PAIN MEDICINE NEWS

Stop Making Surgeons Undertreat Postoperative Pain

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Indisputable evidence shows the absence of a correlation between the number of opioid prescriptions and opioid abuse or addiction. This has not, however, dissuaded practicing physicians from buying in to the false narrative that prescribing opioids for pain is fueling the overdose crisis.

According to statistics from the CDC, the number of all opioid prescriptions dropped roughly 42% from 2012 to 2019, a year when overdose deaths hit a new peak of 71,327. The top four implicated drugs—illicit fentanyl and its analog, heroin, cocaine and methamphetamine—were involved in far more deaths than any prescription opioid. Yet surgeons are repeatedly encouraged to use IV acetaminophen—which is simply Tylenol (Johnson & Johnson)—to treat postoperative pain in order to spare their patients the risk for addiction.

The literature is jam-packed with studies about the effect, or lack thereof, of IV acetaminophen in controlling pain from a variety of surgical procedures. But virtually all of these are retrospective studies, which are inferior to controlled prospective studies with predetermined end points and a control group (usually placebo). Now there's a randomized, double-blind, placebo-controlled trial—the gold standard of clinical trials—and if this doesn't disabuse doctors from prescribing acetaminophen for postoperative pain, nothing will. Lead author Alparslan Turan, MD, and colleagues published the results in *JAMA* last July (2020;324[4]:350-358).

The Cleveland Clinic group enrolled 580 participants, all of whom were scheduled for abdominal surgery. Half of the participants received 1 g of IV acetaminophen; the rest got a saline placebo. Doses of each were given every six hours for up to 48 hours (the dosing arm was less than 48 hours when the patient was discharged before that time).

The primary outcome was the amount of time that the patients had a blood oxygen saturation level less than 90% (hypoxemia). This strikes us as strange. The reason that someone might get hypoxemia is opioid consumption. In other words, the primary outcome seems to be a surrogate marker for the real primary outcome—the amount of opioids consumed. It is the opioids that cause the hypoxemia, not the acetaminophen or saline. But the secondary outcomes included post-op opioid consumption as well as pain, nausea and vomiting, sedation and respiratory function. Nevertheless, the results were striking: The placebo group was hypoxemic for 0.7 minutes per hour. For the acetaminophen, that number was 1.1 minutes per hour, which is clinically and statistically insignificant. The groups had the same oxygen levels because they

consumed the same amount of an opioid. Why? Because the acetaminophen did nothing to reduce their pain.

During the 48 hours after surgery, the numerical pain scores were virtually identical: 4.2 for the acetaminophen group and 4.4 for the placebo group. Other secondary end points—postoperative nausea and vomiting, sedation and respiratory function—were identical between the two groups.

This trial was clean in the way it was designed, carried out, and the results measured and analyzed. At least for abdominal surgery, it is safe to say that IV acetaminophen is useless. It performed identically to placebo. Although it is possible that IV acetaminophen would be of any use in other types of operations, it is very unlikely.

Studies show the overdose potential of opioids, when used as directed in the medical setting, ranges from 0.022% to 0.04%. Multiple Cochrane systematic reviews point to extremely low addiction rates in chronic noncancer pain patients receiving long-term opioid therapy, and a recent report found a total "misuse" rate of 0.6% among more than 568,000 patients receiving opioids for acute postsurgical pain during an eight-year period (*BMJ* 2018;360:j5790).

Yet pain patients, acute or chronic, have been getting a drug that has no utility for pain from abdominal surgery and probably for any surgery. In the mad dash to get away from opioids, patients have become human guinea pigs for untested, unproven drugs. And it's not just acetaminophen. Other drugs, possibly just as useless, such as antidepressants (selective serotonin reuptake inhibitors and tricyclics) and gabapentin, all with limited evidence of efficacy, are being force-fed to pain patients in need of a real medicine simply to decrease opioid use just for the sake of doing so.

We don't favor overprescribing pain medications. We favor rationally prescribing pain medications. Surgeons and other health care practitioners should resist the recrudescent opiophobia, a throwback to the disinformation campaigns of the 1970s, that causes them to undermedicate and mismanage their patients' pain and subject them to other possible harms.

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