Journal of Multidisciplinary Healthcare

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LETTER

A Response to Article "Effectiveness of Secretome from Human Umbilical Cord Mesenchymal Stem Cells in Gel (10% SM-hUCMSC Gel) for Chronic Wounds (Diabetic and Trophic Ulcer) – Phase 2 Clinical Trial" [Letter]

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Dear editor

We have read the published article and we appreciate the authors who have reported the article about "Effectiveness of Secretome from Human Umbilical Cord Mesenchymal Stem Cells in Gel (10% SM-hUCMSC Gel) for Chronic Wounds (Diabetic and Trophic Ulcer) – Phase 2 Clinical Trial", published in the Journal of Multidisciplinary Healthcare 2023;16:1763–1777.

Mesenchymal stem cell secretomes have promising prospects to be produced as drugs for regenerative medicine. Many studies suggest that mesenchymal stem cell secretomes can be used as therapy for alopecia, acute hind limb ischemia, ischemic stroke, chronic kidney disease, and acute and chronic wound healing.[1] The research carried out by Tan ST et al reports that secretome from human umbilical stem cells can be made into a topical gel for chronic wounds (diabetic and trophic ulcers) and has been proven effective in accelerating the process for wound healing. This is can be a new innovation for secretome-based treatment for chronic wound healing.[2]

Previous research has shown that three-dimensional (3D) bioprinting has also been used to reconstruct skin through layer-by-layer deposition of cells with scaffolding materials over the wound areas.[3] Guo X et al used porcine small intestinal submucosa (SIS) as a scaffold that can mimic the extracellular matrix of skin, facilitating cell growth, organization, and functional differentiation tissues.[4] Other study has investigated the effects of MSC-CM-T in topical gel preparation in accelerating optimal wound healing through analyzing PDGF levels, wound closure rate percentages, and fibroblast density appearances.[5] This can be used as a reference for Tan ST et al[2] research in addition to using gel as a scaffold material for cell growth in topical gel preparations.

This study directly determines the level of secretome used for topical gel preparation without providing some clear reasons. Meanwhile, in our opinion, it is also necessary to mention the characteristics of UCMSCs as a source of SH-hUCMSCs according to the International Society of Stem Cell Therapy/ISCT, and compare several levels of SM-hUCMSC used in this gel formulation so that it can be known which level can produce the best treatment in terms of quality, speed or time, and accuracy for healing diabetic chronic wounds and trophic ulcers in the future.

Disclosure

The authors report no conflicts of itnerest in this communication.

Received: 25 October 2023
Accepted: 10 November 2023
Published: 21 November 2023

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https://doi.org/10.2147/JMDH.S446608