Reviewer's report

Title: A Comparison of Balloon Injured Models for Endovascular Fibre based Techniques to Prevent Restenosis

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Reviewer: Dr PR Caramori

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

1. Title: The title is a little confusing and does not illustrate what was performed in the study. As a suggestion, it could be replaced for a Comparison of Balloon Injury Models of Endovascular Lesion in Rats.

2. Abstract: LLL (line 7) is not defined as lumen diameter pre minus post BI, but rather as lumen diameter at follow-up (16 weeks) minus lumen diameter post intervention (baseline).

3. Abstract: The conclusions are not in the manuscript body and differ from the Final Conclusions of the paper.

4. Introduction: The second sentence starting as It has been established.....aE is not clear and should be reworded.

5. The authors state that BI of the CCA is the most widely applied model and the gold standard of intimal hyperplasia. Those statements should temper or better justified. They are apparently not in accordance with the literature were the most widely accepted models of restenosis are performed in
rabbits and pigs.

6. LLL is defined MLD at 0 weeks minus LLL at 16 weeks. It should be clarified that it was used two different animals to calculate the LLL. Although the authors use a correction factor, this is at least a potential study limitation because biologically the animals may differ quite considerably from each other. In addition, the authors should report how the correction was performed.

7. The methods and results of the vasa vasora measurements should be reported (pg 9).

8. The authors should comment on the following potential study limitation: using a single size balloon the perform injury in arteries of different diameter could produce substantially different degrees of arterial damage and hamper any meaningful comparison among groups;

9. The authors concluded (pg 12) that aEoeCCA and CIA are representative models of LLL in contrast to AA after BlaEaE and CIA may fit better fit better ... than CCAaE. However, in the Results section they also report that LLL in CCA was significantly higher than in CIA (and in AA), whereas the difference between CIA and AA was not significant at 16 weeks. Therefore, the findings of the study do not apparently provide support for the above mentioned conclusions.

10. Table 1: The names of the columns are confusing: aEoeCCA SEM AA SEM aEaE and should be corrected.

11. Figure 1: could be excluded

12. Figures 3, 4, 6 and 7. The use of bars diagrams, comparing the 3 groups at each time period, would be more appropriated.

Competing interests:

None declared.