A Prospective Assessment of Postoperative Pain and Opioid Use Following Laryngeal Surgery

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Introduction

The opioid epidemic in the United States has been declared a public health emergency. A contributing factor has been the overprescription of opioid medications, particularly for postoperative pain management. Most patients undergoing surgical procedures are prescribed more opioids than they require, resulting in excess medications that are often diverted, misused, or lead to dependency[1,2].

Pain management remains a cornerstone of postoperative care, essential for facilitating recovery, maintaining patient satisfaction, and preventing chronic pain syndromes. In otolaryngology, pain management practices lack standardization. Sataloff, et al highlighted that patients undergoing laryngeal surgery report mild to moderate pain, with most achieving adequate analgesia using fewer opioid tablets than prescribed[3].

Aim:

- Evaluate postoperative pain outcomes and analgesic consumption in patients undergoing laryngeal surgery
- Quantify pain severity and quality
- Assess opioid and non-opioid medication usage and identify factors influencing analgesic needs

Results

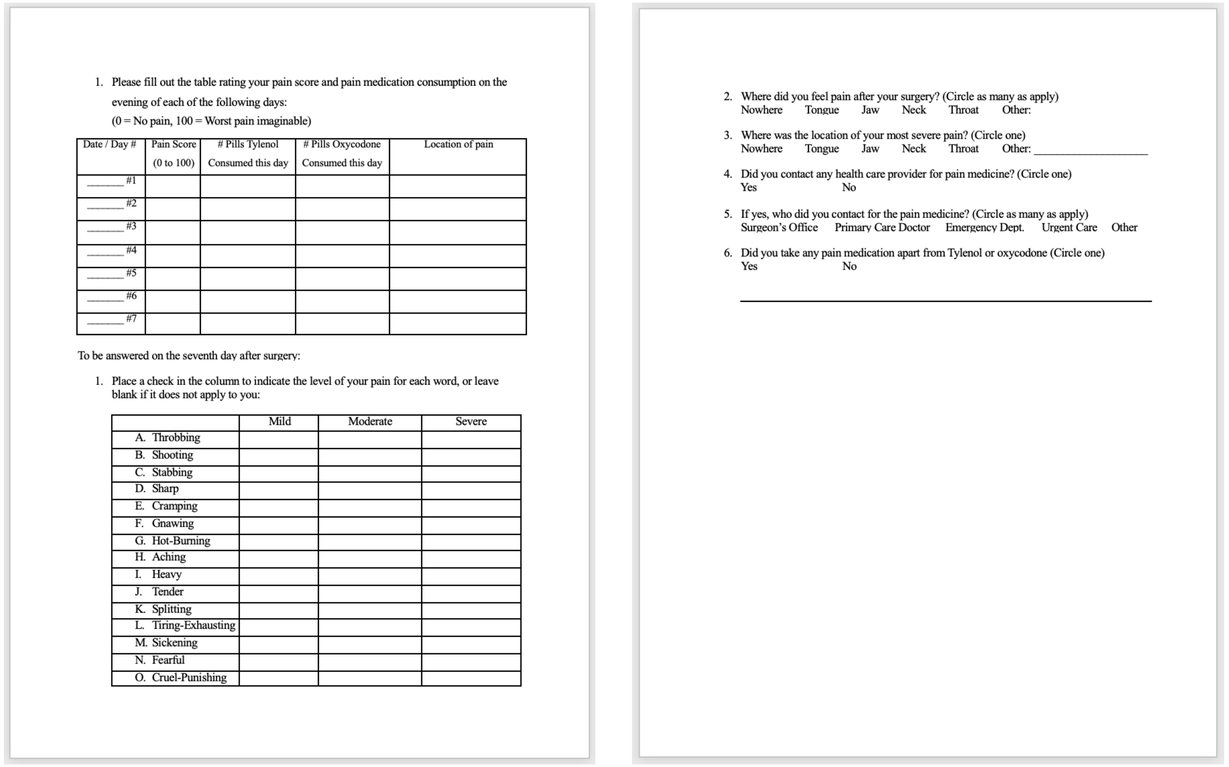
- Preliminary questionnaire data has been collected on 23 patients, 17 who have complete data.
- 13 of 17 (76%) patients reported a pain score of 0 at 2 weeks and at 4 weeks. For those that reported pain, the average score was 7 out of 100 at 2 weeks and 12 out of 100 at 4 weeks.
- Of 17 patients, average daily pain score for week 1 was 14.3 out of 100, mean daily number of Tylenol tabs consumed was 0.9, and Oxycodone was 0.1.

