still had an effect.

BY JOHN R. BELL  
Associate Editor

Lidocaine drops for analgesia in children and teens with acute otitis media provided better pain relief than did a placebo for most patients, according to results of the first published trial.

Dr. Penny Bolt and her colleagues at the University of Melbourne’s emergency department (ED) conducted a randomized, double-blind trial of patients with acute otitis media with no evidence of perforation.

The authors randomly assigned 31 patients to aqueous lidocaine 2% and 32 to a saline placebo.

All participants were offered a 15 mg/kg dose of acetaminophen if they had not taken an oral analgesic 4 hours before presenting to the ED.

In the ED, significantly more patients said their pain had been reduced by at least 50% at 10 minutes post treatment in the lidocaine group than in the placebo group.

Each patient’s pain was assessed at baseline and at 10, 20, and 30 minutes, using a face pain scale for patients younger than 7 years and the visual analog scale for those aged 7-17 years.

The mean patient age in each group was approximately 6 years (range from 3 to 17 years). Patients were followed up at 1 day and 1 week post treatment and were given ear drops to use at home if needed (Arch. Dis. Child 2006;91;40-4 [doi: 10.1136/adc.2006.110429]).

In the ED, significantly more patients reported that their pain had been reduced by at least 50% at 10 minutes post treatment in the lidocaine group than in the placebo group (52% and 25%, respectively; relative risk 2.06).

The same was true at 30 minutes post treatment (90% vs. 63%; RR 2.04); the difference at 20 minutes was not statistically significant. The same trend was seen in the portion of patients in each group who reported a 25% pain reduction, with a significant relative risk in favor of lidocaine at all three time points.

There were no adverse events during the study period in the ED and no serious side effects within 1 week of treatment.

Five patients reported ear discharge 1-3 days post treatment, resolving within 1 week: two (7%) were in the lidocaine group and three (10%) in the placebo group.

Dr. Bolt and her colleagues noted that they did not control for concurrent analgesic use before baseline, but the portion of patients who had taken such medication was similar in the lidocaine and placebo groups (77% and 75%). They acknowledged that oral analgesia was a “likely contributor” to the pain relief in the study population.

The investigators noted that previous studies have shown that aqueous lidocaine does not penetrate noninflamed squamous epithelium, including that of the external tympanic membrane.

Greater drug uptake via inflamed epithelium, such as that concomitant with otitis media, may explain why the treatment was effective in these patients.

The use of lidocaine drops for acute otitis media is recommended in the clinical practice guidelines of the authors’ institution, they said.

Dr. Bolt and her associates reported no conflicts of interest.

<table>
<thead>
<tr>
<th>Children Reporting At Least A 50% Reduction in Pain</th>
<th>Aqueous Lidocaine (n = 31)</th>
<th>Saline Placebo (n = 32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 minutes</td>
<td>52%</td>
<td>25%</td>
</tr>
<tr>
<td>30 minutes</td>
<td>90%</td>
<td>63%</td>
</tr>
</tbody>
</table>

Note: Based on a study of children aged 3-17 years with acute otitis media.

Source: Archives of Disease in Childhood

From the makers of TRIPLE PASTE®

PREMIUM TRIPLECREAM® severe dry skin/eczema care

HEALING - premium, elegant formula based on Triple Paste® technology

SOOTHING - for the worst cases of dry skin associated with eczema

MOISTURIZING - rich and long lasting for the highest standard of care

Available at Target, CVS, Babies “r” Us and other fine retailers

Available in 3.5 oz. tube, 4 oz. & 8 oz. jars.

For samples Call 1-800-533-SKIN or e-mail info@sumlab.com