

The Effect of Concomitant Use of Potent Anticoagulation and Anti-Inflammatories on Early Outcomes of Total Hip Arthroplasty

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INTRODUCTION: The use of non-steroidal anti-inflammatory drugs (NSAIDs) in patients receiving potent anticoagulation (AC) following total hip arthroplasty (THA) may increase risks of bleeding and related complications. We evaluated early postoperative pain, opioid consumption, and complications in patients undergoing primary THA with and without concomitant NSAID use.

METHODS: We retrospectively identified 5,881 consecutive patients who underwent primary THA for osteoarthritis between 2016 and 2023 and received postoperative anticoagulation (apixaban, rivaroxaban, warfarin, heparin, and/or enoxaparin). Of these, 4,867 patients (83%) were concomitantly prescribed NSAIDs; 1,040 (17%) patients received AC alone. Outcomes included change in VAS pain score and total 90-day opioid consumption (inpatient, discharge, and outpatient morphine milligram equivalents [MMEs]), bleeding complications, and PJI. Multivariable linear regression compared opioid consumption, adjusting for age, sex, BMI, ASA, CCI, race, ethnicity, chronic pain opioid use, preoperative opioid use, fibromyalgia, anxiety, depression, anesthesia type, peri-articular injection, inpatient status, and length of stay. Univariable logistic regression calculated secondary outcomes.

RESULTS: The mean \pm standard deviation changes in VAS pain scores six weeks postoperatively were -45.5 ± 26.9 for the AC group and -47.2 ± 27.6 for the NSAID group. Mean total 90-day opioid consumption was 560 ± 557 MME in the AC and 596 ± 710 MME in the NSAID group. After adjusting, this difference was not significant (4.7 MME [95% CI -39.7 - 49.2]). Similarly, there was no evidence of a difference in 90-day local complication rates between AC vs. NSAID groups, respectively: prolonged wound drainage (1.3% vs. 1.7%, odds ratio (OR) 0.7 [95CI 0.4-1.3]), hematoma formation (0% vs. 0.2%), and PJI (0.1% vs. 0.6%, OR 0.2 [95% CI 0.02-1.3]).

DISCUSSION AND CONCLUSION:

NSAIDs are frequently used in patients undergoing elective primary THA to improve pain, prevent heterotopic ossification, and provide cardiovascular benefits. Our findings suggest that its use in AC patients may not increase the risk of wound-related bleeding complications or PJI.