

Endodontic Spotlight

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Introduction

Recently one of our colleagues had some questions about our postoperative pain management strategies. This is a great topic and a great idea for this article, so we're going to review some abstracts we highlighted previously. First we have an overview of my strategies on managing postoperative pain, and then we have a review article from JADA that shows the effectiveness of combination ibuprofen and acetaminophen therapy.

Spotlight on Postoperative Pain Management

Ibuprofen has been shown in high level systematic reviews to be a very effective and safe analgesic for postoperative pain and is my first choice medication for pain management. I advise my patients to take 600 mg four times a day as needed for pain. I will give them the option of going up to 800 mg, but emphasize to them that that is the maximum safe dose and 600 mg is usually effective for most people. If I expect significant postoperative pain, I will consider having them take the ibuprofen by the clock for at least three days after the procedure. I have found that most patients who call asking for another prescription because "the ibuprofen is not working," usually are taking too low of a dose.

If the pain is more severe than can be managed with ibuprofen alone, I will use a combination therapy by adding acetaminophen and/or a narcotic such as hydrocodone or oxycodone. Typically whenever I work on a patient I will give them a prescription of hydrocodone 7.5 mg / acetaminophen 325 mg (Vicodin) with the instructions to use ibuprofen first but add this prescription if necessary. This three drug combination is usually adequate for managing pain in most patients. Other options include adding just acetaminophen, just oxycodone, or oxycodone 5 mg / acetaminophen 325 mg (Percocet), depending on the specific medical history.

A couple of non-pharmacologic strategies that we also recommend include having the patient applying ice on the outside of their face and holding warm water in the mouth right next to the tooth or swelling. However, do NOT have the patient apply heat to the outside of their face, as that may increase the swelling. Although these recommendations are not evidenced based, we have found these to be effective strategies for most people.

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.*

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