Name of journal: World Journal of Stem Cells

Manuscript NO: 76905

Title: A Short Review of Therapeutic Applications of Adipose-derived Stromal Vascular Fractions in Osteoarthritis

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 05395420

Position: Editorial Board

Academic degree: MS, PhD

Professional title: Assistant Professor

Reviewer’s Country/Territory: India

Author’s Country/Territory: China

Manuscript submission date: 2022-04-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-05-20 03:33

Reviewer performed review: 2022-05-20 03:46

Review time: 1 Hour

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SPECIFIC COMMENTS TO AUTHORS
Dear authors  I commend you for your work on exploring the utility of SVF in the treatment of OA I have some serious queries which prevent me from considering the work for publication When we look into the available literature on the use of SVF for OA we have abundant literature on the same subject and i do not find any distinct discussion or different perspective that is being communicated to the community through this article. Moreover i find this article to be of review nature but authors claim it to be original research which I could not accept.
PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 76905

Title: A Short Review of Therapeutic Applications of Adipose-derived Stromal Vascular Fractions in Osteoarthritis

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 03676315

Position: Peer Reviewer

Academic degree: MD

Professional title: Associate Professor

Reviewer’s Country/Territory: Germany

Author’s Country/Territory: China

Manuscript submission date: 2022-04-06

Reviewer chosen by: Dong-Mei Wang

Reviewer accepted review: 2022-05-25 05:11

Reviewer performed review: 2022-05-25 15:17

Review time: 10 Hours

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SPECIFIC COMMENTS TO AUTHORS
Dear authors, thanks for submitting your manuscript. It describes the background and stem cell therapy potential of osteoarthritis. Some parts of the manuscript need some major revision to make the manuscript ready for publication. Title: ok Abstract: ok Keywords: words used in the title should not be part of the keywords (e.g. osteoarthritis) The "Pathogenesis" part should mention praearthritic deformities. Severe valgus or varus malalignment leads to lateral or medial gonarthrosis. It should further be discussed that frontal malalignment needs to be appreciated and addressed by correction osteotomy when developing a concise treatment plan. The best stem cells alone cannot prevent arthritis in severe malalignment. Also, in the manuscript the role of stem cells in post traumatic arthritis should be discussed. At the end of the discussion, please give a conclusion of your work. The conclusion paragraph should be identified by a common wording like: "In conclusion..." e.g. References: Some references about secondary arthritis should be added and discussed
**Name of journal:** World Journal of Stem Cells  
**Manuscript NO:** 76905  
**Title:** A Short Review of Therapeutic Applications of Adipose-derived Stromal Vascular Fractions in Osteoarthritis  
**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed  
**Peer-review model:** Single blind  
**Reviewer’s code:** 04480049  
**Position:** Editorial Board  
**Academic degree:** MD, PhD  
**Professional title:** Associate Professor, Consultant Physician-Scientist, Staff Physician  
**Reviewer’s Country/Territory:** Bulgaria  
**Author’s Country/Territory:** China  
**Manuscript submission date:** 2022-04-06  
**Reviewer chosen by:** AI Technique  
**Reviewer accepted review:** 2022-05-19 08:30  
**Reviewer performed review:** 2022-05-26 11:10  
**Review time:** 7 Days and 2 Hours

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SPECIFIC COMMENTS TO AUTHORS
Overall: The present manuscript is a well written and detailed review focusing on therapeutic applications of adipose-derived stromal vascular fractions. This is a very timely review of a "hot" topic. Abstract: Please fix the definition of osteoarthritis in the abstract. The contemporary concept of osteoarthritis now assumes the disease as a highly heterogeneous disorder characterized by progressive cartilage loss, remodeling of adjacent bones and concomitant low-grade inflammation (PMID: 30911813). Keywords should be preferably selected from the MeSH browser. Minor comments: Introduction: Please, fix those expressions: 1. “OA is a complete joint disease” – OA is considered a whole joint disease. 2. “This disease not only causes” – This disease does not only cause... 3. Economic burden is usually brought to society and not only to the patients. 4. “It is worth noting that, for different genders, the prevalence of OA in females is higher than in males” – “for different genders” is abundant. The introduction should ideally end with the aim of the present manuscript. If it is a review please describe the purpose of this review in addition to its justification. Please discuss further intraarticular injections as a part of a multimodal approach to the osteoarthritic joint. Since you agree that OA is a whole-joint disease, an urge has arisen for the implementation of intraarticular injections in a whole joint approach for the management of KOA (PMID: 32803403) Minor English check may be beneficial.
PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 76905

Title: A Short Review of Therapeutic Applications of Adipose-derived Stromal Vascular Fractions in Osteoarthritis

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 05439875

Position: Editorial Board

Academic degree: MD

Professional title: Assistant Professor

Reviewer’s Country/Territory: Italy

Author’s Country/Territory: China

Manuscript submission date: 2022-04-06

Reviewer chosen by: Dong-Mei Wang

Reviewer accepted review: 2022-05-26 07:50

Reviewer performed review: 2022-05-26 12:39

Review time: 4 Hours

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SPECIFIC COMMENTS TO AUTHORS
Dear authors, you performed a review about the available treatment for osteoarthritis, focusing on Adipose-derived Stromal Vascular Fractions. The review is of interest for physician who manage patients with OA. However, the information reported are sometimes vague and not supported by appropriate references. Please address the issue reported below:

• “The primary method of diagnosing OA is imaging examination, which mainly includes X-rays, computed tomography (CT), MRI, ultrasonography, and arthroscopy. X-ray examination is one of the preferred methods for the clinical diagnosis of OA”, please support these information with references such as guidelines or consensus
• Please, discriminate about the different therapeutic approaches considering the stage of the disease
• “According to the International Cartilage Regeneration & Joint Preservation Society (ICRS), exercise is the most effective way to treat OA, as it can reduce joint pain and stiffness. Furthermore, losing weight is also one of the important ways to improve OA.”, please report appropriate reference
10.3390/ijms22052693. PMID: 33799992; PMCID: PMC7962069.
Name of journal: World Journal of Stem Cells

Manuscript NO: 76905

Title: A Short Review of Therapeutic Applications of Adipose-derived Stromal Vascular Fractions in Osteoarthritis

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 02708249

Position: Editorial Board

Academic degree: PhD

Professional title: Full Professor

Reviewer’s Country/Territory: France

Author’s Country/Territory: China

Manuscript submission date: 2022-04-06

Reviewer chosen by: Dong-Mei Wang

Reviewer accepted review: 2022-05-27 16:08

Reviewer performed review: 2022-06-07 11:40

Review time: 10 Days and 19 Hours

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| Re-review          | [ Y] Yes | [ ] No |
SPECIFIC COMMENTS TO AUTHORS
This paper reviews with pathogenesis, diagnosis, and current clinical treatments for OA. The paper is well written. The paper contains minor typos that should be fixed. As the content of the paper relates more to existing studies and techniques for OA treatment, the title is not appropriate. A title such as the following or another would be more appropriate: - A Short Review of Therapeutic Applications of Adipose-derived Stromal Vascular Fractions in Osteoarthritis - Therapeutic Applications of Adipose-derived Stromal Vascular Fractions in Osteoarthritis: A Short Review

In Section Discussion, the following sentence is incomplete: “As a result, it is critical for the early diagnosis and treatment of OA”
RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Stem Cells
Manuscript NO: 76905
Title: A Short Review of Therapeutic Applications of Adipose-derived Stromal Vascular Fractions in Osteoarthritis

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed
Peer-review model: Single blind
Reviewer’s code: 05395420
Position: Editorial Board
Academic degree: MS, PhD
Professional title: Assistant Professor
Reviewer’s Country/Territory: India
Author’s Country/Territory: China
Manuscript submission date: 2022-04-06
Reviewer chosen by: Ze-Mao Gong
Reviewer accepted review: 2022-07-19 13:29
Reviewer performed review: 2022-07-19 13:54
Review time: 1 Hour

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SPECIFIC COMMENTS TO AUTHORS
Expand NCT in the Table 1 footer Consequences to be changed in table 2 heading to results In the discussion also comment on the benefit of using AD-based SVF compared to BM-MSCs as AD-MSCs are found to be superior as shown in https://doi.org/10.1177%2F1947603520951623 Comment and ease of its extraction and its regulations in processing which limit their earlier clinical translation