TITLE: Optimal Pharmaceutical Pain Management Following Tonsillectomy or Adenoidectomy for Pediatric Patients: Clinical Evidence and Guidelines

DATE: 06 December 2012

RESEARCH QUESTIONS

1. What is the clinical evidence regarding optimal pharmaceutical pain management options for pediatric patients following tonsillectomy, adenoidectomy, or both?

2. What are the evidence-based guidelines regarding pain management for pediatric patients following tonsillectomy, adenoidectomy, or both?

KEY MESSAGE

Two systematic reviews, five randomized controlled trials, and two evidence-based guidelines were identified regarding optimal pharmaceutical pain management options for pediatric patients following tonsillectomy, adenoidectomy, or both.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2012, Issue 11), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2002 and November 22, 2012. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.
RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials and evidence-based guidelines.

Two systematic reviews, five randomized controlled trials, and two evidence-based guidelines were identified regarding optimal pharmaceutical pain management options for pediatric patients following tonsillectomy, adenoidectomy, or both. Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

A variety of pharmaceutical pain management options were examined in the included literature. None of the studies identified in this report\textsuperscript{1-9} identified an optimal pain management option for pediatric patients following tonsillectomy, adenoidectomy, or adenotonsillectomy. The conclusions of the identified studies are summarized in Table 1.

<table>
<thead>
<tr>
<th>Table 1: Summary of Included Studies</th>
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<tbody>
<tr>
<td><strong>Author, Year</strong></td>
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<tr>
<td>Systematic Reviews</td>
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<td>Randomized Controlled Trials</td>
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Table 1: Summary of Included Studies

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<tr>
<th>Author, Year</th>
<th>Type of Analgesic and Procedure</th>
<th>Conclusions</th>
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<tr>
<td>Bean-Lijewski et al. (2007)</td>
<td>Rofecoxib or hydrocodone with acetaminophen Tonsillectomy</td>
<td>Active pain scores were significantly reduced for patients taking rofecoxib versus the hydrocodone mixture after surgery. The authors also presented a review of analgesic strategies.</td>
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<td>Chacra et al. (2005)</td>
<td>Hydrogen peroxide mouth rinse Tonsillectomy</td>
<td>Patients were randomized to peroxide rinse or water rinse for 14 days. The authors determined there was no significant improvement in pain relief for patients using the peroxide rinse compared to the group using water.</td>
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<tr>
<td>Ozalevli et al. (2005)</td>
<td>Morphine or tramadol Tonsillectomy</td>
<td>Patients received PCA with either tramadol or morphine. Pain scores were significantly reduced in both groups but were lower in the morphine group.</td>
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<tr>
<td>Akbas et al. (2004)</td>
<td>Fusafungine spray Tonsillectomy</td>
<td>Patients were randomized to receive an antibiotic or fusafungine plus an analgesic or fusafungine alone. No significant differences in pain were observed until the 10th day after surgery. The fusafungine groups had lower pain scores and improved healing.</td>
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NSAID = non-steroidal anti-inflammatory drug; PCA = patient-controlled analgesia

Two evidence-based guidelines\textsuperscript{8,9} regarding the post-tonsillectomy care of children were identified. The first guideline\textsuperscript{8} suggests advocating for pain management after surgery and that caregivers should be educated regarding the importance of managing and reassessing pain levels once at home. The second guideline\textsuperscript{9} recommends that parents and patients be informed that pain may increase up to the sixth postoperative day. It is also recommended that patients be provided with a week’s worth of analgesic and safety and dosage information for the analgesic provided. No recommendations are made in either guideline regarding specific drugs for managing post-tonsillectomy pain.
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses


Randomized Controlled Trials


Guidelines and Recommendations

PubMed: PM21493257


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APPENDIX – FURTHER INFORMATION:

Non-Randomized Studies


Randomized Controlled Trials

Patient population unclear


Non-pharmaceutical interventions


Parental education and at-home pain management


Review Articles


Additional References
