

Pain Management in Dermatology

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Avoiding the “ouch” without opiates: options to try

Physicians everywhere are working toward reducing opioid prescribing to help curb the risk of prescription opioid misuse or the triggering of an opioid use disorder. Skin procedures can be painful and dermatologists at times have relied on prescription opioids to help. What alternatives can we look to for effective procedural pain management?

Preventive analgesia

Vibratory devices are popular adjuncts to use during injections and phlebotomy. In theory, the vibrations activate large nerve fibers ($A\beta$) so that the smaller nerve fibers ($A\delta$) carrying the sensation of the pinprick of the needle get trafficked less to the brain. The device can be placed nearby an injection site and set to vibrate before and after the procedure. Some vibratory devices can also attach to cold packs.

Cold analgesia may be helpful in using the temperature sensation to override the pain transmission along the same nerve fibers. Ice or cold packs have for a longtime been a pain relief mainstay. Topical skin refrigerants are over the counter cold sprays for pain relief during injections. It takes some practice to spray it uniformly and just the right amount. Ideally, a little spritz helps to relieve pain without overly hardening the skin or freezing the liquid in the needle and delaying the delivery of the injection.

At the University of Iowa, vibratory devices and cold analgesia are popular adjuncts for pain management in dermatology. They are especially useful during injections to treat palmar, plantar, or axillary hyperhidrosis, especially for younger people. Because the skin refrigerant spray is an aerosol used in close proximity to the injector, masks are useful to protect the injector from bystander inhalation.



Skin Refrigerant



“Buzzy” Vibratory Device

Combination therapies

Acetaminophen and non-steroidal anti-inflammatory medications (NSAIDs) alone are typically used for skin procedures. They are considered first line for pain management. Contrary to past dogma, many NSAIDs are now considered unlikely to increase bleeding risk in wounds. NSAID use is limited when contraindicated such as with advanced renal disease or allergy or drug interactions. Many studies have suggested that acetaminophen and NSAIDs used in combination are more effective than either medication alone and can limit opioid requirements.

Opioids are 2nd line for pain management. They act on receptors in the nervous system to reduce pain signaling and sensation. In addition to the common adverse effects like nausea, vomiting, or constipation, there are many potential drug interactions. Opioids have a few more concerns. They can induce “paradoxical hyperalgesia” or increased pain sensitivity that can be long lasting problems for some people. Only a small exposure – one week! – can result in opioid dependence and symptoms of withdrawal.

My clinical practice includes a large quantity of skin cancer surgery and laser procedures. The “go to” for postoperative skin cancer pain is combination acetaminophen and NSAIDs (as indicated) along with cold analgesia. The same regimen is recommended by all of our University of Iowa Mohs surgeons even after extensive reconstruction. I most often prescribe opioids for acute pain after fairly aggressive fractional ablative carbon dioxide full face laser resurfacing. In an unpublished comparison, pain scores immediately and 1 day after laser resurfacing are similar using acetaminophen/hydrocodone versus ketorolac for a series of about 20 patients in my practice. Ketorolac’s first dose is intramuscular, however, and this can be a barrier to its use. Some patients with NSAIDs already on board for arthritis pain have tolerated laser resurfacing very well. I am seeking even more alternatives to opioids for management of post-laser pain in order to phase out opioid prescribing altogether.

References:

[Meeks NM](#)¹, [Glass JS](#)², [Carroll BT](#)³. Acute pain management in dermatology: mechanisms and pathways. [J Am Acad Dermatol](#). 2015 Oct;73(4):533-40
PMID: 26369838 DOI: <http://dx.doi.org/10.1016/j.jaad.2015.03.061>

[Glass JS](#)¹, [Hardy CL](#)², [Meeks NM](#)³, [Carroll BT](#)⁴. Acute pain management in dermatology: risk assessment and treatment. [J Am Acad Dermatol](#). 2015 Oct;73(4):543-60 PMID: 26369839 DOI: [10.1016/j.jaad.2015.04.050](http://dx.doi.org/10.1016/j.jaad.2015.04.050)