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

Brian M. Yan

S. Hamad Sagheer

Cory D. Bovenzi

Uche Nwagu

David Cognetti

See next page for additional authors

Authors

Brian M. Yan, S. Hamad Sagheer, Cory D. Bovenzi, Uche Nwagu, David Cognetti, Howard Krein, and Ryan Heffelfinger

Sidney Kimmel Medical College at Thomas Jefferson University

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

Brian Yan BA, S. Hamad Sagheer BS, Cory Bovenzi MD, Uche Nwagu BS, David Cognetti MD, Howard Krein MD*, Ryan Heffelfinger MD*

Sidney Kimmel Medical College at Thomas Jefferson University

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

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Objectives & Hypothesis

- 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.

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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

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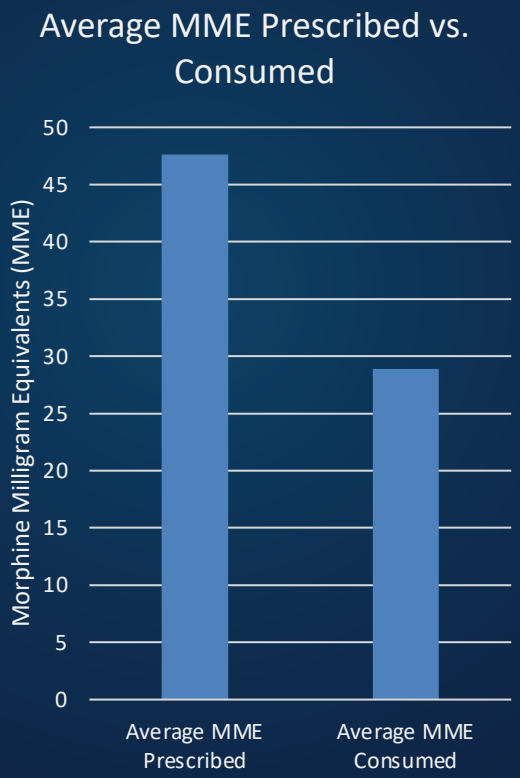
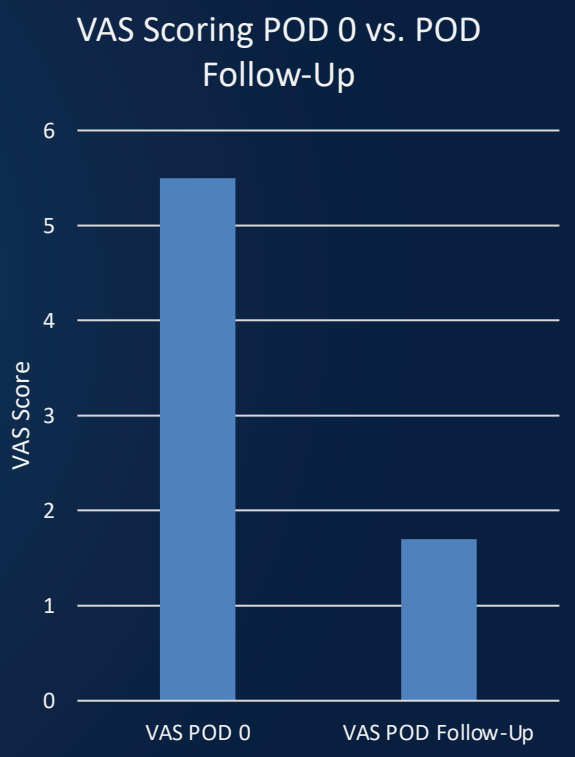
Results

- 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





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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

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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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References

1. Svider, P. F., Arianpour, K., Guo, E., Folbe, E., Zuliani, G., Lin, H., ... & Folbe, A. J. (2018). Opioid prescribing patterns among otolaryngologists: crucial insights among the medicare population. *The Laryngoscope*, 128(7), 1576-1581.
2. Sethi, R. K., Lee, L. N., Quatela, O. E., Richburg, K. G., & Shaye, D. A. (2019). Opioid prescription patterns after rhinoplasty. *JAMA facial plastic surgery, 21*(1), 76-77.
3. Patel, S., Sturm, A., Bobian, M., Svider, P. F., Zuliani, G., & Kridel, R. (2018). Opioid use by patients after rhinoplasty. *JAMA facial plastic surgery, 20*(1), 24-30.
4. Rock, A. N., Akakpo, K., Cheresnick, C., Zmistowksi, B. M., Essig Jr, G. F., Chio, E., & Nogan, S. (2019). Postoperative Prescriptions and Corresponding Opioid Consumption After Septoplasty or Rhinoplasty. *Ear, Nose & Throat Journal*, 0145561319866824.
5. Olds, C., Spataro, E., Li, K., Kandathil, C., & Most, S. P. (2019). Assessment of persistent and prolonged postoperative opioid use among patients undergoing plastic and reconstructive surgery. *JAMA facial plastic surgery*.
6. U.S. Department of Health and Human Services (HHS), Office of the Surgeon General, Facing Addiction in America: The Surgeon General's Spotlight on Opioids. Washington, DC: HHS, September 2018.
7. Murthy, V. H. (2016). A Promise Fulfilled—Addressing the Nation's Opioid Crisis Collectively. *Public Health Reports*, *131*(3), 387.