Reviewer's report

Title: Establishment and identification of rabbit model of peritoneal carcinomatosis from gastric cancer

Version: 1 Date: 19 July 2009

Reviewer: Andrea McCart

Reviewer's report:

"Establishment and identification of rabbit model of peritoneal carcinomatosis from gastric cancer" by Mei et al is an important paper that will be of interest to those with an interest in large animal models of cancer and those with a research interest specifically in peritoneal carcinomatosis.

The authors present the development of a rabbit model of peritoneal carcinomatosis from gastric cancer. 3 methods of tumour transplanation are described and compared.

Overall an interesting study that I feel should be published - following appropriate revision.

Major revisions:

1. More technical details needed about the surgery. For example how was the stomach exposed?, how did they ensure they were in the submucosal layer?

2. Results. Should discuss reason for death in 3 rabbits.

3. It is not stated when or how animals are euthanised, or criteria for doing so early.

4. CT scans are performed weekly in weeks 1 to 4, but not clear if this is on all animals or select animals?. Are animals also euthanised at this time. Figure 2 shows an animals gastric tumour at week 2 but no mention of animals being euthanised or reoperated at this time point.

5. Description of tumour characteristics (page 6) should refer to which group the animals were in, differences seen between groups.

6. Histopathological characteristics: is this 2 animals per group? or just 2 animals from group 1. if only group 1 why not other groups? what were differences seen between groups?

7. It would be very helpful to have a table characterizing the differences between groups such as: ct results, histopathology, tumour distribution etc.

8. In discussion, again authors need to differentiate between their groups. Which was the most like gastric cancer with peritoneal deposits? Was one method more
aggressive that the others? Why did group c only have a 58% success rate? Need to discuss the limitations of this model as well ie squamous cell cancer histology may differ from adeno ca.

9. Conclusion: "A rabbit model of gastric cancer with PC has been established". Which group or groups does this refer to?

Minor essential revisions:

10. While the manuscript is very understandable it needs a thorough editing for grammatical mistakes. It should be sent to an english speaking person for review. (Too many to list here)

11. Needs a reference for and description of the rabit VX2 model which is actually a transplantable rabbit squamous cell cancer.(this is referenced in discussion, should be moved up to methods section).

12. the description of the three groups in the methods does not match the description given in the abstract. In the abstract it stated 6 animals per group received a cell suspension and 6 received tissue But in the methods only group B received tissue. This needs to be completely clarified.

13. statistical analysis describes nude mice. this should be clarified.

14. Figures:
1. is this all groups. are they all the same?
2. which group is this from?
3,4,5: please add group and time from tumour injection?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.