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Reviewer A

Comment 1: Overall, the study provides a comprehensive analysis of the evolution and trends in high myopia research over the past 20 years.

Here are some my review comments:

The methodology used to extract and analyze the literature on high myopia research is well-described. However, it would be helpful to provide more details on the search strategy and inclusion/exclusion criteria to ensure transparency and reproducibility.

Reply 1: Thank you for your advice. This has been added in the "Method" section.

Changes in the text:

Method, page 9, line 120-122:

The search terms were applied to the Title, Abstract, Author Keywords, and Keywords Plus fields.

Method, page 9, line 125-126:

The document types that were excluded are meeting abstracts, corrections, letters, news items, and editorial materials.

Comment 2: Co-citation analysis: The identification of high myopia genetics and myopic fundus lesion research as research frontiers is intriguing. It would be beneficial to provide some discussion or speculation on the potential implications and significance of these areas for future research and clinical practice.

Reply 2: Thank you for your recognition of our research work. We improved the discussion according to your suggestion.

Changes in the text:

Discussion, page 19, line 336-339:

Clinically, pathological changes in the fundus can cause irreversible damage to visual function. To prevent this, it is crucial to predict and detect its long-term progression at an early stage. By doing so, we can minimize the damage through early intervention and possibly reverse its effects.

Discussion, page 20, line 358-361:

Further deepening the research on the genes of high myopia, controlling the progression of the disease is crucial, and it also helps to improve the prognosis of systemic genetic diseases related to high myopia.

Comment 3: Limitations: It would be helpful to include a section discussing the limitations of the study, such as potential biases in the literature search or limitations in the analysis methods employed. This would provide a more balanced perspective on the findings and help readers interpret the results appropriately.

Reply 3: *Thank you for pointing this out. There was a paragraph on limitations discussed in the present manuscript. And the limitations of the analysis methods had been presented in the manuscript as below: "This study has certain limitations that are common among scientometric studies. First of all, only the SCIE database was used. Moreover, analyses using VOSviewer and CiteSpace can include only articles published in English."*

We have further stated the limitations of potential biases in the literature search according to your suggestions.

Changes in the text:

Discussion, page 21, line 380-385:

There may be a delay in updating the database, causing the omission of newly indexed articles. Literature searches at a later time would yield more data. This study's search was conducted until December 19, 2021, limiting the publication volume for 2021. However, our study covered most articles published between 2002 and 2021, so including new articles would not significantly alter our conclusions.

Comment 4:

Future directions: Including a section on future directions or recommendations for further research based on the study's findings would be valuable. This could help guide researchers and policymakers in identifying areas that require more attention and investment.

Overall, the study provides valuable insights into the trends and research landscape of high myopia over the past 20 years. Addressing the points mentioned above would further enhance the quality and impact of the research.

Reply 4: *Thank you for your suggestion. We have incorporated future directions and recommendations for further research based on our findings.*

Changes in the text:

Discussion, page 21-22, line 391-397:

It is recommended that future research endeavors persist in examining the genetics and fundus lesions associated with high myopia, as well as exploring the potential of interdisciplinary innovation at the intersection of medicine and engineering as an emergent technological trend. By building upon the findings of this investigation,

subsequent inquiries may enhance our comprehension of high myopia and contribute to the amelioration of its public health implications.

Comment 5:

Introduction:

The introduction provides a clear context by highlighting the increasing prevalence of high myopia and the need for research in the field. It effectively sets the stage for the purpose of the study.

Overall, the introduction effectively introduces the topic, justifies the need for the study, and outlines its objectives and potential implications. It provides a clear roadmap for the rest of the paper.

Reply 5: Thank you for your recognition of our work.

Comment 6: Methods:

The methods section provides a detailed description of the literature search and study selection process. It mentions the database used, the keywords employed, and the date of the search, which ensures transparency and reproducibility.

Reply 6: Thank you for your recognition of our work.

Comment 7: The data extraction and collection process is briefly mentioned, but it would be helpful to provide more information on the specific information that was extracted from the retrieved publications and how it was analyzed.

Reply 7: Thank you for your suggestion. We have included information about the data extraction and collection process in the “Data Extraction and Collection” section. Details of the data analysis had been described in the “Holistic Analysis” and “Analysis of Dynamic Changes over Time” sections separately.

Changes in the text:

Method, page 9, line 131-135:

To calculate the annual number of article publications, citations, national publications, journal publications, and author publications, we downloaded the corresponding data from the Web of Science Core Collection. We then exported the full records of the retrieved publications and their references from the Web of Science Core Collection to plain text for analysis of keywords, cited references, and subject categories.

Comment 8: The use of Microsoft Excel and GraphPad Prism for statistical analysis is appropriate and commonly used in research. However, it would be beneficial to mention the specific analyses performed using these software tools.

Reply 8: Thank you for bringing this to our attention. We have added details about the use of Microsoft Excel and GraphPad Prism in the methodology section.

Changes in the text:

Method, page 10, line 137-140:

The publication volume and predominant actors, including countries, journals, and authors, were counted with Microsoft Excel 2019 (Microsoft Corporation, Redmond, WA, USA) and visualized with GraphPad Prism version 8.3.0 (GraphPad Software, La Jolla, CA, USA).

