Reviewer's report

Title: Unexpected angular or rotational deformity after corrective osteotomy

Version: 1 Date: 26 February 2014

Reviewer: Andrew R. Thoreson

Reviewer's report:

Overall this is a well-written manuscript on a topic that is difficult to communicate to the intended audience. The purpose and motivation for the study is very clearly presented. Some of the methods and the impact of the findings are less clear, and the authors may be able to clarify.

Major Compulsory Revisions

1) In the methods section describing simulation 1, no mention is made of the resolution for which the forward flexion will be simulated, and this should be included.

2) In the 5th line of the same section, the phrasing of the sentence starting "The different in rotational..." is very awkward and difficult to comprehend. Please revise or include a figure to illustrate.

3) In the 11th and 17th line of the methods describing simulation 2, the authors describe calculating the 3D angle for every 10 degrees or rotation, but every 10 degrees of rotation of what? This needs to be clarified.

4) In figure 4, it is clear how the distal and proximal planes different between the two simulations, but there is not enough information in the figure to explain why you would end up with a different configuration. It seems like, as drawn, the two shapes should be identical with the illustrated rotations. Please review this carefully and make revisions as necessary.

5) In the methods section describing simulation 3, how have the authors used the software to determine the mechanical axis. Depending on how defined, it could affect the results.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I have nothing to declare.