

Harnessing Placebo Analgesia: Another Avenue to Opioid Reduction in Oral Surgery



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Although encouraging early signs suggest the US opioid epidemic might have peaked, our eyes have been opened to the tremendous risks of the subsequent abuse and addiction for young patients exposed to opioids. Thus, avoiding the use of opioids is especially important for the typical high school- or college-age patient undergoing third molar removal. The 2017 American Association of Oral and Maxillofacial Surgeons White Paper on opioid prescribing and pain management encouraged a multimodal approach to pain management, recommending nonsteroidal anti-inflammatory drugs (NSAIDs) for first-line analgesic therapy. In early 2019, the *Journal of Oral and Maxillofacial Surgery* described numerous adjuncts for treating postoperative third molar pain, with the goal of reducing the need for opioids, including a homeopathic recovery kit, intrasocket bupivacaine, pre-emptive intravenous ibuprofen or acetaminophen, oral bromelain, and submucosal tramadol.

Placebo analgesia is another adjunct to consider. I have had anecdotal success and gratifying feedback since consciously adding elements of the placebo effect to a structured pain management process—and all but eliminating opioids—for my third molar patients starting in early 2018. What has become almost opioid-free treatment of postoperative pain in my office has been met, not with complaints or pushback from patients, but with agreement and appreciation. For well over 20 years, my opioid prescriptions have been few and far between; placebo analgesia has reduced them even more. I rarely see an indication for opioids, and patients do not want them when aware of their risks and the more effective alternatives.

The placebo effect is a “learning phenomenon wherein a human being learns to produce a benefit via verbally-induced expectations, cued and contex-

tual conditioning or social learning.”¹ Placebo analgesia occurs when verbally induced expectations and conditioning result in reductions in pain perception that exceed the purely pharmacological effect of an analgesic medication.¹ Pain is the most placebo-prone condition known; thus, why not take advantage of the placebo effect to benefit patients? The results of open-label placebo studies have indicated that deception is not a critical component of successful placebo analgesia,² which can allay perceived ethical concerns about implementing it. It costs more than 2 billion dollars to develop a new drug. However, many never make it to market only because they cannot beat the strength of the placebo effect in final human clinical testing.³ Everyone responds to placebo—some more so than others—and it can be put to work to improve pain management outcomes beyond the chemistry of pain pills.

Placebo is about theater, storytelling, and expectation. One must first instill an expectation and acceptance of a certain level of pain and then work to develop a strong expectation of successful pain management.^{1,3,4} The effectiveness of the theater and storytelling used to enhance the placebo effect has been well-accepted, and the trappings, costumes, and rituals of medical professionals can add effectiveness to treatment.³ Rather than dismiss the placebo effect as smoke and mirrors—effective only for the weak-minded and gullible—we can embrace and harness placebo analgesia to help our patients maximize safe pain relief beyond the pharmacology of pain pills.^{1,3,4} A prescriber’s firm belief in the superiority of NSAIDs is necessary for effective placebo analgesia.⁴ Providers have been conditioned otherwise—notably by Big Pharma—in recent decades, with unsubstantiated claims that opioids

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have negligible addictive potential and will always be superior for controlling pain. Such preconceptions can interfere with successful placebo analgesia.

Placebo analgesia uses a story—a true one backed by science, but a story nonetheless. Patients must be motivated to believe this story; motivation that comes largely from their strong desire to minimize postoperative pain. Placebo (Latin for “I will please you”) enhances outcomes when the story is presented effectively, adding to the “good white coat syndrome”—patients strive to please the authority figure of their doctor. We can add 10, 20, or 30% to the effectiveness of just about any treatment, with no side effects, by giving an extra 10 minutes of our time, a gentle hand on the shoulder, an honest explanation of the circumstances and how they will be managed.³ For those minimally responsive, the documented superiority of NSAIDs remains, leaving no downside—other than a little extra time—of adding placebo to the pain management mix.

Implementing placebo analgesia in the predictable and controlled setting that usually precedes office removal of third molars in the adolescent and young adult is especially valuable. It starts with a conditioning or priming session before surgery for the patient with 1 or both parents to set up expectations and strategies.^{1,3,4} An upfront expectation of pain for a few days is presented—which surprises no one—along with the reassurance that every effort will be made to help manage pain. A preoperative oral dose of ibuprofen is given, by the surgeon, with a short explanation in lay terms of the physiology of inflammation and why NSAIDs work so well to reduce dental pain. Quiet relaxation and self-distraction such as meditation, yoga, and mindfulness⁵ are mentioned, and those familiar with them will appreciate the reminder. Binge-watching Netflix and playing video games are also suggested, and most look forward to following these doctor’s orders. The importance of developing a strong hope, expectation, and determination of successful pain management is stressed; giving a brief, general description of the neurochemical pain relievers released by the brain when it expects a good outcome.¹ Hearing of the good outcomes experienced by most people provides the peer pressure—or herd mentality—element of the placebo effect.^{3,4} When the brain is given a set of known data points it accepts as true, it connects the dots to fall in line with what it thinks others do. The mind is a tremendous prediction machine. We can help our patients predict and achieve successful pain management by working together to build positive predictions.^{1,3,4}

A backup prescription for an NSAID (e.g., flurbiprofen, naproxen, diflunisal) can benefit the patient who responds well to and needs the props and surroundings of a pharmacy, including driving to the pharmacy, presenting the prescription, waiting until called when it is ready, receiving a bottle with a personalized, printed label, and customized instructions. This patient will still be taking an NSAID; with the added placebo analgesia from the theater of a pharmacy.³ Having a backup NSAID prescription in hand, even if it is not filled, can increase the effectiveness of an ibuprofen-acetaminophen combination.

In the 18 months since I added intentional placebo analgesia to pain management efforts in my surgical practice, I have had almost no requests—at the time of surgery or in the following days or weeks—for an opioid prescription. My policy is not rigidly opioid-free but heavily opioid-sparing for everyone; especially so for those younger than 30 years old. Conditioning for placebo analgesia and summarizing recent data about the risks of opioids adds a little time and required a minor schedule adjustment for patient encounters. The benefit has become the clear highlight of most days: sincere gratitude, especially from parents, for my opioid-free philosophy. Patients of all ages have become increasingly wary of opioid use and eager to exclude them. A myriad of reasons has relegated opioids to a vastly more limited scope than was the norm in recent decades. We have the opportunity to make a personal impact on the opioid epidemic with evidence-based and common-sense decisions that result in better pain management, fewer opioid prescriptions, and less risk to our patients.

Acknowledgments

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