Mesenchymal Stem Cells for Peripheral Nerve Injury and Regeneration: A Bibliometric and Visualization Study

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Abstract

Purpose: This study employed bibliometric methods to analyze the research hotspots and future development trends regarding the application of mesenchymal stem cells in peripheral nerve injury and regeneration. Methods: We screened relevant articles published between January 1, 2013, and October 1, 2023, by using the search TS=(“Mesenchymal stem cells” AND “Peripheral nerve injury”) OR TS=(“Mesenchymal stem cells” AND “Peripheral nerve regeneration”) through the Web of Science database. Subsequently, we conducted a comprehensive evaluation using visualization analysis software CitesSpace and VOSviewer from various perspectives, such as publication quantity, authors, countries, institutions, keywords, and popular research topics. Results: In this study, we extensively searched the Web of Science database and obtained 350 relevant literatures. These documents were written by 2049 collaborative authors from 41 countries, who were affiliated with 585 different research institutions. These collaborative authors published their research findings in 167 different journals and cited 21,064 literatures from 3,339 journals. Conclusion: In the past decade, the number of publications and citations related to mesenchymal stem cells in the field of peripheral nerve injury and regeneration has shown an overall increasing trend. Stem cell therapy for nerve injury has become a highly focused research field, especially mesenchymal stem cell therapy, which has enormous potential in nerve injury treatment and may provide better treatment and rehabilitation opportunities for patients, as well as making important contributions to the progress and innovation of medicine.

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