Reviewer’s report

Title: Novel methodologies and technologies to assess mid-palatal suture maturation: A systematic review

Version: 0 Date: 19 Apr 2017

Reviewer: Valentin Javier Garcia

Reviewer’s report:

Comments to the Author

This is an interesting study where the authors has as objective to systematically review and evaluate what is known regarding contemporary methodologies capable of assessing midpalatal suture maturation in humans.

Nevertheless, the paper has a certain number of weaknesses, which is why I have to submit a Major-Review:

Abstract,

The conclusion is too long. You should summarise the most important conclusions.

Background,


Methods

Information Sources: you should writer a period of search, for example, you can write MEDLINE®(1980-2016), ...

Page 7, line 19: I think appendix I should be a table titled Table X. Search Strategy with Different Databases.

These databases may provide little information but it it demonstrates to the lector a enormous effort to search and studied all possible studies ...MEDLINE PubMed, Scopus - V.4
You should include ... Palate.mp. [mp = title, original title, abstract, name of substance word, subject heading word].

Page 8, line 15-18: Restrictions for language were only applied when resources for translation services were not available, Perhaps sería especificar los idiomas incluidos.

It should be included the position of patient on taking radiography as inclusion criteria to make a comparative between different expositions. It is very difficult synchronize the same axial slice and the HU can varies a lot. It would be interesting to discuss it on discussion section. There are software (aycan ossirix....) that can synchronize the same slices and garantize a good comparation.

Results,

There is too much information. Perhaps one suggestion would be to describe the main findings and dividing by sections. It is a good idea to describe the methods and results of each article, in an ordered form.

Page 10 line 20 to page 12 line 34. As has been mentioned there's too much information. This information is the results of each article and you should describe the results of a research bibliography (main results). I think this information should be use to compare the 5 articles in discussion section.

Discussion,

The discussion is generally well written but there is a comparative lack.

Midpalatal suture shouldn't be the only suture studied. During the process of a rapid maxillary expansion others circum maxillary sutures are implicated. (Ghoneima A, Abdel-Fattah E, Hartsfield J, El-Bedwehi A, Kamel A, Kula K. Effects of rapid maxillary expansion on the cranial and circummaxillary sutures. Am J Orthod Dentofacial Orthop. 2011; 140: 510-9.) It should be referenced as a limitation of the studies.

Appendix 1 should be a table. i.e. Table x. Search Strategy with Different Databases

MEDLINE PubMed, Scopus - V.4 (Elsevier). SciVerse, Web of Science (Thomson Scientific/ISI Web Services), ProQuest Health & Medical Complete (Cambridge Scientific Abstracts) (ProQuest XML), Biblioteca Cochrane Plus, Cumulative Index to Nursing and Allied Health (CINAHL) (EBSCO), Cochrane Library. These databases surely add nothing to the search but it provides documentary evidence to the lector.
Conclusion,

Perfect and the conclusions seem to me to be a very appropriate.

The authors make clear the lack of criteria when assessing the clinical data indicative of the expansion. Because of the heterogeneity of results, I believe the authors over-describe the articles. It is a very interesting article and encouraged the authors to discuss the articles included with each other. They already have enough information distributed between the results and the discussion. For my part the article was accepted.

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

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