

**A systematic review for bone marrow stimulation for osteochondral lesion
of talus- Evaluation for level and quality of clinical studies -**

Manuscript NO 33239

Thank you for inviting us to submit a revised version of our manuscript. The comments and suggestions of the reviewers were very much appreciated. We have listed the comments below, followed by the manner in which we have addressed them.

Reviewer 2;

This is a timely, objective, well-written, well-conducted systematic review of a topic relevant to the field of orthopaedics. Like many papers in the field, it preferentially focuses on the clinical literature rather than on basic science aspects. As a result, it tells very little of the underlying mechanisms and intrinsic limitations of the bone marrow stimulation technique, and its usefulness depends essentially on the the critical appraisal of the literature on a particular clinical application. I would advise the authors to address the limitations of this approach in the introductory section or in the discussion, so as to make clear to the readers that it is not only limited by the quality of the existing clinical studies guiding its practical use, but is also limited by biological factors. Comprehensive discussions of these issues are to be found in recent publications (J Orthop Surg Res. 2017;12, 39. Goldberg A, Mitchell K, Soans J, Kim L, Zaidi R. The use of mesenchymal stem cells for cartilage repair and regeneration: a systematic review). The underlying biological aspects were previously discussed in a thoughtful review (Injury.2008;39 Suppl 1:S26-31 Steinwachs MR, Gugli T, Kreuz PC. Marrow stimulation techniques.). I suggest to refer to either, or both, in the introductory section of the paper.

Response;

We thank the reviewers for their comment. We have addressed these biological limitations in the discussion and referenced these two studies.

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Response to Editor's Comments:

1. The postcode was noted for all institutions except The Royal College of Surgeons in Ireland and Rizzoli Orthopaedic Institute, as those countries do not have a postcode.
2. Biostatistics statement amended and signed PDF attached.
3. Datasharing statement amended and signed PDF attached.
4. The abstract was amended
5. All citations have been changed to square brackets and superscript.
6. Comments have been added at the bottom