Reviewer’s report

Title: Analysis of knee flexion characteristics and how they alter with the onset of knee osteoarthritis: A case control study

Version: 1 Date: 2 December 2012

Reviewer: Flavia Cicuttini

Reviewer’s report:

This is an interesting study. My main concern relates to some methodological issues that the authors need to address.

Major Compulsory Revisions

Specifically:

1. What are the subject characteristics in terms of gender and BMI? Are there systematic differences given that all the OA patients were recruited in Israel while all the controls in the UK? These factors may explain some of the differences.

2. What is the effect of confounders such as age, gender BMI ion the study? Given the small sample size it will not be possible to do multiple regression. However sub-group analysis where males only and females only are examined will be important. Clearly with the reduced sample size in each group the power will be reduced so the results may not be significant. However the direction and magnitude of the results should remain similar for males and females if gender is not a confounder.

3. What is the effect of gait being performed on different machines at different sites? Could this in part explain the differences seen? This needs to be considered and evidence presented that this is not the main reason for the differences seen.

4. The above need to be discussed in the limitations and the potential effect of these on the results considered.

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

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests