Reviewer’s report

Title: Posterior Short Segment Pedicle Screw Fixation and TLIF for the Treatment of Unstable Thoracolumbar Fracture

Version: 2 Date: 25 October 2013

Reviewer: Yohan Robinson

Reviewer’s report:

The authors present a prospective 2-years follow-up study on 20 patients with burst-fractures AO type A3. They performed a posterior decompression and interbody fusion using TLIF technique. Outcome parameters were radiographic successful decompression, kyphosis, bony union, pain (Denis) and return to work (Denis). The results are favourable with regard to decompression and kyphosis correction. The TLIF healed in all patients. 85% of the patients worked full-time at the final follow-up, 15% returned to work with restrictions.

The technique is new; the study is well designed, and interesting to read. This is a manuscript worth publication. Still I have some recommendations that would improve the quality of the manuscript.

1. A native speaker should proofread the manuscript. There are several language problems, which must be addressed before publication.

2. Despite the widespread use of the AO classification, the TLICS score for the patients should be presented as well, since it is more applicable with regard to surgical indication. I recommend the authors for using the AO A3 fracture treatment algorithm as inclusion criteria, where the indication for surgery is seen if there is neurological deficit, wedging >50%, kyphosis >25°, and canal encroachment >50%.

3. Why do the authors use a postoperative brace? There is no evidence available that bracing is necessary after posterior stabilisation of TL fractures.

Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

'I declare that I have no competing interests'