Author's response to reviews

Title: Biomechanical Comparison of Lumbar Spine Instability between Laminectomy and Bilateral Laminotomy for Spinal Stenosis Syndrome- An Experimental Study in Porcine Model

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Dear Editor-in-Chief,

Thank you for your letter on Dec. 20, 2007.

We appreciate very much your editorial work on our manuscript. It is a great pleasure for us to revise it in accordance with the concerns and comments. Certain changes and modifications have been made and marked in bold type in the revised manuscript. We wish this revised version would meet the criteria for publication.

The following statements are the authors’ response to the concerns the Reviewers have mentioned in the letter.

Response for reviewer #1:

Thank you for your review work. We have listed our responses to your comments and suggestions as follows:

Major Compulsory Revisions:
We are aware that human cadaveric spines will be more clinical relevance instead of porcine spine. Unfortunately, we do not access human cadaveric spine in our hospital. Although physiological structures such as spinal alignment, number of lumbar segments of the porcine spines are somewhat different from those of human cadaveric spines, however, animal spines are the most convenient choice to perform the experiment with long spinal segments on circumstance that human cadaveric spines can not be accessed.

This point had been incorporated into the limitations/discussion in the revised manuscript. (Page 13)

Minor Essential Revisions:
As the reviewer’s suggestion, six tests for each specimen were more clearly described in the revised manuscript. (Page 7)
Response for reviewer #2:

Thank you for your review work. We have listed our response to your comments and suggestions as follows:

We are aware that, unlike a constant bending moment across the spinal levels performed by Smith et al, our model uses an eccentrically applied compressive force to spinal segments, which results in a different load state at each spinal level, and this is not the actual physiological situation as described in Kostuik and Smith. Although the loading mode does not necessarily represent the actual physiological loading condition and may have great impact on the clinical relevance, however, the loading conditions in this study were all prepared and tested in a uniform and reproducible manner and we believe that these results provide useful information to orthopedic surgeons in performing decompressive surgery for lumbar spinal stenosis.

As the reviewer’s suggestion, we have incorporated this point into the limitations/discussion, and the two references mentioned by the reviewer have also been added in the revised manuscript (Reference #22 and #23, Page 18).

We look forward to hearing from you soon. Thank you very much again.

Sincerely,

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