Table 1. Week 1 Avg Pain Score and Medication Consumption.

	Number of Patients (n)	Mean Daily # Tylenol Consumed	Mean Daily # Oxycodone Consumed	Avg Daily Pain Score (0–100)
Microflap Excision	7	0.6	0.2	9.2
Laser Excision	6	2	0	25.7

Methods

- Prospective cohort study investigating postoperative pain scores and opioid consumption in patients who underwent microlaryngeal surgery (microflap vocal fold lesion excision, laser vocal fold lesion excision, laser stenosis resection, and vocal fold injection medialization).
- Patients were prescribed Tylenol and Oxycodone post-op & administered a questionnaire to assess pain scores on a 0 to 100 scale and amount of pain medication consumed on post-op days 0-7, 2 weeks, and 4 weeks.
- Instructed to take Oxycodone for severe pain uncontrolled with Tylenol.
- Also administered a validated questionnaire (Short Form McGill Pain Questionnaire) and tracked unplanned contact and refills for pain medication.



1. Please fill out the table rating your pain score and pain medication consumption on the evening of each of the following days:
(0 = No pain, 100 = Worst pain imaginable)

Date / Day #	Pain Score (0 to 100)	# Pills Tylenol Consumed this day	# Pills Oxycodone Consumed this day	Location of pain
_____ #1				
_____ #2				
_____ #3				
_____ #4				
_____ #5				
_____ #6				
_____ #7				

To be answered on the seventh day after surgery:

1. Place a check in the column to indicate the level of your pain for each word, or leave blank if it does not apply to you:

	Mild	Moderate	Severe
A. Throbbing			
B. Shooting			
C. Stabbing			
D. Sharp			
E. Cramping			
F. Gnawing			
G. Hot-Burning			
H. Aching			
I. Heavy			
J. Tender			
K. Splitting			
L. Tiring-Exhausting			
M. Sickening			
N. Fearful			
O. Cruel-Punishing			

2. Where did you feel pain after your surgery? (Circle as many as apply)
Nowhere Tongue Jaw Neck Throat Other:

3. Where was the location of your most severe pain? (Circle one)
Nowhere Tongue Jaw Neck Throat Other: _____

4. Did you contact any health care provider for pain medicine? (Circle one)
Yes No

5. If yes, who did you contact for the pain medicine? (Circle as many as apply)
Surgeon's Office Primary Care Doctor Emergency Dept. Urgent Care Other

6. Did you take any pain medication apart from Tylenol or oxycodone (Circle one)
Yes No

_____

Figure 1. Week 1 Postoperative Patient Questionnaire.

Discussion / Conclusions

- Opioids are often used in the postoperative pain control setting, however, the amount of opioid medication used, and degree of postoperative pain is unclear.
- While data collection is ongoing, preliminary data shows that most patients experience a mild or moderate degree of pain following microlaryngeal surgery, and pain is controlled with the use of non-opioid analgesics.
- Patients endorse the most pain and largest amount of pain medication consumption within the first seven days of surgery, with most reporting minimal to no pain at 2 weeks.
- Most patients use fewer than the 5 tabs of Oxycodone prescribed in our protocol, and most did not have unplanned contact for refills or uncontrolled pain.
- Implementing a standardized prescribing guideline in laryngeal surgery may reduce opioid diversion and improve patient care outcomes, without increasing unplanned contact.

Contact

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