

Peer Review

Review of: "A Narrative Review on the Management of Severe COVID-19 Infection Using Stem Cell-Based Therapies with a Focus on the Registered Clinical Trials"

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This review article provides a comprehensive and well-organized narrative synthesis on the potential therapeutic role of SARS-CoV-2 infection management using stem cell-based approaches, particularly Mesenchymal Stem Cell Therapy and induced pluripotent stem cells. The manuscript successfully summarizes mechanistic pathways linking immune dysregulation, cytokine storm, and Acute Respiratory Distress Syndrome with the regenerative and immunomodulatory properties of stem cells, while also presenting an extensive compilation of registered clinical trials that strengthens translational relevance. The inclusion of multiple stem cell sources, secretome applications, and emerging organoid models adds depth and scientific value to the review. However, the article would benefit from improving methodological transparency by clearly describing literature selection criteria and incorporating a structured evidence synthesis (e.g., summarizing clinical trial outcomes, safety signals, and efficacy trends in comparative tables or meta-analytic summaries). Additionally, integrating a critical discussion on long-term safety concerns, regulatory challenges, cost-effectiveness, and post-COVID clinical applicability would significantly enhance the scientific robustness and real-world clinical impact of the manuscript.

Declarations

Potential competing interests: No potential competing interests to declare.