

Response to Reviewers:

Quanjun Cui, MD
Editor-in-Chief
World Journal of Orthopedics

Name of Journal: World Journal of Orthopedics

Manuscript NO.: 35800

Column: Systematic Review

Title: Antibiotic Bone Cement's Effect on Infection Rates in Primary and Revision TKAs

Authors: Donald J Kleppel, Jacob Stirton, Jiayong Liu and Nabil A Ebraheim

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First Decision: 2017-09-04

Dear Reviewers and Editors:

We are thankful to all reviewers and editors for a very insightful review of our study. We appreciate your efforts and time spent to improve our current study. Below are our changes and answers to the reviewers' questions and concerns.

1st Reviewer Name: Anonymous

Review Time: 2017-08-11 15:24

Comments to Authors:

This paper summarizes the results of randomized controlled trials/studies (RCTs) pertaining to the field of antibiotic impregnated bone cement (AIBC) vs. non-AIBC groups in both primary and revision total knee arthroplasty (TKA) procedures. It has been found that AIBC did not have a significant effect on primary TKA infection rates, but it did have a significant effect on revision TKA infection rates. This paper summarizes the results of randomized controlled trials/studies (RCTs) pertaining to the field of antibiotic impregnated bone cement (AIBC) vs. non-AIBC groups in both primary and revision total knee arthroplasty (TKA) procedures. It has been found that AIBC did not have a significant effect on primary TKA infection rates, but it did have a significant effect on revision TKA infection rates. Although there are some systematic review papers that evaluate the effect of AIBC on primary TKA, there is no systematic review paper about the effect of AIBC on revised TKA. This paper does present some useful clinical information about AIBC. The method of this review was appropriate and the conclusions of this study are supported by the results. One suggestion is to please use other sources besides Pubmed to check if there are any more RCT papers that compare the effects of AIBC vs. non-AIBC groups in revision TKA procedures.

Classification: Grade C (Good)

Language Evaluation: Grade A: priority publishing

Conclusion: Accept

Action and Response to Reviewer #1:

Thank you for your input and comments. As noted in our article and as you have stated in your comments, there were a limited number of studies available for revision TKA procedures meeting our search criteria. Early in our search process, multiple sources outside of PubMed were considered and evaluated. However, we did not find additional relevant articles with significance to our topic that met standards for our inclusion and exclusion criteria. With that said, some of the articles found through our "hand-search" were discovered in the citations of PubMed articles, but were actually from outside sources. Even though there were a limited number of articles found outside PubMed, we successfully included a few articles found through this hand-search. We mention in our discussion that there was a lack of studies on revision TKA procedures. This further emphasizes the lack of information available on this topic; a trend we

hope to see improve in the future so that studies like ours are able to evaluate more clinically relevant data in the field.

2nd Reviewer Name: Anonymous

Review Time: 2017-08-21 02:11

Comments to Authors:

Dear Authors, Thanks for your efforts. I would like to suggest some minor changes. Abstract: Aim: Please expand the abbreviation AIBC in first sentence where it is used for the first time. Methods: Exclusion criteria no 2: articles that did not separate total -HIT- (change this word to HIP) Introduction: Third paragraph you cite an article comparing KSS in cases with AIBC and cementless... This is not relevant. Here the functional outcome is more related to presence or absence of cement, not the antibiotic. Discussion: Please note that only article in which revision TKA was performed due to infections included total of 6 patients. Comment on how would the results be influenced if there were more patients...

Classification: Grade C (Good)

Language Evaluation: Grade A: priority publishing

Conclusion: Minor revision

Action and Response to Reviewer #2:

Thank you for your thoughts and suggestions. In order to enhance clarity, we have expanded the abbreviation "AIBC" in the first sentence of our abstract where it is used for the first time upon your suggestion. We have also corrected the spelling error of "HIT" in our methods section to "HIP". In the third paragraph of our introduction we looked further into the source and agree that it is not relevant enough to our topic to be included. We removed that source's statement from our paper. In our discussion, we added the fact that there were a limited number of patients evaluated in the revision TKA groups. With this, we also wrote an additional paragraph with speculations on how the results would be influenced if this group were larger. The low number of patients in the revision TKA group was also noted as a drawback to our study in the limitations section.

We appreciate the reviewers' and editors' time and effort for improving our paper. If there are any more questions, we would be happy to answer them.

Sincerely,

Authors