Peer Review File

Article information: https://dx.doi.org/10.21037/fomm-23-3

Reviewer A

Comment: I appreciate the opportunity to read the manuscript entitled "Craniofacial Management of the Anterior Open Bite". This manuscript aimed to review the literature regarding open bite. The authors brought important and adequate information, with nice images. However, open bite treatments are well established and none new information on this topic was presented. Also, I missed a proper introduction to present some general information on the topic for the readers.

Reply: We thank the reviewer for supporting our manuscript work and for thoughtful critiques. We agree that the treatment modalities for openbite treatment are well established. The purpose of this study is to provide an updated review on the effectiveness and stability of these treatments based on the latest literature. We have also focused on the orthognathic management of openbite and included treatment details for complicated craniofacial conditions. We hope this clinical review will provide reference for clinical decision making for AOB craniofacial management. We have added the introduction section as suggested.

Reviewer B

Comment: The topic is interesting for dentistry. However, the manuscript is outside the scientitic writing guidelines.

Reply: We thank the reviewers for their thoughtful critique. We have intended this manuscript to be published as a clinical review after evaluating it according to the definition for different reviews in FOMM.

Reviewer C

Comment 1: A first major concern is that this review article was not well designed and constructed as a review article. For example, no descriptions of search engines, target period, and key wards were found in the manuscript.

Reply: We thank the reviewers for their thoughtful critique. We have intended this manuscript to be published as a clinical review after evaluating it according to the definition for different reviews in FOMM.

Comment 2: A second major concern is that this review article carries biased reports. The description of the orthodontic-orthognathic surgical approach is so long, compared to those of MEAW approach, temporary anchorage implants and devices. In addition, no description of traditional multi-bracket treatment for anterior open bite could not be found: for example, multi-bracket treatment with all five or seven extraction is available and useful for the treatment of specific anterior open bite.

Reply: We thank the reviewer for the thoughtful comment. This review is focused on the craniofacial management of anterior openbite in permanent dentition and we intentionally put more emphasis on orthognathic surgical approaches as it is the most efficient and ideal treatment method for most anterior openbite cases. The nonsurgical methods We have also added the description of traditional multi-bracket treatment (please see lines 200-204).

Editorial Comments

Comment 1: Lines 79-80: "The aetiology of AOB is often multifactorial with a combination of skeletal, dental, soft tissue, and habitual/functional factors", consider changing the sentence to "The aetiology of AOB is often multifactorial with a combination of anatomical (e.g., skeletal, dental, soft tissue) and habitual/functional factors"

Reply 1: we have changed the sentence to "The aetiology of AOB is often multifactorial with a combination of anatomical (e.g., skeletal, dental, soft tissue) and habitual/functional factors". Please see lines 135-136.

Comment 2: Lines 92-95: "There are some other anatomical conditions that may be associated with anterior openbite, but are less commonly encountered. There are some other anatomical conditions that may be associated with anterior openbite, but are less commonly encountered", the sentences are repeated. Please also add the detailed information about the "other anatomical conditions".

Reply 2: we have removed the repeated sentence and have added the detailed information about the "other anatomical conditions". Please see lines 149-152.

Comment 3: Lines 110-118: The content in this paragraph seems to be associated with "genetic factors", which is not suitable in the "Functional factors" subsection. Whether it would be better to rearrange the content according to "genetic and environmental factors", i.e., "The aetiology of AOB is often multifactorial with a combination of genetic and environmental factors".

Reply 3: we have rearranged this content and combined it with the part describing "anatomical conditions". We have changed the title of this subsection to "Anatomical and Genetic factors". Please see lines 151-160.

Comment 4: Lines 122-124: "Characteristics associated with skeletal AOB include increased anterior lower face height (long face syndrome), steep mandibular plane, narrow maxilla, excessive eruption of posterior teeth, and under-erupted incisors", excessive eruption of posterior teeth, and under-erupted incisors is the characteristics associated with dental AOB not skeletal AOB.

