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Correspondence

Letter to the editor: The sole and combined effect of simvastatin and platelet rich fibrin as a filling material in induced bone defect in tibia of albino rats

Dear Editor,

We read with interest the recent article entitled "The sole and combined effect of simvastatin and platelet rich fibrin as a filling material in induced bone defect in tibia of albino rats" by Raafat SN et al. in the journal [1]. In this study, the authors compared the regenerative effect of platelet-rich fibrin (PRF) and simvastatin as a filling material to induce bone healing. They did a great job in the experimental design and result assessment. But their preparation method of PRF may be controversial.

PRF is an autologous blood product. Although the abundant various cytokines are what directly play roles, PRF also contains a great amount of platelets and leucocytes, hence it can also be called as leucocyte-plate-rich fibrin [2,3]. Those cellular components within PRF are immunogenic. Therefore, most experimental researches used big animals such as rabbits because they can provide enough blood for autologous PRF preparation [4] or nude mice that can receive allogeneic or xenogeneic grafts as they mount no rejection response [5].

In this study, PRF was prepared from human venous blood, and then applied alone or combined with simvastatin to fill the tibial defects in adult albino rats. That is to say, xenogeneic PRF that contained abundant leucocytes, platelets and other various antigenic factors was applied in the experiment animals. In our opinion, the immunologically intact albino rats may not tolerate those antigenic and immunogenic factors within their body. We concern that the local application of PRF like this may trigger inflammation and rejection response instead of promoting bone healing.

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