

Do Tramadol and a Steroid Dose Pack Provide Similar Pain Control as Oxycodone/Hydrocodone after Ankle Fracture Fixation?

Purpose:

Ankle surgeries have been found to be among the most painful orthopaedic surgeries, thus adequate pain control is imperative for optimal wound healing, reduction of hospital stay, and patient well-being. Recent studies have shown that administration of post operative corticosteroids in orthopaedic surgeries reduced postoperative pain, improved rehabilitation time, and reduced postoperative emesis. Therefore, it is imperative to research the use of postoperative steroids in ankle fracture fixation surgeries to reduce the usage of opioids and improve pain outcomes.

Methods: A retrospective review was performed to identify consecutive adult patients with operative ankle fractures undergoing outpatient surgery by one orthopaedic trauma surgeon before and after adoption of routine prescriptions of a schedule 4 pain medication (Tramadol) in addition to steroid dose packs and NSAIDs postoperatively. Prior to this practice change the surgeon only prescribed schedule 2 opioid pain medications (Oxycodone vs. Hydrocodone) in addition to NSAIDs. Patients undergoing open fixation of the posterior malleolus and patients who did not receive both Tramadol and a steroid dose pack after the protocol change were excluded. Patients treated with and without Tramadol and a steroid dose pack were compared to terms of demographics, regional/local anesthetic blocks, controlled pain medications type, NSAID type, number of pills of pain medications, need for refills, return to the emergency department for pain in the first two weeks, two-week clinical follow-up pain scores, and superficial/deep surgical site infections (SSIs).

Results: There were 19 patients identified in the Tramadol + steroid dose pack group and 60 patients in the control group who received a standard schedule 2 opioid medication (Oxycodone (n=32) and Hydrocodone (n=28)). The Tramadol/steroid group were more likely to also receive prescriptions for Tylenol and Ibuprofen postoperatively but did not have any differences in age, gender, BMI, ASA classification, tobacco use, diabetes, regional or local anesthetic blocks, or number of controlled pain medication pills prescribed postoperatively. In terms of outcomes there was no difference between groups in the need for controlled pain medication refills, return to the ED in the first two weeks for pain control, pain score at the 2-week follow-up appointment, or the rate of superficial or deep SSI.

Conclusions:

Results indicate that there were no differences in surgical outcomes between the Tramadol/steroid group and the Oxycodone/Hydrocodone group. It can be reasonably concluded that pain management of ankle fracture fixation surgery with Tramadol and steroids is effectively equivalent to usage of oxycodone and hydrocodone, thus should be adopted as the new standard of care to reduce opioid usage postoperatively.