Peer Review File

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Major Changes made:

We have changed the title of the manuscript to 59 cases from 69 cases for multiple reasons. We unfortunately only had complete data for the 59 cases. For the other 10 cases it was not clear from the medical records the grade of web and type of management which made statistical analysis difficult. Although we had some demographic data on the 10 cases we felt it confuses the readers and does not flow well with the manuscript as a whole. We have proceeded to make amendments to the rest of the manuscript to discuss the 59 patients and have edited our inclusion criteria.

We have also added the decannulation rate following tracheostomy and the age at time of surgery as recommended by the editors.

Reviewer: Obvious omissions include but aren't limited to, pages not numbered, no keywords, tables embedded within text rather than provided separately All these features aid the reviewer and improve the likelihood of publication.

Author: Thank you for the link to the author instructions. We have gone through the instruction list as advised and made the appropriate changes as instructed in the journal guidelines.

Reviewer: This paper seems to focus mostly on endoscopic management which is an important management technique but often this is ambiguous on the first read through. If this is the central focus of the paper this should be made clearer, but if the paper wants to discuss all management strategies then more information is required for the open reconstruction patient group and those managed conservatively. Both the results and discussion require rewrites for this.

Author:
Thank you for your feedback,

The central focus of our paper aims to discuss the following points:

1. As this paper is the largest series of congenital anterior glottic webs, we aimed to provide descriptive data of the demography of this population.

2. Describe the outcomes of endoscopic surgery on anterior glottic webs including recurrence and revision rates.
3. To provide a management algorithm for the management of these children.
4. We also provide some information for the readers on those who underwent laryngotracheal reconstruction, tracheostomy and conservative management.

The authors acknowledge that the paper does not explicitly make these above points clear on the first read and so changes to reflect the above have been made clearer – specifically in the introduction of the paper.

Reviewer: The results do not find a correlation with age, however I am uncertain what age the authors are using to base this result on, the only age they provide is the age at diagnosis and this may differ greatly from the age at surgery. Further data is required to support this. Grade 1 and 2 are unlikely to cause airway symptoms and thus surgery may be delayed past the neonatal period. Or is it the authors practise to divide these webs early and if so what is the rational for this approach. Grade 3 and 4 are more likely to have significant airway symptoms requiring early intervention however in many cases this would be tracheostomy with a later staged LTR or is it the authors preference to perform a one stage LTR to prevent the need for tracheostomy, It would be very useful for the data to include the median/mean age for surgery for each grade of web.

Author:
The authors have added to the manuscript the mean age at surgery (page 8, line 205) and have made it part of the results section (table 5) as recommended by the reviewer.

For higher grade webs, it is the senior author's preference to do a single stage laryngotracheal reconstruction and avoid a tracheostomy however this may not always be practical and is patient dependent (page 9, line 217)

The above is added to the paper in order to clarify these queries for the reader.

Reviewer: Significant data not available to the reader and in places the authors only use percentages without the raw data. Readers require figures to determine for themselves the authors conclusions.

Author: We have added figures to make the manuscript easier to interpret for the reader.

Reviewer:
Introduction:
This cohort focuses on congenital webs yet the introduction doesn't touch on the embryology of this disorder.

Author: The authors acknowledge the manuscript does not touch on the embryology on the disorder. We have added to the manuscript (page 4, line 99) in the introduction to discuss this further.

Reviewer: The introduction should a) give context b) create a knowledge gap c) preview the authors plan. This can be achieved in three paragraphs.
This introduction gives context but doesn't inform the reader on the knowledge gap eg is cold steel better than CO2 laser, mitomycin better than keel? Is there an optional age for treatment. Do any risk factors eg 22q increase the risk of poorer outcomes? The abstract probably says it better: which factors influence outcomes? Was the aim to provide an algorithm? The knowledge gap could also include lack of large series which this paper helps address.

Author: Thank you for your feedback, we have added to the introduction to discuss the current knowledge gaps in the literature and the aims of our manuscript to address some of these issues. We have made this clearer in the manuscript as recommended (page 5, line 123)

Reviewer: Methods
Suggest rearranging the paragraphs. One sentence does not make a paragraph.
Data source
Patient population - including technical background on keels, mitomycin
Outcomes measured - would have been useful to include decanulation as an outcome measurement.
Statistical analysis

Author: Thank you for your recommendations. We have rearranged the paragraphs and edited it in a way which flows better for the reader. We have removed the one sentence paragraph's and made the methods more succinct.

