

Reviewer #1:

Specific Comments to Authors: With the popularity of electronic products, the incidence of myopia remains high in adolescents. Rapidly progressing myopia can seriously affect the physical and mental health of children. Thus, this problem needs close attention. The authors of this study explored the mechanism of the RGP, compared the clinical effects of RGP and frame glasses against the increase of diopter in adolescent myopia. Changes in diopter and axial length were collected among 70 adolescent myopia patients (124 eyes) wearing orthokeratology for 1 year and 59 adolescent myopia patients (113 eyes) wearing frame glasses. They analyzed the mechanism of orthokeratology lens on slowing down the increase of myopic diopter by delaying the increase of ocular axis length and reducing the near hyperopia defocus. This topic is actual and well described. The manuscript is well written and very interesting, and authors presented also the limitations of the study. They concluded that amount of retinal defocus can be accurately reproduced with MRT. The orthokeratology lens reduces the amount of peripheral retinal hyperopic defocus to delay the progression of myopia. I have only a minor point to discuss. Is it possible to revise the description of all conclusions? In my opinion, it needs to be targeted, more concise and clearer. I recommend that the manuscript can be published after polishing the English. Sincerely

**Our response:** we appreciate the reviewer's positive comments and suggestions. We rearranged the structure of part-conclusion to make it clearer and more logical.

Reviewer #2:

Specific Comments to Authors: Manuscript Title: Novel application of Multispectral Refraction Topography in the observation of myopic control effect by orthokeratology lens in adolescents. 1- Title reflected the main subject of the manuscript. 2- The abstract summarized and reflect the described in the manuscript. 3- Key words reflected the focus of the manuscript. 4- The manuscript adequately described the background, presented status and significance of the study. 5- The manuscript described methods (e.g., Study design, Setting and participants, Methods and Statistical methods, etc.) in adequate detail. 6- The research objectives are achieved by the experiments used in this study. Authors explored the mechanism of the RGP. 7- The manuscript interpreted the findings adequately and appropriately, highlighting the key points concisely, clearly and logically. The study is the first to apply corneal topography technology to research the inhibition of patients' myopia growth by orthokeratology. By comparing the increases in refractive power of patients, the increase in the myopia of patients treated with different myopia treatment methods can be quantified. 8- Manuscript included 2 Tables and 6 Figures, which is sufficient and good quality. 9- The manuscript cited appropriately the latest, important and authoritative references in the introduction and discussion sections. 10- The manuscript is well, concisely and coherently organized and presented and the style is accurate and appropriated. Thank you for giving opportunity to review your study.

**Our response:** we are very grateful for the reviewer's positive comments.

Science editor:

1 Scientific quality: The manuscript describes a Case Control Study of application of MRT in myopic control by orthokeratology lens. The topic is within the scope of the WJCC. (1) Classification: Grade C, Grade B; (2) Summary of the Peer-Review Report: The study is the first to apply corneal topography technology to research the inhibition of patients' myopia growth by orthokeratology. By comparing the increases in refractive power of patients, the increase in the myopia of patients treated with different myopia treatment methods can be quantified. The questions raised by the reviewers should be answered; (3) Format: There are 6 figures and 2 tables; (4) References: A total of 33 references are cited, including 4 references published in the last 3 years; (5) Self-cited references: There are no self-cited references; and (6) References recommendations: The authors have the right to refuse to cite improper references recommended by the peer reviewer(s), especially references published by the peer reviewer(s) him/herself (themselves). If the authors find the peer reviewer(s) request for the authors to cite improper references published by him/herself (themselves), please send the peer reviewer's ID number to editorialoffice@wjgnet.com. The Editorial Office will close and remove the peer reviewer from the F6Publishing system immediately. 2 Language evaluation: Classification: Grade B, Grade B. A language editing certificate issued by Keteng Editing was provided. 3 Academic norms and rules: The authors provided Biostatistics Review Certificate, the Signed Informed Consent Form(s), and the Institutional Review Board Approval Form. No academic misconduct was found in the Bing search. 4 Supplementary comments: This is an unsolicited manuscript. No financial support was obtained for the study. The topic has not previously been published in the WJCC. 5 Issues raised: (1) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor; (2) The "Article Highlights" section is missing. Please add the "Article Highlights" section at the end of the main text; And (3) PMID and DOI numbers are missing in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout. 6 Re-Review: Not required. 7 Recommendation: Conditional acceptance.

