Reviewer's report

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

Version: 1 Date: 20 November 2007

Reviewer: Jim Dickey

Reviewer's report:

General
This is an interesting paper that provides biomechanical evidence on the important clinical question of the implications of resecting the posterior elements. The paper is well written and includes appropriate analyses and discussion.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The authors have chosen to use an eccentrically applied compressive force to their spinal specimens. This mode of loading results in a different load state at each spinal level, as shown in Kostuik and Smith: Spine .

The authors should incorporate this point into their limitations/discussion.

Furthermore, somewhat similar work has been completed using canine spines, which they should also include. Smith M. E. H. et al. 2004. An in vitro biomechanical study of the effects of surgical modification upon the canine lumbosacral spine. Veterinary and Comparative Orthopaedics and Traumatology 17(1):17-24. This work uses four-point bending to achieve a constant bending moment across the spinal levels.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

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What next?: Accept after minor essential revisions

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

Quality of written English: Acceptable
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