Comment 9: The use of VOSviewer and CiteSpace for co-occurrence analysis, co-authorship analysis, and visualization of networks is appropriate and provides a comprehensive analysis of the research landscape. However, it would be helpful to provide a brief explanation of these tools for readers who may not be familiar with them.

Reply 9: We appreciate you pointing this out. We have added brief explanations about VOSviewer and CiteSpace in the methodology section.

Changes in the text:

Method, page 10, line 149-150:

VOSviewer is a software tool designed for constructing and visualizing scientometric networks.

Method, page 11, line 169-170:

CiteSpace is a Java-based application designed to visualize and analyze trends and patterns in scientific literature.

Comment 10: The presentation of results in terms of predominant actors (countries, journals, and authors) is informative and provides insights into the key contributors in the field of high myopia research.

The identification of frontiers in research topics based on co-citation analysis of cited references is valuable, as it highlights the recent and emerging areas of research in the field.

The analysis of research subject categories and the identification of burst times in specific categories provide additional information on the interdisciplinary nature of high myopia research and the evolving areas of interest.

Overall, the methods section is well-written and provides a comprehensive description of the research methodology employed. The use of appropriate tools and

analysis techniques contributes to a thorough exploration of the research landscape in the field of high myopia.

Reply 10: Thank you for your recognition of our research work.

Comment 11: Discussion:

The discussion provides a comprehensive overview of the research trends and hotspots in the field of high myopia. It effectively summarizes the findings and highlights the key areas of focus in current research.

The discussion on the shift in research focus from refractive error correction to high myopia genetics and myopic fundus lesion research demonstrates the evolving nature of the field and the ongoing pursuit of a comprehensive understanding of the topic.

The limitations of the study are appropriately acknowledged, including the use of the SCIE database and the restriction to English language articles. However, these limitations do not significantly impact the overall findings and insights provided.

The conclusion effectively summarizes the main points discussed and emphasizes the importance of interdisciplinary collaboration in advancing high myopia research.

Overall, the discussion section is well-written, provides a clear overview of the research trends, and offers valuable insights into the current state of high myopia research. No major revisions or changes are necessary.

Reply 11: Thank you for your recognition of our work.

Reviewer B

Comment 1: Background information of this study is required in the Abstract. Currently, the Background section indicates the Purpose of this study.

Reply 1: We have made the change you suggested.

Changes in the text:

Abstract, page 5, line 70-73:

Background: Research on high myopia has gradually formed a complex network of knowledge, but a panorama of evolutionary trends is lacking. By conducting a scientometric analysis, we can gain a deeper understanding of the development and evolution of this field.

Comment 2: The Main Text should include a subtitle named, Conclusions.

Reply 2: In response to your comments, we have made the appropriate modification.

Changes in the text:

Discussion, page 21, line 393:

Conclusions

Comment 3: “It also lists five **studies** that were important turning points in the knowledge structure from the scientific literature ($BC > 0.1$), with two studies in the anti-VEGF therapy cluster, two in the refractive surgery cluster, and one in the high myopia genetics cluster. Furthermore, Table 1 shows the top six most cited **studies**, five in the myopic maculopathy cluster and one in the anti-VEGF therapy cluster, representing the **studies** attracting the greatest academic interest.”

Studies were mentioned, but there are no references cited. Please add.

Reply 3: Thank you for your suggestion. We offered these studies in Table 1, with the following footnote indicating their role: "a Five significant bridging references (betweenness centrality > 0.1). b Top six most cited references of all cited references".

In response to your feedback, we have made the necessary changes to the manuscript and have labeled each study mentioned in the paragraph, except for the last one, which does not refer to a specific study.

Changes in the text:

Result, page 16, line 266-272:

It also lists five studies (15-19) that were important turning points in the knowledge structure from the scientific literature ($BC > 0.1$), with two studies (16,19) in the anti-VEGF therapy cluster, two (17,18) in the refractive surgery cluster, and one (15) in the high myopia genetics cluster. Furthermore, Table 1 shows the top six most cited studies (1,16,20-23), five (1,20-23) in the myopic maculopathy cluster and one (16) in the anti-VEGF therapy cluster, representing the studies attracting the greatest academic interest.

Comment 4: Original Article and Meta-Analysis must include Statistical Analysis in Methods Section.

Reply 4: Thank you for bringing this to our attention. We presented the Statistical Analysis section in the Methods with more specific names. Here we have changed the subtitle of the section according to your suggestions.

Changes in the text:

Method, page 10, line 140:

Statistical Analysis

Comment 5: The articles in Table 1 are suggested to be numbered as references.

Reply 5: Thank you for your suggestions. Forty articles were included in Table 1. To avoid confusing the reader by citing too many articles in the main text, we have provided a supplementary file containing all the references in Table 1.

Name of annex: Supplemental reference_AES 20230802

Comment 6: The last tick in Supplementary Figure 1A is missing the year. Please update the figure.

Reply 6: We have modified Supplementary Figure 1A

Name of annex: Supplementary Figure 1