Results:

Editor:

Needs rewriting. To many short paragraphs and not all raw data available to reader.
69 patients but compete results only on 59- this causes some confusion within the results.

Author:

Thank you for your feedback, the authors agree that the disparity between the two figures causes confusion among the readers. The authors have decided to exclude the 10 patients as discussed above given the lack of medical records. We have also rewritten the results section to remove short paragraphs.

Reviewer: Table 2- presenting symptoms - total 74 - Presumably patients presenting with more than one symptom - if so should be mentioned. The percentages add to more than 100% Similarly with synchronous pathology. May be a better way to present these results.

Author: Children often would present with multiple synchronous lesions and also multiple symptoms. The authors have made this more explicit in the results section to explain the above. We have adjusted table 2.

Reviewer: The proportion of high grade webs was greater in patients with synchronous airway lesions (57.5%) compared with those having solely an anterior glottic web (23.0%),
can we have the raw numbers for this please. Are these percentages based on the 59 patients for which complete data is available?

Author:

These percentages are based on the 59 patients with the complete data. The 10 patients as mentioned earlier have now been excluded as they do not have complete data making statistical analysis impossible.
The raw data has been provided for the reader. (Page 8, line 189-194)

Reviewer: There was no association between the grade of glottic web and presence of 22q11.2 DS (Chi square, p=0.928), any genetic syndrome (Chi square, p=0.412), cardiac comorbidity (Chi square, p=0.928), positive family history (Fisher's exact, p=0.318), age group (Fisher's exact, p=1.000) or gender (Chi square, p=0.879).
can this also be presented in table form with raw data. Once again based on 59?

Author:

These percentages are based on the 59 patients with the complete data. The 10 patients as mentioned earlier have now been excluded as they do not have complete data making statistical analysis impossible.
The raw data has been provided for the reader. (Page 8, line 190-194)

Reviewer: Congenital heart anomalies were diagnosed in 27 patients (39%) in which 78% of those
diagnosed were also found to have 22q11.2 DS (Fisher's exact p=0.023). The most common cardiac lesions were ventricular septal defect (20.5%) and atrial septal defect (20.5%). Other less common cardiac conditions found included truncus arteriosus, coarctation of aorta andTetralogy of Fallot.
present raw data and perhaps include table

Author:

The raw data has been added to the results section to include the number of patients with associated cardiac conditions as recommended. (Page 8, line 195)

Reviewer: Low grade webs were more common than higher grade webs with grades 1 and 2 comprising 25.4% and 32.3% respectively and grades 3 and 4 comprising 28.8% and 13.6% of congenital anterior glottic webs
numbers again - or refer to table 3. Would seem grade 3 webs are as common as grade 1 and 2?

Author:
The authors have added the raw data for the grades of webs highlighted in table 3. We have made this more explicit for the readership. The wording has also been changed to avoid confusion.

Reviewer: There was insufficient information in the medical notes to accurately classify the grade of
web for 10 patients and these patients were excluded from statistical analysis.
would put this paragraph first before results.

Author:
The authors appreciate the confusion in regards to the disparity in results at the start of the manuscript and results section as initially the paper focused on the 69 patients with

incomplete data and then the 59 with complete data. The authors feel that the 10 patients should be excluded from the paper given the extent of the lack of information. The difference in numbers also confuses the readers.

Reviewer: Table 3 - needs should say ENDOSCOPIC division
I think it would be clearer to have a table that included both endoscopic and open treatment of web, would also make it clearer which ones were managed conservatively.

We have created a new Table 3 to include an overall summary of the surgical management of anterior glottic webs. The original table 3 has been changed to table 4 and title changed to say endoscopic division. The focus of this paper is the endoscopic treatment of laryngeal webs and statistical analysis focus' on these. We have included a paragraph later to describe the data on those patients who had no treatment for their web (observation) and those who underwent laryngotracheal reconstruction.