Reply 4: we have changed the description of "excessive eruption of posterior teeth, and under-erupted incisors" to "mesial inclination of posterior teeth, and upright incisors".

Comment 5: "corrected" (Line 150), "eliminated" (Line 153). Please report key results with data.

Reply 5: we have added key results with data for "corrected" (Line 150) and "eliminated" (Line 153). Please see lines 219-221 and lines 222-224.

Comment 6: Line 180: “whereas aligner therapy demonstrated correction via maxillary and mandibular incisor extrusion (41)”, please change "aligner" to "clear aligner".

Reply 6: We have changed "aligner" to "clear aligner".

Comment 7: The Orthodontic-Orthognathic surgical approach (1) Line 214: “In moderate to severe anterior open bite patients…”, please provide the evidence support for the class division (i.e., what’s the symptom presentation of the moderate or severe anterior open bite patients).

Reply 7: we have added explanation for chose of Orthodontic-Orthognathic surgical approach in the moderate or severe anterior open bite patients. Please see lines 286-289.

Comment 8: (2) Lines 239-242: “Historically, AOB deformities often have common combined…as detailed in Table 1”, we suggest the authors adjust this content to the beginning of this subsection. Then, stating the information “For example, open bite patients with vertical…”.

Reply 8: we have adjusted this content as suggested. Please see lines 291-295.

Comment 9: Lines 327-328: “Various authors state that surgical relapse of open bite surgical correction has the greatest tendency for relapse”, consider re-writing this sentence for clarity.

Reply 9: we have re-written this sentence as “It has been recognized that surgical relapse of AOB surgical correction has the greatest tendency for relapse among all the orthognathic surgical movement” for clarity. Please see lines 400-401.

Comment 10: To further highlight the clinical value of this clinical review, we strongly recommended the authors add an independent table to present the advantages and disadvantages, how to select the most appropriate treatment for patients with different symptoms or classes, and retention and stability of the discussed approaches for AOB.

Reply 10: we have added a new table 1 to present the advantages and disadvantages of different treatment methods.

Comment 11: We recommend including a separate section on strengths and limitations of the review in the main body to promote a more intellectual interpretation.

Reply 11: we have added a separate section on strengths and limitations of this review. Please see lines 433-443.

Comment 12: Lines 359-360: "Although treatment of AOB is challenging, the stability of treatment and satisfaction of patients are relatively high". Except for "The Orthodontic-Orthognathic surgical approach", the stability of the other treatments seems to be uncertain.

Reply 12: we have re-written this sentence as “Although satisfaction of patients is relatively high, AOB treatment remains to be the challenging area in orthodontic and orthognathic craniofacial management”. Please see lines 446-447.

References

Comment 13: We suggest that the authors review the references and use more current references in the last three years (only 8 references in 2022 and 1 in 2021 or older).

Reply 13: we have reviewed and added more current references in the last three years.

Comment 14: Lots of references missing in the text - each claim and reference to previous work should be cited. For example, lines 79-80: “The aetiology of AOB is often multifactorial with … factors”; lines 122-124: “Characteristics associated with skeletal AOB include…narrow maxilla”. Please check the full text and revise accordingly.

Reply 14: we have added references in the text to provide reference for each claim.

Comment 15: Line 144: "Young Kim" should be "Kim et al.".

Reply 15: we have changed "Young Kim" to "Kim et al.".

Comment 16: Ref. 4 should be "Björk A, Skieller V. Facial development and tooth eruption. An implant study at the age of puberty. Am J Orthod. 1972 Oct;62(4):339-83."

Reply 16: we have changed the reference to "Björk A, Skieller V. Facial development and tooth eruption. An implant study at the age of puberty. Am J Orthod. 1972 Oct;62(4):339-83”. Please see reference 20.

Comment 17: More stand-alone footnotes should be provided for the figures, including the full name of any abbreviation and a separate description of each figure if it is a combination of several figures, etc.

Reply 17: we have added the full name of the abbreviations and a separate description of each figure.