

Finding Suitable Alternatives to Opioids for Postoperative Pain Control

TO THE EDITOR:

We read the recent article, "β-blocker use is associated with a reduction in opioid use 30 days after total knee arthroplasty" written by Starr et al (1) with great interest. The authors concluded selective β-blockers were associated with reduced opioid use at 30 days postoperatively, and nonselective β-blockers were associated with reduced oral morphine equivalent usage through postoperative day 1. In a time where strong efforts are being made to curtail opioid consumption, research that focuses on finding suitable alternatives is extremely valuable and should be at the forefront.

A growing number of elderly patients are undergoing total knee arthroplasty (TKA), often bilaterally, and are at risk for development of debilitating postsurgical pain. Traditionally, these patients are prescribed opioids to be taken on an as-needed basis. Recently, a shift towards a multidisciplinary treatment strategy in the form of enhanced recovery after surgery protocols for orthopedic procedures have aimed to promote accelerated recovery and improved patient satisfaction, with emphasis on the use of nonopioid adjuncts (2). These adjuncts not only focus on improved intraoperative and postoperative analgesic control, but attempts are being made to treat patients prior to undergoing surgery, thus covering the entire perioperative period. The authors discussed it would be premature to recommend the routine administration of β-blockers as a nonopioid adjunct perioperatively citing the POISE trial as evidence. The POISE trial specifically evaluated the effect of treatment with the β-blocker metoprolol compared with placebo on major cardiovascular events in patients undergoing noncardiac surgery (3). The results showed a reduction in major cardiac events at 30 days when compared to placebo, but an increased risk of mortality and stroke. It is important to note that the POISE trial specifically examined high dose metoprolol succinate (3), and this study found reduced opioid use with various other β-blockers.

The possibility of preoperative initiation of β-blockers at a determined time prior to undergoing

TKA could be an area of interest. In our experience, β-blockers are generally tolerated with minimal side effects and the decision to initiate a presurgical regimen may be a worthwhile consideration if done in concert with the patients' primary care, pain physician, and if need be, cardiologist. The inclusion of β-blockers at this point should not be considered with other oral analgesics, such as acetaminophen and gabapentin, that are normally given immediately before proceeding to the operating room, or as a rescue analgesic during the recovery period. For those patients who are already taking β-blockers for other comorbid conditions including hypertension, coronary artery disease, or arrhythmias, among others, it may be prudent to attempt to increase the dose the patient is taking to the most allowable ceiling.

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