Reviewer:
The remaining 16 patients were managed conservatively.
not clear from text which patient group this is - if was part of a treatment table reader could determine this for themselves.

Author: We have rearranged the results section to describe these 16 patients who were managed for conservative management. We have also added a new table as suggested – Table 3 which aims to summarise the treatment modalities by grade in order to better assist the reading of the paper.

Reviewer: 3.4 - Surgical division of web - clarify endoscopic
once again if this data could be incorporated into table 3 it may make it easier to digest. Lots of good information in these paragraphs but need raw data somewhere for reader to analysis for themselves.

Thank you,

We have created table 3 in order to help the reader digest all the results and come to conclusions themselves.

High grade webs had significantly higher rates of recurrence (Fisher's exact $p<0.001$) and revision surgery ($p=0.002$) than low grade webs
numbers required to state this

Thank you, we have made this clearer by referring to table 4 which describes the raw numbers for the recurrence and revision rates by grade.

3.5 - LTR - again this should be within a table. One stage or two and how many decanulated after 1st operation?

Thank you for your suggestion. We have added into our paper table 3 that incorporates LTR as a treatment modality. We have further added tracheostomy insertion and the rate of decannulation as descriptive data as recommended by the editor. (Page 9, Line 221-228)

3.6 - tracheostomy - including in the treatment table would be clearer, with text explaining detail. Of those with tracheostomies how many were able to be decanulated?

Thank you, we have added further data to our paper in order to explain both LTR and tracheostomy as part of the management technique and incorporated as part of table 3 as per the reviewer's suggestion. (Page 9, Line 221-228)

Discussion:
Reviewer: The discussion requires rewriting. It should highlight the major findings in the results (try and get to 1 paragraph), put these findings into contact from the literature (2 paragraphs) discuss limitations (1 paragraph)and how authors tried to mitigate, and then discuss implications of findings eg provide an algorithm and discuss what we still don't know (1 paragraph)

Author:
Thank you for your recommendation.
We have rearranged and rewritten the discussion in order to reflect the above recommendations.

Reviewer: Risk factors for recurrence -
All patients with high grade webs had clinically significant recurrence of the web and all but one patient had revision surgery
authors are referring to endoscopic division I think which is an important differentiation from open treatment which has a better outcome fo high grade. When it comes to the the indication for revision I presume it persistent airway symptoms rather than voice?

Author: the above statement is referring to endoscopic operation. This has been edited in the paper.

4.4 management algorithm

CMA - would suggest writing this in full - although mentioned earlier in the article this term is unlikely to be familiar to many readers

Thank you, we have changed CMA to its writing in full as recommended. (Page 14, Line 333)

Suggested future studies should look into outcomes of voice quality given its implications on intellectual and psychosocial impacts in children. Research into adjuncts to endoscopic surgery should also be explored, including the use of mitomycin C or other anti-fibroblastic agents, to further optimize clinical outcomes, in providing a stable respiratory airway effective in respiration, feeding, airway protection and phonation.

This would read better at the end of the discussion. The lack of voice outcomes is a limitation in almost all studies published to date. Can author please check spelling- American vs English -optimise.

Thank you, we have changed it to be at the end of the discussion and adjusted the spelling as recommended.

5. Limitations

Reviewer:
Lack of objective measures. Lack of voice outcomes.
What is the evidence in the literature for mitomycin?
What if is the existing evidence regarding keels. At what age can keels be used safely?

We highlight these points in the discussion. Not many papers currently exist for its use in anterior glottic webs and has been suggested given its use in other disease process'. This is discussed in the "discussions" section of the paper. (Page 13-14, Line 311-322)

Reviewer B:
Can the authors answer the following questions

How did they decide between cold steel and laser? What was the indication for the use of Mitomycin? What was the indication for the use of a keel?

It is the senior authors preference to use endoscopic cold steel incision for the treatment of anterior glottic webs. Those who underwent laser or keel placement were performed by other surgeons based on their preference. Mitomycin C is used by the senior author in those patient's who present with recurrence in order to prevent scarring, and not routinely used. We have explained this in the manuscript now. (Page 14, Line 337)

Reviewer:
What was the decannulation rate for patients with high-grade webs following LTR?
We have added the data for decannulation rate as recommended in the results section.(page 9, line 221)