

Peer Review File

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Reviewer A

Comment 1

This is an excellent general overview of Temporomandibular Disorders (TMD) associated with Otagia based on a review of 78 relevant articles selected via PRISMA. It provides a diagnostic algorithm that is useful.

I think the article would be stronger if the authors placed more emphasis on the TMD Pain Screener questionnaire given that this has demonstrated such a high sensitivity and specificity. Highlighting this useful tool would be of benefit to all ENTs in practice.

The diagnostic algorithm summary that they provide is outstanding.

Reply 1

We thank the reviewer for taking the time to review and comment on our manuscript. We agree that the TMD-pain screener is a very valuable clinical tool and should be known by all ENT surgeons. As such, we have expanded the section describing the TMD-pain screener in the clinical history section to further emphasise the tool's accuracy and ease of use, suggesting that all ENT surgeons routinely apply it in clinical practice. We have also ensured the TMD-pain screener is mentioned in the manuscript's abstract, conclusion, and diagnostic algorithm.

Changes in the text

We have modified our text as advised (see the revised sentences "*Every ENT surgeon should familiarise themselves with and routinely apply the six-item TMD-pain in their clinical practice to rapidly and confidently diagnose TMD (Table 2) (70). A score greater than or equal to three demonstrates a 99.1% sensitivity and 96.9% specificity for differentiating pain-related TMD from healthy controls*"). The TMD-pain screener is also now mentioned in the conclusion and abstract of the manuscript.

Reviewer B

Comment 1

This is a well written state of the art review article on a common topic in ENT practice.

I identified only 2 minor typo errors:

p7- in settings where pain has persisted beyond six months, [pain]

p10- The diagnosis of TMD can be made easily based on the presence of otalgia modified by movement of the jaw and elicitation of familiar pain on palpation of the temporals and master muscles. [temporalis and masseter]

Reply 1

We thank the reviewer for taking the time to review and comment on our manuscript. These typos have been amended in the manuscript.

Changes in the text

We have modified our text as advised (see the revised sentences "*In settings where pain has persisted beyond six months...*" and "*The diagnosis of TMD can be made easily based on the presence of otalgia modified by movement of the jaw and elicitation of familiar pain on palpation of the temporalis and masseter muscles*").

Comment 2

An occlusal splint is briefly mentioned in the "The ENT surgeon in the multidisciplinary team" section- I would have liked more detail on this, as this is a mainstay of management.

Reply 1

Whilst the detailed aspects and evidence surrounding treatment approaches are outside the scope of this study, we agree that more detail on occlusal splint therapy is needed. We have described the findings of the study evaluating splint therapy included in our search and have highlighted that based on currently available randomized control trials, there remains currently mixed evidence on the efficacy of splint therapy for TMD and bruxism. These RCTs have been cited in the manuscript.

Changes in the text

We have modified our text as advised (see the revised sentences "*Kutilla et al. [90] demonstrated through a randomised-control study that TMD patients who received a stabilisation splint had a statistically significant reduction in the intensity of secondary otalgia whilst the control group did not. However, it is important to note that evidence on splint therapy to manage TMD symptoms and bruxism from available randomised control studies remains mixed and further studies are required (93,94)*").

Comment 3

There was no mention of the role physiotherapy for TMD- I have 2 x TMD trained physiotherapists in my region who are more interested and successful in managing this than my dental sub-specialty colleagues- I think mention of this would be appropriate too.

I recommend acceptance of his article with only minor revisions.

Reply 3

It is undoubtedly true that physiotherapists are also a critical component of the multidisciplinary team in TMD management. Although this was mentioned very briefly in the text, it should be further emphasized. Whilst remaining in the scope of the study, we have outlined the need for early referral to a physiotherapist and some of the treatment approaches typically used. We have also cited an article supporting the involvement of physiotherapy.

Changes in the text

We have modified our text as advised (see the revised sentences “*Non-operative treatment modalities should be offered to the patient in the first instance and include patient counselling, dietary modification, stress-reduction techniques, pharmacotherapy (such as non-steroidal anti-inflammatory drugs, muscle relaxants, and intra-articular injections), and early referral to a physiotherapist for muscular massage and provision of TMJ mobilisation and stability exercises (89)*”).

Editorial Comments

Comment 1

We may suggest the authors consider deleting the words "systematically" and "systematic" from the Abstract, Introduction, and Methods since the title indicates that this is a Literature Review. Also, we suggest authors fill out and submit the "Narrative Review Checklist" attached. In the checklist, please indicate both the detailed “**Page Number, Line Number**” and “**Section and Paragraph**”.

Reply 1

We agree. Any reference to this being a systematic review have been removed from the manuscript. We have also completed the narrative review check list.

Changes in the text

Any reference to this being a systematic review have been removed from the manuscript.

