



Invited Response on: “Several Opinions on Effects of Insulin, Metoprolol and Deferoxamine on Fat Graft”

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Sir,

We have received the letter entitled “Several Opinions on Effects of Insulin, Metoprolol and Deferoxamine on Fat Graft”. They have concerns that using drugs in experimental groups in a single rat may cause systemic effects which would affect the groups, and also they have stated there would be a larger contact area between the grafts and the drug if the grafts were dissected into small pieces rather than as one piece and the results might be different [1]. Thank you to the authors for their attention on our manuscript.

Designing multiple experimental groups on one rat has advantages as well as disadvantages. The variables such as genetic, epigenetic, hemodynamic of rats, infection, inflammation, nutrition even emotion of rat can change the results. For example, any alteration in the parameters of perfusion or circulation of one rat would affect the same outcome for all groups. Thus, designing the experimental groups on one rat can at least control the variables that we cannot control if we design groups on different rats. In addition, the study groups would be more homogeneous and reliable. Moreover, the second advantage is reducing

the animal numbers in our study. Total rat numbers would be 60 if we have designed 20 rats for each group. On the other hand, we agree with the authors that using multiple operations on one rat can lead to the possibility of an inaccurate outcome. If we assume drugs have a systemic effect on the groups, then we should have seen the same results that we found in the drug-related groups in our control group, but we did not see [2].

The main aim of our study was to investigate whether these drugs have an effect on graft viability. The methods that we chose for this study were used in previous similar articles [3, 4], and we tried to mimic the same methods with more specific evaluation methods (immunohistochemically staining with perilipin for showing the viability of mature adipocyte, CD34 for the stem cells and CD31 for the angiogenesis) to compare and discuss the results. That's why we chose to use one-piece fat graft not as multiple pieces.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflicts of interest to disclose.

Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.

Informed Consent For this type of study, informed consent is not required.

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