

## Peer Review File

Article information: <http://dx.doi.org/10.21037/ajo-20-71>

### Reviewer A:

#### Comments:

This paper presents one of the largest series of glomus tympanicum tumours in the literature as well as a literature review. Although the AJO does not publish case reports or case series, there may be value in publishing this paper.

The paper overall is well written but there are some confusing sentences and syntax errors will need to be corrected .

#### Specific comments

Comment 1: The paper refers to the study as “this series” whilst also referring to other series in the literature. This is confusing to the reader. I would recommend that instead of “this” series, the authors use the term “our” series to make it clear

*Reply 1: “This series” has been changed throughout the manuscript to “our series”*

Comment 2: Line 35 – it is worth referring briefly to the term glomus tympanicum which although older, is one that many readers would familiar with eg. Line 35 or Line 80 consider introducing this term

*Reply 2: Glomus tympanicum has been introduced in Line 35*

Comment 3: Line 53 – Decibel should be dBHL or dB SPL – please clarify

*Reply 3: Corrected to dB HL*

Comment 4: Line 158 – suggest spell out IQR (? Interquartile range)

*Reply 4: Corrected to “with Interquartile Range (IQR) of”*

Comment 5: Line 179-181 – dBHL should be decibel hearing level not hearing loss

*Reply 5: Corrected to “decibel hearing level”*

Comment 6: Line 183 – is this difference significant?

*Reply 6: A descriptive analysis was thought best for audiological outcomes as there was only complete audiological information on 37.5% of the cohort and the timing of post-operative audiology was variable. Thus, statistical analysis for this outcome was not felt to be warranted as the interpretation would have been difficult.*

Comment 7: Line 191 – suggest using non abbreviation = “could not”

*Reply 7: Change to “could not”*

Comment 8: Line 194 – suggest 40 instead of 40.0

*Reply 8: Changed to 40*

Comment 9: Line 196 – suggest adding a brief explanation on what progression free survival values

*Reply 9: This is defined in Line 126 “ Treatment failure, or progression, was defined as recurrence requiring further intervention after 2 years from initial treatment, or metastasis or death at any time after initial treatment has occurred.”*

Comment 10: Line 209 – suggest replace “on the whole” with “usually”

*Reply 10: Changed to “usually”*

Comment 11: Line 215 – suggest “...conservative management is generally offered to patients unfit for surgery”

*Reply 11: Changed to “conservative management is generally offered to patients unfit for surgery”*

Comment 12: Line 217 – suggest replace “will minimise” with “minimises”

*Reply 12: Changed to “minimises”*

Comment 13: Line 222 – confusing sentence suggest “The literature reports two different statistics with regards to age 1) Age at presentation and 2) Age at first treatment”

*Reply 13: Changed to “The literature reports two different statistics with regards to age 1) Age at presentation and 2) Age at first treatment, however it is often unclear which is being reported”*

Comment 14: Line 223 – is the average age of TPG the average age of presentation?

*Reply 14: The average age referred to in Line 223 reflects a combination of age at presentation and age at first treatment, as discussed in Reply 13 it is often unclear in the literature which is being referred to. In addition, observation is not commonly performed for TPG so age at presentation and age at first treatment are unlikely to be significantly different.*

Comment 15: Line 229 – suggest replace “dominant” with “preponderance”

*Reply 15: Changed to “while in the literature there is no reported preponderance”*

Comment 16: Line 231 – suggest “..has been reported in the literature for HNPGLs...”

*Reply 16: Changed to “..has been reported in the literature for HNPGLs...”*

Comment 17: Line 232 – suggest new sentence “The gender distribution for the different...”

*Reply 17: Changed to “The gender distribution for the different...”*

Comment 18: Line 238 – suggest join to previous paragraph

*Reply 18: Joined the paragraphs*

Comment 19: Line 242 – what doesn't the tumour dimension refer to? Which series was this in?

