

Peer Review File

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Reviewer A

This is a retrospective 6-year review of the management of unilateral vocal cord paralysis and the associated dysphagia and aspiration pneumonia.

There are a number of limitations of the study. Only 50/71 patients were assessed by speech pathologists of which 64% had some form of dysphagia.

I recommend that the authors address the important cohort of 50 patients who had an evidence-based assessment by speech pathology and describe the number of admissions for aspiration pneumonia in this group. One cannot compare admissions in all 71 patients including 21 who were never assessed for swallowing.

- Reply: This has been updated in the text on lines 211 to 216 as well as in table 2

Secondly, it would be meaningful to provide data on the follow-up visits to ENT for the UFVP patients after medialization and how many received further injections and more definitive treatment

- Reply: this has been updated on lines 153-155: “The majority of patients had only undergone one injection laryngoplasty by the end of the study period. 15 had undergone two IL’s and four had undergone three IL’s. The mean interval between subsequent IL’s was 12 months (range 2 to 37 months).”
- Patients were excluded if they had undergone an external framework thyroplasty – line 145

Reviewer B

General comments:

Overall, this is a succinct, well-written paper which is relevant to the Australian readership. I have made some minor comments.

1. The authors should be consistent with the number of decimal places for percentages given throughout the text (currently there is a combination of whole percentages and those given to one decimal place).
 - a. Reply: This has been corrected to zero decimal places throughout the text. Confidence intervals and p-values left as 2 decimal places in table 2

Specific comments:

Introduction

2. Line 75-76: “Depending on severity of injury” – the likelihood of recovery also depends on the underlying cause of UVFI and should be amended
 - a. Reply: This has been updated on line 81-82: “depending on the severity of the injury causing the UVFI and underlying aetiology”

3. Line 82-83: Is there any more recent data on hospital admissions in Australia for pneumonia? The statistics given are from 2006-2008 whereas the present study period was 2015 – 2020.
 - a. Reply: This has been adjusted with more up to date data. See lines 88-89: “In Australia, episodes of pneumonia of any cause requiring hospitalization have been reported to be over 123,000 episodes between 2017-2018(12)”
 - b. Reply: Reference also updated

Methods

4. Line 118: “Speech pathology swallowing assessments” is not an outcome measure – could the authors be more specific in what secondary outcome was measured from these assessments?
 - a. Reply: This has been adjusted on lines 134-135: “Secondary outcomes included; post-injection laryngoplasty pneumonia free survival and the prevalence of both subjective reports and objective assessments of dysphagia among patients with UVFI.”
5. Statistics, Lines 120-123: What was the significance cut off used for this study?
 - a. Reply: This has been updated on line 139: “Statistical significance was defined as $P < 0.05$ ”

Results

6. Paragraph 4, Lines 150-157: This paragraph details comparisons between patients who had recurrent pneumonia and those who did not. These results details should be provided in more detail with appropriate p values.
 - a. Reply: This has been updated in the text on lines 196 to 216 as well as in table 2
7. Lines 156-157: “There were no other significant differences between aetiology of UVFI or speech pathology assessments” – the data and statistical comparisons for this statement should also be provided in the results section of this paper.
 - a. Reply: This statement has been removed, additional statistical analysis has been added on lines 196 to 216 as well as in table 2
8. No clear results are given for the outcome of speech pathology swallowing assessments – this should either be provided or potentially removed as a secondary outcome measure as the authors already give the prevalence of dysphagia in their cohort.
 - a. Reply: This has been updated in the text on lines 205 to 216 as well as in table 2

Discussion

9. The authors found a significantly higher proportion of patients undergoing injection laryngoplasty in theatre had recurrent pneumonia compared with those undergoing the procedure in the office, however this is not mentioned in the discussion.
 - a. Reply: This has been added in lines 243-246: “When comparing post IL pneumonia rates based on procedure location we found better outcomes in those who had their procedure in clinic versus in theatre. This finding may be a secondary to the ability to make a better intra-procedural assessment of glottic closure on phonation in a patient who is self ventilating and not sedated.”
10. Another limitation of this study to consider is the lack of a comparison cohort with UVFI without undergoing injection laryngoplasty
 - a. Reply: This has been added on lines 300-301: “Another limitation of our retrospective study was that we were unable to identify a cohort of patients admitted with aspiration pneumonia

and normal vocal fold function or alternatively a group of patients with UVFI that did not undergo IL to use as a comparator group.”

Table 1

11. Aetiology percentages add to 101% - this should be amended to total 100%.
 - a. Reply: This has been updated in table 1