Postoperative Opioid-Prescribing Practices in Nasal Surgery: A Prospective Study

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Opioid-Prescribing Practices for Postoperative Patients in Facial Plastics and Reconstructive Surgery

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Introduction

• **Background**
  - Opioids have been reported to be overprescribed within otolaryngology \[1\]
  - Prescribing practices within facial plastics and reconstructive surgery (FPRS) have also fallen culprit to the same patterns
  - Literature demonstrates that patients do not consume as many pills as prescribed following FPRS procedures \[2-4\]
  - Filling this medication peri-operatively correlates with persistent and prolonged use \[5\], potentially leading to opioid dependence
  - The Surgeon General’s Report on Opioids stresses the need for alteration of post-operative pain regimen to manage pain but reduce unnecessary prescriptions \[6,7\]

• **Rationale**
  - In light of the opioid epidemic, there is a need to alter current opioid prescribing practices following FPRS
  - Provide data to guide prescription management for FPRS procedures
Objectives

- **Objectives**
  - This study will investigate opioid prescription and subsequent consumption for functional and cosmetic FPRS procedures, with the aim of developing evidence-based guidelines for postoperative pain management.

- **Research Question**
  - Can current opioid prescription practices following FPRS procedures be down-titrated without an increase in patient pain levels?

- **Hypothesis**
  - Current prescription practices can likely be down-titrated without an increase in patient pain levels.
Approach

• **Study design**
  – Prospective single center study

• **Population / study sample**
  – Patients (n=72) who underwent FPRS procedures
    • Septoplasty ± Functional Endoscopic Sinus Surgery (FESS), n=37
    • Nasal Fracture Reduction ± Nasal Valve Repair, n=26
    • Rhinoplasty, n=7
    • Nasal valve repair only, n=2

• **Outcome (dependent variable(s))**
  – Opioids consumed

• **Data source and collection**
  – Epic
  – Opioid usage, pain trends, and patient satisfaction were assessed using a paper questionnaire with a validated visual analog scale (VAS)

• **Analysis**
  – Utilize Microsoft Excel to calculate p-value differences for amount of opioids prescribed vs. opioids consumed
  – Review Manager (RevMan) 5
Results

- Patients were prescribed an average of 47.6 morphine milligram equivalents (MME).
- Patients consumed on average 28.9 MME:
  - 38% unused (p < 0.05)
- VAS scoring (0-10) trended down from mean 5.5 ± 2.8 at post-op day 0 to 1.7 ± 1.9 at follow up visit:
  - Mean time to follow up of 7.0 days
Limitations & Conclusions

• **Limitations**
  – Imbalance of patients undergoing functional vs. cosmetic procedures (65 vs. 7)
  – Variability in prescriptions provided
    • Hydrocodone-acetaminophen, codeine-acetaminophen, oxycodone, oxycodone-acetaminophen, tramadol
  – Survey was limited to the first follow-up appointment
    • Patients may have continued to experience pain and consume opioids afterward

• **Conclusions**
  – Provided with our data from a single institution, we provide evidence towards decreasing current opioid prescriptions to better mitigate overprescription of opioids
Future Directions

• Larger-scale studies assessing opioid prescription and consumption for nasal procedures
• Investigation of MME prescription and consumption in other facets of FPRS procedures
• Development of educational materials to counsel patients on anticipated pain and nonnarcotic pain management
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