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Objectives

To discuss shifts in tracheotomy practices and determine trends in tracheotomy placement during the COVID pandemic.

Introduction

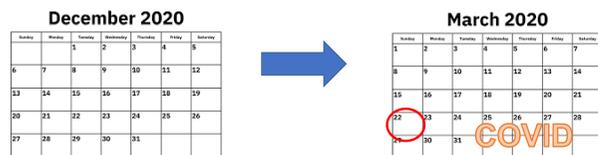
- Coronavirus disease 2019 (COVID) can cause respiratory distress, which can lead to intubation, and even tracheotomy.
- With the risk of viral aerosolization, tracheotomy practices were directly impacted by the COVID pandemic.
- Our study analyzes these practices at the pandemic's inception.

Methods

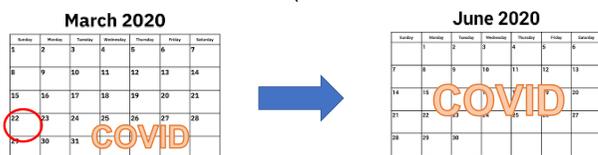
- This was a single institution retrospective study that included patients undergoing tracheotomy from December 2019 to June 2020.



- For this study, we designated 3/22/20 as the start of the pandemic because this is when our institution began implementing practice changes
- Cohort 1: Pre-COVID (Dec-Mar)



- Cohort 2: Post-COVID (Mar- June)



- Data was collected from the EMR.



- Statistical analyses were done via 2-tailed independent t-tests and Fisher's exact tests.

Results

- The main indication for tracheotomy in both groups was prolonged intubation, followed by adjunct to head and neck surgery.
- For patients undergoing tracheotomy for prolonged intubation, the means and ranges for time to tracheotomy in the pre-and post-COVID groups were 18 (4 - 40) and 20 (3 - 42) days, respectively ($p = 0.55$).
- There was no significant difference in overall length of stay ($p = 0.77$) or length of mechanical ventilation ($p = 0.56$) between the two groups.

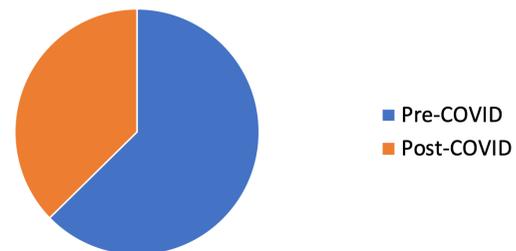


Figure 1: Cohort Breakdown. There were 42 patients in the pre-COVID group and 25 patients in the post-COVID group. No patients were COVID positive

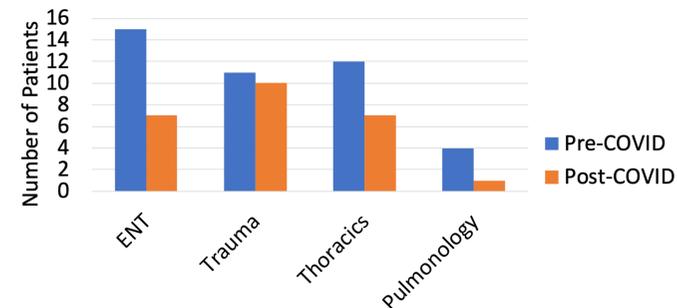


Figure 2: Service Performing Trach Pre-and-Post COVID. Before the pandemic, otolaryngology performed 36% of tracheotomies, followed by thoracic surgery (29%) and trauma (26%). After the pandemic, trauma performed 40% of tracheotomies, followed by otolaryngology (28%) and thoracic surgery (28%). This shift in departments was not significant ($p = 0.62$).

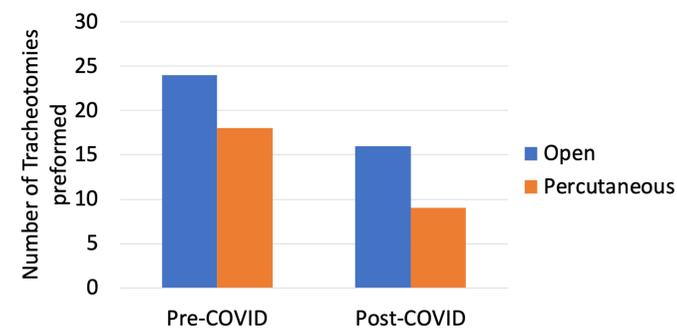


Figure 3: Location of Tracheotomy Procedure. In the pre- and post-COVID cohorts, 57% and 64% of tracheotomies were performed open, respectively ($p = 0.62$).

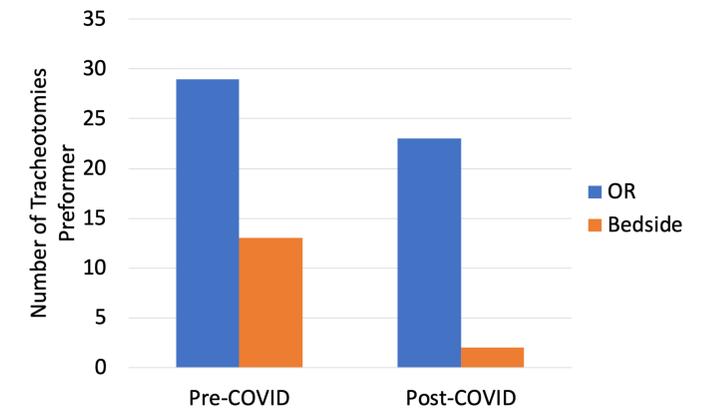


Figure 4: Type of Tracheotomy Procedure. There was a significant increase in the percent of tracheotomies performed in the OR ($p = 0.04$).

Conclusions

- At the start of the pandemic, there was a significant increase in tracheotomies performed in the OR, likely to limit viral spread, despite all patients being COVID negative.
- Although not significant, there was a trend toward performing more open tracheotomies.
- It is important to note that these data were collected early in the pandemic and additional trends may become apparent over time.

References

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