Stem Cells and Cloning: Advances and Applications

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LETTER

A Response to Article "Do Mesenchymal Stem Cells Influence Keloid Recurrence?" [Letter]

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Dear editor

We thank the authors for publishing their findings "Do Mesenchymal Stem Cells Influence Keloid Recurrence?" in *Stem Cells and Cloning: Advances and Applications* 2022:15, 77–84.[1] This is very important information about correlation between keloid and normal skin with Mesenchymal Stem Cells (MSCs) counts, proportions, and recurrence. We would like to discuss our opinions on the characterization method of MSCs and keloid in this study.

We appreciate the author's use of hematopoietic and endothelial markers (CD45, CD34, CD14, CD31, and VWF) and stemness markers of MSCs, such as CD73, CD90, CD44, CD29, and CD105, to describe MSCs culture. Unfortunately, no information about the characterization of MSCs with flow cytometry analysis and differentiation ability was provided in the results of this study.

According to The International Society for Cellular Therapy, MSCs are defined by three criteria. MSCs must first adhere to tissue culture flasks. Second, by flow cytometry, MSCs must express CD105, CD73, and CD90 while lacking expression of CD45, CD34, CD14, or CD11b, CD79a, or CD19, and HLA class II. The third prerequisite is that the cells can differentiate into chondrocytes, adipocytes, and osteoblasts.[2] These three conditions must be met in order to designate cells as MSCs.

In addition to that, we do not find any histopathological analysis. The previous study reported that to examine the influence of human keloid-derived mesenchymal stem cells (KD-MSCs) on cell proliferation, collagen synthesis, and expressions of integrin αvβ3, the clinical appearance, anatomical location, and history of the keloid were used to make the diagnosis.[3] It is better if this study also analyzes histopathology of human keloid and normal skin tissue samples while paying close attention to the ethical aspect and informed consent from the patients. It is also necessary to distinguish the marker analysis between fibroblasts and MSCs. According to Kundrotas,[4] CD10, CD26, CD106, CD146, and ITGA11 may be useful in distinguishing MSCs from fibroblasts.

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Author Contributions

All authors contributed to data analysis, drafting or revising the article, have agreed on the journal to which the article will be submitted, gave final approval of the version to be published, and agree to be accountable for all aspects of the work.

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