Comment 2

Abstract: Please revise "Background" to "Background and Objective", "Methodology" to "Methods", "Results" to "Key Content and Findings", and "Discussion" to "Conclusion".

Reply 2

This has been revised.

Changes in the text

We have revised "Background" to "Background and Objective", "Methodology" to "Methods", "Results" to "Key Content and Findings", and "Discussion" to "Conclusion".

Comment 3

Abstract-Methods: Please specify the timeframe (e.g. "from inception until March 31, 2023") and the language for these included articles (e.g. "publications in English") in the "Abstract-Methods".

Reply 3

This has been revised.

Changes in the text

We have revised the abstract and methodology to state: “*A search was performed in the PubMed, EMBASE, Web of Science, and Cochrane databases for articles in English on otalgia from TMD from inception until March 20, 2023*”.

Comment 4

Abstract-Key Content and Findings: It may not be informative enough to state that "78 studies were finally included in this review following the screening process". Please also describe what the literature review will mainly contain and any key findings.

Reply 4

The abstract has been edited to include more information in the key content and findings.

Changes in the text

Key content and findings in the abstract now includes *"78 studies were finally included in this review following the screening process. ENT surgeons should maintain a high index of suspicion for TMD in patients presenting with otalgia to their clinics, particularly where primary ear disease is excluded. The diagnosis of TMD can be made easily using the TMD-pain screener based on the presence of otalgia modified by movement of the jaw and elicitation of familiar pain on palpation of the temporals and master muscles. Still, the ENT surgeon should consider and exclude alternative or co-existing causes of otalgia, particularly head and neck malignancy. ENT surgeons are responsible for commencing conservative management and involving a multidisciplinary care team of physiotherapists, dental practitioners, mental health professionals, and oral and maxillofacial surgeons"*.

Comment 5

Introduction: We strongly suggest the authors cite more references published in the last three years because 31% of the references (n=30) were published 20 years ago.

Reply 5

The introduction has been edited to include more recent literature. The less recent articles that remain are seminal articles with high citations whose evidence remains relevant today.

Changes in the text

The introduction has been edited to include more recent literature.

Comment 6

Results: There are some issues with the data. For example, "There were 157 articles discussing otalgia from TMD in their title of abstract" is inconsistent with your flow chart of screening, which displays 155 "Reports sought for retrieval". Also, the 674 "Reports screened" after excluding 521 reports should be 153 ($674-521=153$) instead of 155. In addition, the 674 "Reports screened" and "Incorrect outcome (n=20)" in Figure 1 are inconsistent with "676 articles remained" and "incorrect outcome (n=22)" in the main text. Please recheck the FULL text to ensure the accuracy and consistency of information.

Reply 6

Apologies. The results section has been updated to match the figure which is the most up to date and accurate information. Please note that the "incorrect outcome (n=22)" in the manuscript includes both articles excluded for this reason from the initial search and from those identified from citation lists.

Changes in the text

The results section has been modified to *"674 articles remained. There were 155 articles discussing otalgia from TMD in their title of abstract and following the removal of 20 articles where no full text was available, the remaining 135 were evaluated in depth by reading their full texts"*.

Comment 7

"The proportion of these patients reporting otalgia varies considerably in published studies with rates ranging from 3% to 100% of the total TMD population (11,17-48)". There is too much literature cited here. We understand that this may be to correspond to the "multiple studies" with very small sample sizes that follow. If available, we suggest the authors cite systematic reviews that have already reported this result; if not, we suggest citing several key studies here that are sufficient to support this claim, and then it would be clearer to cite the appropriate studies when mentioning "multiple studies with very small sample sizes" and "those studies with larger cohorts and systematic reviews synthesizing multiple cohort studies" respectively.

Reply 7

We have edited this section to cite several key studies with large sample sizes or high quality methodology that are sufficient to support the claim before citing the studies with very small sample sizes.

Changes in the text

We have edited this section to cite several key studies that are sufficient to support the claim before citing the studies with very small sample sizes.

Comment 8

We recommend including a separate section on the STRENGTHS and LIMITATIONS of this review to promote a more intellectual interpretation.

Reply 8

A section on the strengths and limitations of the review is included in the manuscript with the primary limitation being the study is not strictly a systematic review.

Changes in the text

A section on the strengths and limitations of the review is included in the manuscript at the end of the discussion section.

Comment 9

Please define all abbreviations mentioned for the first time in the text, such as "ENT" (title, abstract, and introduction). Please check the entire manuscript to address similar concerns.

Reply 9

The title, abstract, and introduction have been revised to include "Ear, Nose and Throat (ENT)" when first mentioned.

Changes in the text

The title, abstract, and introduction have been revised to include "Ear, Nose and Throat (ENT)" when first mentioned.