**Our response: we appreciate the editor's suggestions. (1) We have added the original pictures as a ppt file and the original table using word. To provide figures with higher definition, we redrawn the charts with excel substituting SPSS. (2) We have written the "Article Highlights" part, with Research background, Research motivation, Research objectives, Research methods, Research results, Research conclusions, Research perspectives, 7 parts included. (3) We have added the DOI numbers (sometimes PMID) of references to the list, and supplemented authors of references. In order to better prove our point of view, we have removed 4 references:**

1 Kang P, Swarbrick H. Peripheral refraction in myopic children wearing orthokeratology and gas-permeable lenses. *Optom Vis Sci.* 2011 Apr;88(4):476-482.

2 Zhong Y, Chen Z, Xue F, Zhou J, Niu L, Zhou X. Corneal power change is predictive of myopia progression in orthokeratology. *Optom Vis Sci.* 2014 Apr;91(4):404-411

3 Anstice NS, Phillips JR. Effect of dual-focus soft contact lens wear on axial myopia progression in children. *Ophthalmology.* 2011;118(6):1152-1161. [DOI:10.1016/j.ophtha.2010.10.035]

4 B.K.P. Horn, Focusing, MIT Artificial Intelligence Laboratory, Memo No. 160, May 1968

**And added 10 new ones:**

- 1 Zhang Y, Chen Y. Effect of Orthokeratology on Axial Length Elongation in Anisomyopic Children. *Optometry and vision science: official publication of the American Academy of Optometry* 2019; 96(1): 43-47. [DOI: 10.1097/OPX.0000000000001315]
- 2 Yu LH, Jin WQ, Mao XJ, Jiang J. Effect of orthokeratology on axial length elongation in moderate myopic and fellow high myopic eyes of children. *Clinical & experimental optometry* 2021; 104(1): 22-27. [DOI: 10.1111/cxo.13067]
- 3 Hieda, O, Hiraoka T, Fujikado T, Ishiko S, Kinoshita S. Efficacy and safety of 0.01% atropine for prevention of childhood myopia in a 2-year randomized placebo-controlled study. *Japanese journal of ophthalmology* 2021; 65(3): 315–325. [DOI: 10.1007/s10384-021-00822-y]
- 4 Lau JK, Wan K, Cheung SW, Vincent SJ, Cho P. Weekly Changes in Axial Length and Choroidal Thickness in Children During and Following Orthokeratology Treatment With Different Compression Factors. *Translational vision science & technology* 2019; 8(4): 9. [DOI: 10.1167/tvst.8.4.9]
- 5 Na M, Yoo A. The effect of orthokeratology on axial length elongation in children with myopia: Contralateral comparison study. *Japanese journal of ophthalmology* 2018; 62(3): 327-334. [DOI: 10.1007/s10384-018-0573-x]
- 6 Khan F, Salahuddin S, Javidnia H. Deep Learning-Based Monocular Depth Estimation Methods-A State-of-the-Art Review. *Sensors (Basel, Switzerland)* 2020; 20(8): 2272. [DOI: 10.3390/s20082272]
- 7 Pentland AP. A New Sense for Depth of Field. *IEEE Transactions on Pattern Analysis and Machine Intelligence* 1987; PAMI-9(4): 523-531 [DOI: 10.1109/TPAMI.1987.4767940]
- 8 Kang P, Fan Y, Oh K, Trac K, Zhang F, Swarbrick H. Effect of single vision soft contact lenses on peripheral refraction. *Optometry and vision science : official publication of the American Academy of Optometry* 2012; 89(7): 1014-1021. [DOI: 10.1097/OPX.0b013e31825da339]
- 9 Lam CSY, Tang WC, Tse DY, Tang YY, To CH. Defocus Incorporated Soft Contact (DISC) lens slows myopia progression in Hong Kong Chinese schoolchildren: a 2-year randomised clinical trial. *The British journal of ophthalmology* 2014; 98(1): 40-45. [DOI: 10.1136/bjophthalmol-2013-303914]
- 10 Moore KE, Benoit JS, Berntsen DA. Spherical Soft Contact Lens Designs and Peripheral Defocus in Myopic Eyes. *Optometry and vision science : official publication of the American Academy of Optometry* 2017; 94(3): 370-379. [DOI: 10.1097/OPX.0000000000001053]

Company editor-in-chief:

I have reviewed the Peer-Review Report, full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Clinical Cases, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors.

**Our response: we thank a lot to the positive comments and are looking forward to the following publishing. If you have any questions, please contact us.**

Language polishing requirements for revised manuscripts submitted by authors who are non-native speakers of English:

**Our response: we have sent the manuscript to language-editing company to improve readability.**

Abbreviations:

**Our response: we have checked carefully the use of abbreviations in this article to ensure it to be clear.**