



COVID-19 Pandemic and Resident Experience with Key Indicator Cases

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ABSTRACT

Introduction: The COVID-19 pandemic led to a reduction in elective surgical procedures and the number of observers and assistants in the operating theater. Our group had previously assessed resident experiences with Key Indicator cases and wanted to see what if any impact the COVID-19 pandemic had on resident experience compared to the results acquired in 2018.

Methods: Using an electronic survey, current otolaryngology residents were solicited to complete a survey regarding their experiences with the key indicator cases to that point. The survey was sent to this cohort in the winter/spring of 2022. These results were compared to results obtained from a similar study in 2018.

Results: 152 residents responded, with 19.7% (30 responses) were PGY1, 22.3%(34) PGY2, 21.7%(33) PGY3, 19.0% (29) PGY4, and 17.1%(26) PGY5. 50% of the surveyed PGY5 residents had reached independent practice in glossectomy, neck dissection, tympanoplasty, mastoidectomy, intermaxillary fixation, vocal cord injection, and ethmoidectomy. Compared to the 2018 cohort, the end of training results were similar apart from stapedectomy dropping significantly (16% vs 4% performed independently). The timing of exposure to key indicator cases was delayed compared to the 2018 cohort including for congenital neck masses, rhinoplasty, thyroidectomy and glossectomy.

Conclusions: The COVID-19 pandemic impacted elective surgery and ultimately surgery training. While the ultimate breadth of training may not have been impacted, the timing and type of exposure were likely impacted by the pandemic.

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INTRODUCTION

Surgical Training Models

- Apprentice-mentor training
- Entrustable Professional Activities
 - Ottawa Surgical Competency Operating Room Evaluation (O-Score)
 - Modified O-Score for resident assessment

| Level | Figure 1: Modified O-Score |
|-------|---|
| 1 | Have you assisted with a _____ |
| 2 | Have you been primary surgeon for a _____ |
| 3 | Do you think you can perform _____ independently (without a more experienced surgeon in the room) |
| 4 | Have you performed a _____ independently (without a more experience surgeon scrubbed)? |

ACGME Otolaryngology

- Key Indicator Cases (KIC)
 - Minimum requisite number of cases (14 categories) as primary or supervising surgeon
- Assistant/Resident/Supervising Surgeon
 - Resident Assistant Surgeon: Surgeon performs <50% of the procedure, or ≥50%, but not the key portion(s) of the procedure.
 - Resident Surgeon: Surgeon performs ≥ 50% of the procedure, including the key portion(s).
 - Resident Supervisor: Surgeon instructs and assists a more junior resident through a procedure during which the junior resident performs ≥ 50% of the procedure including the key portion(s).

2018 Key Indicator Study (O'Brien et al.)

- National cross-sectional assessment of ENT residents regarding their experience with ACGME KIC
 - 303 Response, with 293 complete surveys
 - 20% of residents are unsure or do not feel they will be able to perform all KIC
 - No significant correlation between lack of confidence in KIC and fellowship plans ($p = 0.088$)

