

Preoperative Opioid Use is Associated with Worse Preoperative Patient Reported Outcomes in Hip Arthroscopy Patients

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INTRODUCTION: As hip arthroscopy has dramatically grown in recent years, it is increasingly important to utilize patient reported outcomes (PROs) to help guide clinical practice. Despite the growing literature on hip arthroscopy, there is limited literature on the association between PROs in hip arthroscopy and preoperative opioid usage. The purpose of this study was to evaluate the rate of preoperative opioid usage and its association with preoperative PROs.

METHODS:

A single institution orthopaedic registry was retrospectively analyzed. All patients undergoing hip arthroscopy from 2015 to 2022 were analyzed. Patients were administered the Patient-Reported Outcomes Measurement Information System (PROMIS) in six domains, Numeric Pain Scores, and Musculoskeletal Outcomes Data Evaluation and Management System (MODEMS) Expectations domain preoperatively. Patients' charts were reviewed to determine demographic factors and preoperative opioid use within 6 weeks of surgery. Bivariate analysis was used to determine associations between preoperative opioid use and baseline PROs. Significant bivariate associations were further tested by multivariate analysis to determine independent predictors.

RESULTS:

Of the 123 patients included in the study, 21 patients (17%) were taking opioid mediations preoperatively. Prior orthopaedic or other surgeries were significantly associated with preoperative opioid use, but prior hip surgery was not associated (Table 1). Patients with preoperative opioid use scored significantly worse on preoperative PROMIS Physical Function (PF; 38.6±4.9 versus 40.5±6.9; p = 0.011), Pain Interference (PI; 65.9±8.0 versus 60.2±6.1; p = 0.0013), Fatigue (60.7±12.4 versus 51.6±10.1; p = 0.0051), Social Satisfaction (SS; 38.2±7.6 versus 43.2±7.5; p = 0.0073), and Depression (54.2±11.0 versus 48.8±9.0; p = 0.012) compared to those without preoperative opioid use. Preoperative opioid use was also associated with significantly worse Numeric Pain Scores for both the operative hip (6.3±2.4 versus 4.6±2.3; p = 0.0031) and whole body (3.0±2.7 versus 1.4±2.0; p = 0.0078) (Table 2). On multivariate analysis, preoperative opioid use was an independent predictor of worse baseline PROMIS PI, Fatigue and SS scores and Numeric Pain Score for the operative hip when controlling for potential confounding variables (Table 3).

DISCUSSION AND CONCLUSION:

Hip arthroscopy patients with preoperative opioid use had significantly worse baseline PROs for physical function, pain, social satisfaction, and depression than those who did not use preoperative opioids. When controlling for confounding variables, preoperative opioid use prior to hip arthroscopy was predictive of worse baseline pain, fatigue and social satisfaction PROs scores. Preoperative opioid use should be recognized prior to surgery and its effects on PROs should be considered.

Demographic Variable	No Pre-Operative Opioid Use (N=102)	Pre-Operative Opioid Use (N=21)	P-value
Age	52.1±12.2	52.1±12.2	0.998
Sex	57 (56.3%)	14 (66.7%)	0.125
Body Mass Index (BMI)	27.1±5.7	28.1±4.9	0.113
History of Osteoarthritis	64 (62.7%)	12 (57.1%)	0.480
History of Hip Fracture	11 (11%)	5 (23.8%)	0.089
History of Hip Surgery	12 (11.8%)	10 (47.6%)	0.000
History of Knee Surgery	12 (11.8%)	10 (47.6%)	0.000
History of Ankle Surgery	1 (1%)	0 (0%)	0.412
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