

Endodontic Spotlight

Steven C. Kwan, D.D.S., M.S.D.

Autumn 2013



Introduction

In our fourth and final publication for 2013 we have two very interesting recently published articles. The first is a review article from JADA that looks at the efficacy of combining ibuprofen and acetaminophen for the management of postoperative pain. I would definitely consider using this strategy to help manage pain in my patients. The second paper shows the significant impact that untreated dental disease has on hospitals and society. The findings would be a great thing to communicate when discussing the importance of dental care.

Moore PA, Hersh EV. Combining ibuprofen and acetaminophen for acute pain management after third-molar extractions. J Amer Dent Assoc 2013;144:898-908.

This review article evaluated the combination of ibuprofen and acetaminophen (N-acetyl-p-aminophenol, APAP) for the management of postoperative pain. After reviewing the pharmacological background of these medications and discussing safety and medical concerns, the authors looked at papers that studied analgesic efficacy and safety of combining these drugs in a third molar extraction model. They found that this combination can be more effective with fewer side effects than many of the opioid combination medications. As expected the combination of ibuprofen and APAP provide greater pain relief than either alone. While they note that this combination might not be as effective for endodontic pain and that more research is necessary for these other procedures, this review shows that this combination should be considered for management of dental pain. The authors end the article with stepwise guidelines for the management of acute postoperative pain in medically healthy patients. For mild pain, a low dose of ibuprofen as needed for pain is recommended (ibuprofen 200-400 mg, q4-6h prn pain). For mild to moderate pain, they recommend increasing the dose of ibuprofen and taking by the clock for the first day (ibuprofen 400-600 mg, q6h for 24 hours; then ibuprofen 400 mg, q4-6h prn pain). With moderate to severe pain, they add APAP to use the combination therapy discussed in the article (ibuprofen 400-600 mg and APAP 500 mg, q6h for 24 hours; then ibuprofen 400 mg and APAP 500 mg, q6h prn pain). Only if the patient reports severe pain do they add a narcotic (ibuprofen 400-600 mg and APAP 650 mg and hydrocodone 10 mg, q6h for 24 to 48 hours, then ibuprofen 400-600 mg and APAP 500 mg, q6h prn pain). Please take a look at the full article for details and additional considerations before using this strategy on your patients. *SUMMARY: The combination of ibuprofen and APAP can be very effective and should be considered for the management of postoperative pain.*

Shah AC, Leong KK, Lee MK, Allareddy V. Outcomes of hospitalizations attributed to periapical abscess from 2000 to 2008: A longitudinal trend analysis. J Endod 2013;39:1104-10.

This retrospective study analyzed hospitalizations due to periapical abscesses. Using a nine year period from 2000-2008 from the Nationwide Inpatient Sample, the authors selected cases with a primary diagnosis of periapical abscess (either with or without sinus involvement). They found a periapical abscesses resulted in 61,439 hospitalizations. Each event lasted an average duration of

2.96 days, for a total of 181,967 days over the nine year period. The average charge per visit was \$14,245, for total hospital charges of \$858.9 million, which does account indirect costs such as medications, postoperative outpatient care, or lost time from work or school. A total of 66 of these patients died in the hospital from the periapical abscess. Significantly, the authors also noted a trend of increasing usage during the study period. From 2000 to 2008, there was a 41.4% increase in hospitalizations, and a 35.9% increase in charges. This increase is far above the 5.4% increase for all hospitalizations (not just for periapical abscesses) over the study period, demonstrating that dental emergencies are accounting for a great usage of hospital resources. This study shows the dramatic impact that untreated dental needs has on society, and reemphasizes the importance of communicating the importance of dental care to the general public and politicians. *SUMMARY: From 2000-2008, periapical abscesses caused 61,439 hospitalization, costing over \$850 million, and resulted in 66 deaths.*

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Endodontic Spotlight is published quarterly by Steven C. Kwan, D.D.S., M.S.D.

Dr. Kwan practices at 6715 Fort Dent Way, Tukwila WA 98188

206-248-3330; 206-431-1158 (fax); www.seattle-endodontics.com

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