PEER-REVIEW REPORT

Name of journal: World Journal of Meta-Analysis

Manuscript NO: 60097

Title: Biofat grafts as an Orthobiologic Tool in Osteoarthritis – An Update and Classification Proposal

Reviewer's code: 02728252

Position: Editorial Board

Academic degree: PhD

Professional title: Professor

Reviewer's Country/Territory: Egypt

Author's Country/Territory: Brazil

Manuscript submission date: 2020-10-14

Reviewer chosen by: Jia-Ping Yan

Reviewer accepted review: 2020-10-30 16:51

Reviewer performed review: 2020-11-03 11:53

Review time: 3 Days and 19 Hours

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[ ] Yes [Y] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This narrative review has attempted to specify a classification proposal for biofat grafts used as an orthobiologic tool in osteoarthritis. The authors concluded that HGSC (harvesting techniques, graft type, spine or the number of centrifugations, cellular characterization) classification provides a valuable contribution to the understanding of clinical procedures and research results and ultimately ushering in a standardization of optimal practice. The manuscript is reasonably well written, although grammatical errors are frequently found in the text. Figure 3 should be provided with greater creativity as it represents the pivotal outcome from this review.

PEER-REVIEW REPORT

Name of journal: World Journal of Meta-Analysis

Manuscript NO: 60097

Title: Biofat grafts as an Orthobiologic Tool in Osteoarthritis – An Update and Classification Proposal

Reviewer's code: 03550310

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Academic Research, Associate Professor, Executive Vice President

Reviewer's Country/Territory: Egypt

Author's Country/Territory: Brazil

Manuscript submission date: 2020-10-14

Reviewer chosen by: Le Zhang

Reviewer accepted review: 2020-11-25 10:53

Reviewer performed review: 2020-11-30 09:58

Review time: 4 Days and 23 Hours

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [Y] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

A great improvement should be done by the authors to make this manuscript eligible for publication. The review tackled the different techniques encountered for the use of biofat grafts regarding the harvesting , isolation and characterization techniques of adipose tissue for the use in regenerative medicine specifically in the treatment of Osteoarthritis. Comments to the Authors;   1-"Biofat grafts as an Orthobiologic Tool in Osteoarthritis".The review title doesnot reflect with the main subject of the manuscript , authors did not review the use of different biofat grafts on the out come of the disease, instead it was all about the technique of the biograft preparation with a suggested classification that can be used if applied in the treatment of any disease . The manuscript is rather entitled as Different techniques for biograft and classification system proposal. Or authors should include   the different outcomes with the use of different biografts (according to the classification they are proposing) reported by the previous conducted studies.   2-The classification is a good initiative but yet deficient, for example(H), for harvesting or liposuction technique, the authors classified it to three subtypes yet other types of liposuction exist as the Suction assisted liposuction which is the default oldest type same as tumescent but without the add of lidocaine and epinephrine. In addition to the smart lipo the newest using double laser. 3- Another confounding factor that affect the quality of lipoaspirate and coincide with technique is the used cannula size whenever used thus this point has to be added somehow in the classification proposed for liposuction outcome and evaluation.   4-The authors mentioned that the site of liposuction does not affect the MSCs yield and viability depending on one reference at 2006, yet the site in many recent studies proved to have a great impact!!. This part has to be carefully revised and updated, it is recommended to include the site of liposuction in the suggested classification.   5- The authors mentioned that "The idea of this

classification is that for each type of fat products used, the increase of the number indicates an improvement in the characterization and complexity of the evaluation of this biological product" Indicating that the increase in number means an improvement in the characterization makes it look like a quantitative scoring system while it is not! MSC phenotyping and differentiation, both are equivalent in characterizing the cells regarding the power of characterization. This can't be applied on other classification items as for example the best harvesting technique in regard of cell viability is not yet determined so scoring of improvement with increasing the number of subgroup is not a consistent one. Authors should stick to the purpose of classification as a descriptive one rather than evaluation, this after including missing groups and subgroups in some items as mentioned before. 6- The discussion is so superficial not showing the author's opinion that should be based on the different used biografts in the treatment of OA but instead they discussed the effect of SVF or MSCs on OA which is not the purpose of this review. Readers should get a better understanding on which technique regarding the harvesting , method of isolation ,characterization used in the conducted studies in the treatment of OA.   7- Spelling and grammar mistakes should be checked carefully.