

ANSWERING REVIEWERS

Dear Editor,

Please find enclosed the edited manuscript in word format (file name: 25933-Review.doc).

Title: Antibiotic-loaded phosphatidylcholine inhibits staphylococcal bone infection

Author: Jessica Amber Jennings, Karen E Beenken, Robert A Skinner, Daniel G Meeker, Mark S Smeltzer, Warren O Haggard, Karen S Troxel

Name of Journal: *World Journal of Orthopedics*

ESPS Manuscript NO: 25933

The manuscript has been improved according to the suggestions of reviewers:

Reviewer's code: 02691028

Comments to authors: Interesting paper.

Response: Thank you for your interest in this research.

Reviewer's code: 02710967

Comments to authors: This is a basic science study with a useful clinical application. Change manuscript type from basic study to basic science. The authors need to add a paragraph regarding the limitation of this study at the end of the discussion.

Response to reviewers: WJO only has a category for basic study, which is why we chose this designation.

We have moved our limitations paragraph from the second in the discussion section to the one preceding the conclusion, mentioning small number, shortened duration, etc.

Reviewer's code: 02691156

Comments to authors: The submitted manuscript, entitled "Antibiotic-loaded Phosphatidylcholine Inhibits Staphylococcal Bone Infection" is investigating whether antibiotic-loaded coatings could successfully prevent infection in a contaminated orthopaedic model? The Title: is referring directly to the problem at hand. Abstract: is sufficient and so is Introduction. Material and Methods: Animal model: The intramedullary placement of the implant, does not contribute to the stability of the osteotomised bone segment, and that probably is in favor of infection, although the time pass from the contamination is only one week. Statistical analysis: The number of animals, used in the study, is rather small for deduction of reliable statistical conclusions. Results: animals with uncoated implants were noted to have

characteristics indicative of inflammation, compared to those with implants coated with vancomycin-loaded phosphatidylcholine. Discussion: is sufficient and the authors of present study emphasize that “this study demonstrates significant reduction in contamination and progression of disease, though some bacteria were recovered from the cortical bone and observed in the Gram stains”. In conclusion: The authors conclude that “these easily-applied coatings can be used at the time of surgery to prevent orthopaedic infection and improve patient outcomes”. Limitation of the study: a. the small number of the animals used in the study and b. the stability following reduction of the osteotomized bone segment. Figures: 4 figures are also included. References: 49 published papers are included in the study.

Response to reviewer: Thank you for your thoughtful review of the article. We have added the limitation of the small number of animals as well as the stability of the osteotomized bone in the discussion of limitations and conclusions.