*Reply 19: In the literature maximum tumor dimension is often ill defined. This sentence is intended to clarify that in our series the maximum dimension was calculated:*

- 1) radiologically (as the largest dimension)*
- 2) in any one of the formats (standard axial/coronal/sagittal). As opposed to obtaining dimension information using a non-standard format such as oblique reformat or through 3D reconstruction.*

Comment 20: Line 243- suggest “plane” instead of “plain”

*Reply 20: Changed to “plane”*

Comment 21: Line 242 paragraph – how is this relevant to this study? Is there anything reported in the literature on this?

*Reply 21: It is well reported that tumor presentation for tympanic paragangliomas occurs at a smaller size than other head and neck paragangliomas. Our series supports that with a median maximum dimension of 9mm. This paragraph is an explanation of that finding. The paragraph has been rewritten as follows;*

*“The median maximum tumor dimension at presentation in our series was determined via radiological means as the maximum dimension in any plane either axial, sagittal or coronal. TPGs are often diagnosed while small and our series supports this finding. This is thought to be due to TPGs eliciting symptoms, such as hearing loss or pulsatile tinnitus, at an earlier stage compared to other HNPG.”*

Comment 22: Line 248 – add comma after the word “series”

*Reply 22: Comma inserted*

Comment 23: Line 248 – suggest replace “this was made up” with “ comprised “

*Reply 23: Changed to “comprised”*

Comment 24: Line 250 – add comma after “literature”

*Reply 24: Comma inserted*

Comment 25: Line 257 – suggest remove “Now” and capitalise “Genetic”, add “now” to after “screening”

*Reply 25: “Now” removed and inserted after “screening”*

Comment 26: Line 265 – replace “is” with “are”

*Reply 26: Changed to “are”*

Comment 27: Line 271 – does this paragraph really justify the need for testing? The authors seem to argued the opposite

*Reply 27: Agree that routine testing for TPGs are not indicated. There is little in the literature about the occurrence of SDH mutations in TPGs, though what is reported does not show a strong association. In our study 7.1% of TPGs had an SDH mutation and while that is a low rate, the implications of an SDH mutation for a patient are significant. So if there is concern testing for an SDH mutation should be considered on a case by case basis.*

*Sentence rewritten to reflect the reviewer’s comment; “ Based on this study screening patients with TPGs for other paragangliomas or a predisposing germline mutation though not routinely needed should at least be considered on a case by case basis.”*

Comment 28: Line 279 – Suggest new sentence starting with “The reason for this is uncertain but it may be...”

*Reply 28: Changed to with “The reason for this is uncertain but it may be...”*

Comment 29: Line 281, 287, 291 – change “this series” to “our series”

*Reply 29: Changed to “our series”*

Comment 30: Line 306 – suggest “sensorineural”

*Reply 30: Changed to “sensorineural”*

Comment 31: Line 318 – how many failures were non-surgical?

*Reply 31: There was one treatment failure that was non-surgical, and the other four were surgical treatment failures.*

*The section has been re-written to include this “Of the 5 failures 40% (n=2) were both treated and then successfully salvaged with surgery at our institution. Another 40% (n=2) were operated on elsewhere and referred due to a recurrence requiring surgery. The last failure was a patient with a TPG who initially requested conservative management, but then after 15 years of observation required surgery due to progressive tumor growth and associated symptoms.”*

Comment 32: Line 347 – add “and” after “rare”

*Reply 32: “and” inserted*

Comment 33: Line 347 -give examples of complications

*Reply 33: Inserted “such as tympanic membrane perforation or post-operative wound infection”*

Comment 34: Line 348 – suggest replace “ not included” with “excluded”

*Reply 34: Changed to “ excluded”*

**Reviewer B:****Comments:**

This paper describes a significant series of Tympanic Paraganglioma. Whilst it is limited by being retrospective and contains little detail of the type, or evolution, of the surgical procedures used to manage the cases, it is a worthwhile review and appropriate for publication.