Reviewer's report

Title: Evaluation of Implant Loosening Following Segmental Pedicle Screw Fixation in Adolescent Idiopathic Scoliosis: A 2 Year Follow-up with Low-Dose CT

Version: 3
Date: 5 June 2014

Reviewer: Ian Stokes

Reviewer's report:

The manuscript has been revised and corrected to include prior recommendations and suggestions. However, the significance of the work remains unclear since the degree of concordance between (1) evidence of loosening by CT (2) evidence of loosening by plain radiography (3) pseudo-arthrosis and pain, is not thoroughly addressed. Especially the apparent high sensitivity of CT may be evidence of false positives, since in Table 3 there are 15 cases of loosening by CT, no loosening by plain x-ray. Also, in Table 2 there are 28% of cases of apparent loosening (by CT) but no pain.

Major:
Expand Discussion on page 8, first full paragraph, to address apparent high sensitivity and possible false positive rate of evidence of loosening by CT.

Minor:
Table 2 legend: change 'occurrence of loosening' to 'evidence of loosening by CT' or similar
Table 3: replace 'loosening rtg' by 'loosening by plain x-ray' or similar.

Discretionary:
None

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'