Thinking about multimodal pain control

WRITTEN BY DR. DUNCAN ROZARIO ON JUNE 5, 2019 FOR CANADIANHEALTHCARENETWORK.CA

“Dr. Rozario, I didn’t need a single tablet of narcotic after surgery” is a common refrain I hear when I do my postoperative day one virtual care visit with my surgical patients using the Reacts platform (an integrated, collaborative tool for healthcare professionals). When I started residency 25 years ago it was standard to prescribe patients 30 tablets of Tylenol#3 or an equivalent narcotic after surgery. Do most patients require that amount of narcotic after surgery? Are there better ways of managing postoperative pain? Surgeons account for 56% of new starts of opioids in Ontario on an annual basis. Could we be contributing to sub-optimal pain control, chronic pain, dependency, or diversion of narcotics?

To address that question, last year we asked an anesthetist from North York General Hospital, Dr. Sanjho Srikandarajah, to talk to us about his novel work on multimodal pain control. His presentation to us described how the combined use of acetaminophen and ibuprofen continuously after surgery was reducing their narcotic prescribing requirements. It has been demonstrated that the combination of acetaminophen and NSAIDs can reduce opioid usage by over 50%, and at times eliminate their need. It was time for us to change.

Our new approach

Patient education is a vital component of pain management and we developed a patient guide to pain management after surgery that outlines realistic expectations for pain control, our recommendations for pain management, our explanation of pre-emptive analgesia, use of multimodal post-operative pain control, and alternative supportive therapies.

Pre-emptive analgesia involves giving acetaminophen, an NSAID, and an appropriate dose of gabapentin, where medically indicated, before surgery, to block the transmission of pain.

Bupivacaine is a long-acting local anesthetic that can provide up to 15 hours of pain control after surgery. We inject an appropriate dose at the operative site.

Multimodal pain control after surgery involves giving a set regimen of three medications where appropriate: acetaminophen 1g po q6h X 48hrs, ibuprofen 400mg po q6h X 48 hrs, and hydromorphone 1-2mg po q6h PRN for 10 tabs (fill only if needed). The acetaminophen and ibuprofen are taken straight for 48 hours whether patients are having pain or not and are used as needed after that. Some of these medications may not be appropriate for all patients.

What has happened? We have gone from prescribing 30 tablets of morphine 5 mg equivalent to 10 tablets, and are asking patient to fill that only if needed. During my postoperative virtual visits, one of my routine questions is how many tablets of narcotics have you used? Eighty percent of my day surgery patients have used none, and less than 5% have required more than 10 tablets.

As we better understand how to optimally address issues of postoperative pain, it is becoming very clear that narcotics after surgery may not be the optimal way. A systems-based approach has provided us with excellent postoperative pain management using a significantly reduced dose of narcotic. Given the current opioid crisis we are seeing in North America, surgeons should not be contributing to issues of diversion, dependency, or inappropriate use and we need to learn from our colleagues in anesthesia the art and science of pain control.

Dr. Duncan Rozario is chief of surgery at Oakville Trafalgar Memorial Hospital in Ontario.

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