Letter to Editor

Human adipose derived stem cell from white or brown fat; which one work better?

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Dear Editor:

Mesenchymal stem cells (MSCs) are interested to more than other cells and human adipose derived stem cells (hADSCs) more than other types of MSCs due to pluripotency, secretion of different growth factors, high angiogenic factor secretion, high immunity, and fewer ethical problems during In vitro, pre-clinical and clinical studies (1-12) .

In the field of regenerative rehabilitation, one of the main goals of the scientists always has been to achieve the best and most efficient type of stem cell. Choosing the appropriate source for extracting these cells is undoubtedly important in achieving the best and most efficient cell.

Because fatty tissue in humans is two types of white and brown, the basic question is: hADSCs are extracted from which fat types have the most effective therapeutic action in repair of different tissues? Because fatty brown tissue is metabolically more active than white adipose tissue (13) it may that stem cells extracted from fatty brown tissue are also likely to be more active. The rejection or confirmation of this hypothesis surely is not possible without performimg of in vitro studies to compare the stem cells extracted from brown and white adipose tissue. If this comparison is done, the results of it are a very important point in the extraction and processing of hADSCs. Therefore, it is recommended to design and conduct exact studies to compare stem cells extracted from brown and white adipose tissue.

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