

Introduction

- Prescription narcotics account for a large percentage of abused opioids [1]
- Physicians are challenged with balancing pain relief with minimizing excess prescription opioids in the community
- Multimodal analgesia and alternative pain management strategies, such as the addition of prednisone to pain regimens, can potentially reduce the reliance on opioids for postoperative pain management and minimize the influx of prescription opioids into society for potential abuse [2]

Hypotheses:

1. Patients who received prednisone in their postoperative regimen used significantly less opioids during a 10-day postoperative course than those that did not
2. Patients who received prednisone in their postoperative regimen reported lower pain scores than those that did not

Methods

Patient Selection

- Patients who underwent oropharyngeal surgery for benign disease:
 - Tonsillectomy (T)
 - Tonsillectomy and adenoidectomy (T&A)
 - Expansion sphincter pharyngoplasty (ESP)
- Between December 2020 and April 2021

Postoperative Pain Regimen

- All patients received standard of care pain regimen:
 - Opioid (liquid oxycodone)
 - Acetaminophen
 - Gabapentin
 - Magic Mouthwash

- Three of the five providers also prescribed a prednisone taper

Measurement of Pain Scores

- Patients were contacted via telephone to discuss POD 0, 1, 5, and 10 pain score on a visual analogue scale from 0 to 10

Assessment of Narcotic Usage

- Patients were also asked to discuss the amount, dose, and frequency of narcotic used in the previous 24-hour period
- On POD 10, patients reported how much narcotic remained

Results

- Total of 38 patients recruited to date:
 - 33 patients in prednisone cohort (86.84%)
 - 5 patients in control cohort (13.16%)

Table 1: Cohort Characteristics

Cohort Characteristic	Received Prednisone	Did Not Receive Prednisone
Female gender	22 (67%)	3 (60%)
Age at surgery	37.39±13.89	29.60±5.77
Surgery received		
T	10 (30%)*	1 (20%)
T&A	17 (52%)*	3 (60%)
ESP	8 (24%)*	1 (20%)
Avg MME Rx'd	276.3±128.8	574.0±53.7
Avg MME Used	187.3±145.6	452.5±202.4
Avg MME Leftover	35.37%±33.84%	23.90%±33.5%
Number of Refills	8 (24.2%)	1 (20%)

*Some patients received multiple procedures at once, ex: both ESP and T

- 28 patients took Tylenol as prescribed (73.68%)
- 32 patients took Gabapentin as prescribed (84.21%)
- Patients who received prednisone consumed significantly less MME than patients who did not receive prednisone ($p < 0.001$)
- The MME leftover was not significantly different between cohorts ($p = 0.49$)
- Refill rates were not significantly different between cohorts ($p = 0.74$)
- Pain scores on each postoperative day (POD) were not significantly different between cohorts ($p = 0.73, 0.80, 0.22, 0.28$, respectively)

Table 2: Average Postoperative Pain Scores

POD	Received Prednisone	Did Not Receive Prednisone
0	7.0±2.2	6.6±2.3
1	6.7±2.8	7.0±2.0
5	6.1±2.6	7.6±1.3
10	4.0±1.9	3.0±1.9

Discussion

- There is abundant evidence in the literature that demonstrates highly variable and excessive opioid prescription in otolaryngology, including the areas of head and neck cancer, otology, palate surgery, and ambulatory surgeries [3-8]
- Therefore, otolaryngologists can help reduce the flux of opioids into the community by minimizing excess tablets in opioid prescriptions for their patients. [2]
- As the area of opioid research expands, numerous studies suggest that institutional guidelines and alternative pain management strategies (e.g., multimodal analgesic pathways) can successfully reduce opioid usage while maintaining patient satisfaction in otolaryngology [9-16]
- The current study describes how the addition of postoperative corticosteroids to a multimodal analgesic pathway affects pain scores, opioid consumption, and complication rates in adult patients undergoing benign oropharyngeal surgery
- Results to date revealed that the addition of prednisone to postoperative pain regimens reduced MME consumption without increased pain scores or refill rates

Conclusion

- Patients receiving a prednisone taper as part of their pain management cocktail used less narcotic than those not using steroids
- Through opioid stewardship and alternative pain management, physicians can reduce the influx of opioids into the community while upholding their responsibility of pain management for their patients

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