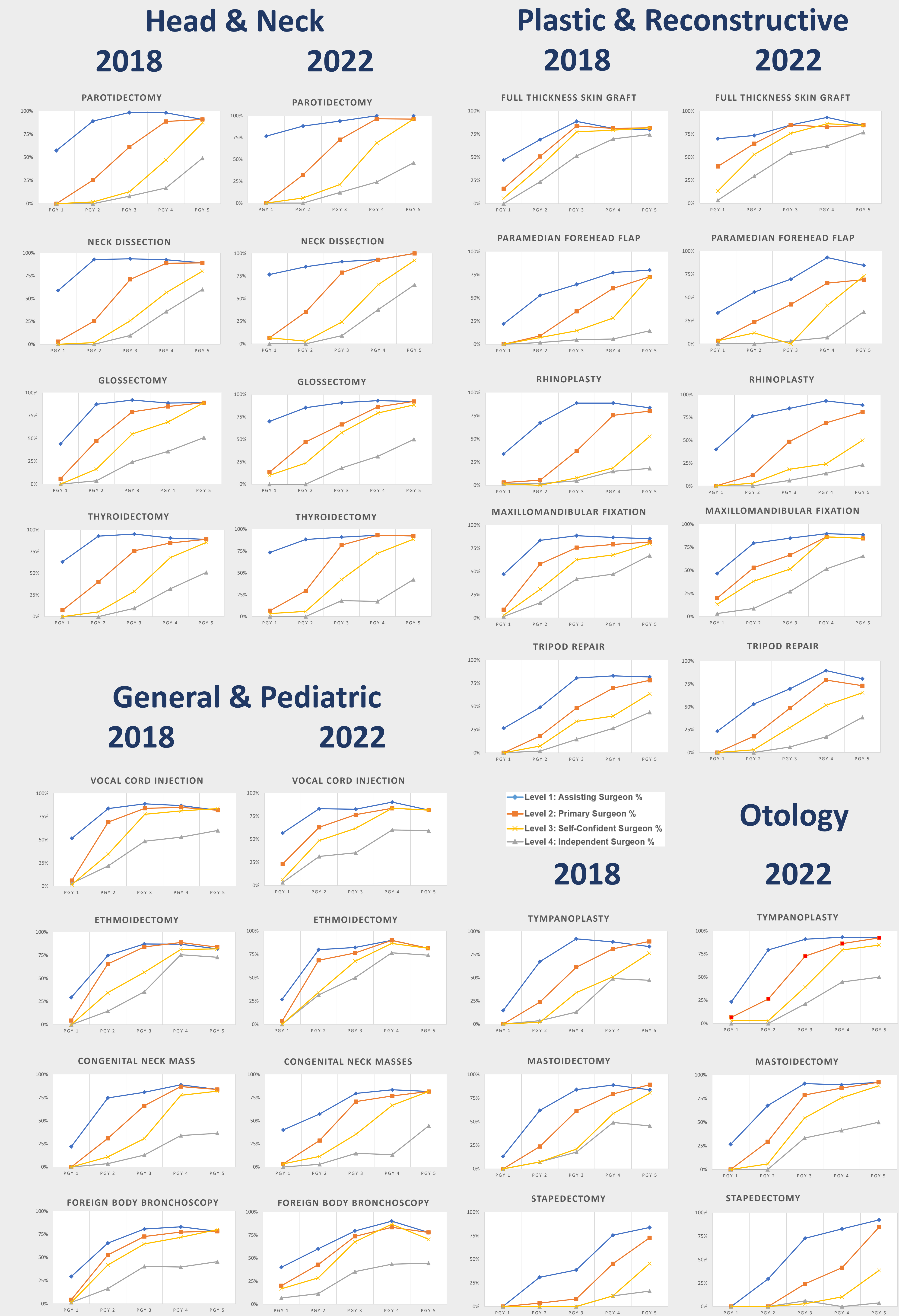
OBJECTIVES

To assess if the COVID-19 Pandemic (2020-2022) impacted resident exposure in both timing and volume to the ACGME KIC

METHODS AND MATERIALS

- Cross-sectional on-line survey of all otolaryngology training programs (n=124)
- Program directors/coordinators solicited
 - USD \$10 incentive for participating residents
- Custom Survey, modified from 2018 study
 - Residency & Program Demographics
 - Experience with key indicator cases
 - Modified O-score
 - Expectation to perform in practice
- 154 Respondents, out of a potential 1,500
 - Unknown how many residents received the survey

RESULTS



CONCLUSIONS

- Conclusions limited by response rate (~10%)
- End of training results unchanged between 2018 and 2022
 - Single exception: Stapedectomy (16% → 4%)
- Timing of exposure for open cases (e.g., H&N, Rhinoplasty) somewhat delayed/back loaded compared to 2018 data
- Repeat assessment required in 2-4 years to assess recovery