

Opioid Prescription Monitoring in Pre- and Post-Operative Sacroiliac Joint Fusion Patients

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Introduction

- Low back pain is the leading cause of disability worldwide¹. An estimated 15-25% of patients with chronic low back pain may in fact suffer from sacroiliac (SI) joint dysfunction²
- SI joint fusion is a common treatment option as patients report improvement in pain after surgery, but little is known about objective changes in opioid use before versus after this surgery^{3,4}
- This study aims to determine whether there is a difference in use of opioids to manage low back pain before and after SI joint fusion

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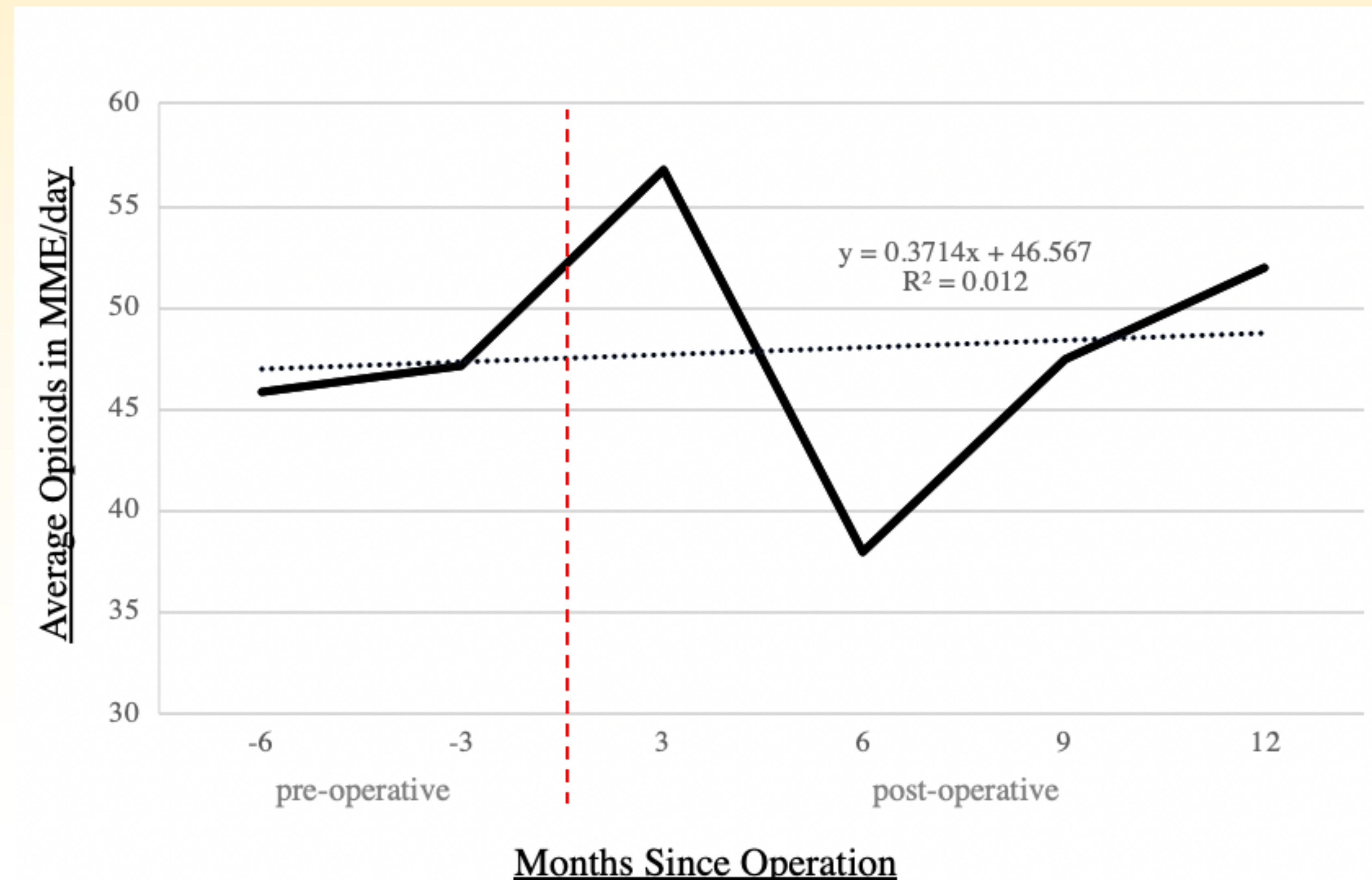
Methods

- Retrospective review of 62 cases treated with SI joint fusion
- Variables captured: Demographics, opioid prescription use (mean morphine milligram equivalents, MME), Pain Scores (VAS), Oswestry Disability Index (ODI), and Denver SI Joint Questionnaire (DSIJQ)
- Paired 2-sided T-test, Wilcoxon non-parametric, and Pearson's correlation were used to compare variables

Table 1: Quantity of Opioids Prescribed Over Time (N = 45)

Follow-up	Mean MME/day (SD)	P(T)-value (relative to 3-months pre-operation)
6-months preoperative	45.8 (63.1)	0.74
3-months preoperative	47.2 (57.8)	NA
3-months postoperative	56.8 (64.7)	0.29
6-months postoperative*	37.9 (61.6)	0.17
9-months postoperative	47.5 (65.2)	0.97
12-months postoperative	52.0 (58.8)	0.61

Figure 1. Average Opioid Prescriptions Before and After SI Joint Fusion



Results

- Compared to opioid use at 3 months before surgery, there was no difference in opioid use at any point postoperatively
- Age, sex, and diagnosis of anxiety and/or depression had no significant effect on opioid use before or after surgery
- Significant improvements in VAS scores were recorded for all postoperative clinical evaluation time points compared to preoperative scores
- By 6 months postoperatively, there was no significant correlation in VAS or ODI and opioid use. There was no significant correlation between the DSIJQ scores and the daily dose of opioids at any point postoperatively

Conclusions

- After SI joint fusion, patients reported significant improvement in pain (per VAS)
- There was no significant decrease in average use of opioids at any point postoperatively compared to the average MME/day measured at 3 months preoperatively
- A larger study is required to evaluate the true effect of SI joint fusion on low back pain and opioid use to treat residual pain
- Calculated MME may be misrepresented by the data collected from CPDMP