

Photomedicine, Not Opioids, for Chronic Pain

Narda G. Robinson, DO, DVM, MS, FAAMA

MODERN MEDICINE, LIKE millions of people across the planet, herself appears to have an addiction to narcotics, or more specifically, to the *prescribing* of these opioid-based medications. Dispensing highly addictive medications in lieu of referring for physical medicine and photomedicine has contributed to a “serious global problem that affects the health, social, and economic welfare of all societies.”¹

Physicians and other opioid prescribers had help in producing this worldwide epidemic, namely, the aggressive marketing measures of drug companies that produce them. The problem began in the 1990s when Purdue Pharma launched their new drug OxyContin with the promise of “smooth and sustained pain control all day and all night.” America’s soon-to-become best-selling painkiller brought Purdue Pharma more than \$30 billion in revenue. OxyContin’s dark side only recently came to light, showing how the prescribing practices promoted by Purdue Pharma embodied the “perfect recipe for addiction” through stronger doses formerly reserved for cancer pain.²

As a result of drug company pressure and, in part, physician complicity, “[T]he total number of opioid pain relievers prescribed in the United States has skyrocketed in the past 25 years. The number of opioids (like hydrocodone and oxycodone products) have (*sic*) escalated from around 76 million in 1991 to nearly 207 million in 2013, with the United States their biggest consumer globally, accounting for almost 100 percent of the world total for hydrocodone (e.g., Vicodin) and 81 percent for oxycodone (e.g., Percocet).” Deaths from overdose of prescription opioid analgesics have more than tripled in the past two decades, and outpaced deaths from heroin or cocaine since 2002. Projections indicate that the problem is only going to increase and the toll it exacts more deadly.³

One could argue that opioid prescribers were merely doing their job, having been convinced by pharmaceutical manufacturers that proactive opioid-based pain relief constituted “good medicine.” “In the 1990’s, doctors were admonished for undertreating pain. Opioids, they were told, including newer ones like OxyContin, could be safely prescribed and bring life-changing relief. Now the pendulum has swung sharply back and doctors have been scrambling for alternatives.”⁴

Fortunately, several effective, safe, and nonaddicting alternatives to opioids already exist, and their widespread availability need not require physicians to “scramble” to

access them. Further, several modalities afford more complete and acceptable pain relief than do opioids, and non-pharmacological alternatives may reduce or obviate reliance on medications altogether. Examples of techniques that impart clinically meaningful pain relief without medication include photomedicine, acupuncture, and dry needling, music therapy, and some forms of mind–body medicine.

Addictions, however, are hard to break and the first step in any good addiction treatment is admitting that there is, indeed, a problem. Not all physicians are ready to embrace nonopioid-based analgesia as first-line approaches. For example, the American College of Emergency Physicians website illustrates what appears to be representative of this resistance to change. It states, “Many patients seeking care in the emergency department (ED) present with severe pain, which may be due to an acute or chronic condition. A primary goal of emergency care is to alleviate pain quickly, safely, effectively, and compassionately. Opioid medications remain the mainstay for treatment of severe pain.”⁵

For prescribing patterns to change, a culture shift must take place. At least one academic tertiary care medical center with one of the country’s busiest EDs rose to the challenge and has “kicked the habit” of resorting immediately to opioids for pain. Doctors and nurses at the center are learning new treatment protocols designed to “shake loose” their “long-standing conviction that opioids are the fastest, most surefire response to pain, an attitude held tightly not only by emergency department personnel, but by patients, too.”

In addition, in 2016, the Centers for Disease Control and Prevention published a special report called, “CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016.” The guidelines state this: “Of primary importance, nonopioid therapy is preferred for treatment of chronic pain.”

Finally, more are realizing that a variety of non-pharmacological therapies can serve as effective, scientifically based, evidence-supported opioid substitutes. Some approaches are superior to opioids not only in their ability to alleviate pain and dysfunction but also in their capacity to treat the disease itself, whether through circulatory support, tissue repair, anti-inflammatory effects, or neuromodulation. This benefits the patient, reduces the burden of disease, and promotes healing instead of dependency.

Acupuncture appears regularly in the lists of non-pharmacologic options. Randomized controlled trials demonstrate the effectiveness of acupuncture for various pain

problems, including neck pain, back pain, osteoarthritis, and headache. In emergency settings, acupuncture has been recognized as effective for musculoskeletal pain, low back pain, appendicitis pain, renal colic, and sickle cell vaso-occlusive events. Recent research reveals that patients in emergency settings who received acupuncture provided in conjunction with standard medical care found the treatment “acceptable and effective” for both pain and anxiety. The authors of this study wrote, “Given the rapid increase in opioid prescriptions for pain and the corresponding increased risk of opioid abuse—as well as the risk of adverse effects—it seems evident that the existing treatments for acute pain do not address the problem fully. Low-risk, effective approaches to relieve acute pain in the ED are needed to assist U.S. health systems with mitigating this epidemic. Acupuncture has the potential to be a tool for hospitals to address pain in addition to the medication based care already being delivered.”

However, in contrast to acupuncture, photomedicine rarely receives mention as an opioid alternative. Although many who practice photomedicine in clinical settings know that light therapy can provide rapid, safe, and noninvasive analgesia, most medical practitioners remain unaware and/or unconvinced of its value. They live in the dark, not realizing that photomedicine effectively treats a variety of nociceptive and neuropathic pain problems from head to toe, all with a notably low risk profile.

Whereas opioids lead to addiction, photomedicine leads to healing. Photobiomodulation repairs tissue, relaxes muscles, reduces inflammation and edema, and restores circulation as well as nerve function to more normal levels. No opioid can match the reparative value of light. It is time for photomedicine practitioners to educate the public and the medical profession about this valuable, cost-effective, and

well-received treatment option. You can bet the drug companies will not.

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Address correspondence to:

*Narda Robinson
CuraCore Integrative Medicine &
Education Center
905 South Summit View Drive
Fort Collins, CO 80524*

E-mail: Narda@CuraCore.org