Reviewer's report

Title: A Comparative Assessment of Alternatives to the Full-Leg Radiograph for Determining Knee Joint Alignment

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The authors did do a good job in adding results from previous studies. They have forgotten one paper and I believe this should be added to the paper (Vanwanseele et al, Clinical Orthopaedics and Related Research 2009). I still feel that this paper lacks originality. The authors now sum up results from previous studies however they don’t really directly relate it back to their results nor do they explicatly say how their study is different.

Specific comments:

Introduction

“Few studies that have investigated the validity of clinical methods…”: this sentence needs a reference.

Method:

So anatomic and mechanical alignment are measured on the same radiograph. This means that there is no repositioning between the two measurements was done. This is not the standard manner to compare two methods as skews your results towards a better correlation.

Discussion:

“Kawakami et al showed that limb rotation affects the measurement of limb alignment and creates more measurement variability of the anatomic axis than of the mechanical axis.14” It is important to add here that one of the limitation of the study method is that the mechanical and the anatomical alignment was measured on the same radiograph.

In the discussion, the authors should make a clear distinction between the limitation of their study (study design, methods they used) and the limitations (disadvantages) of the measurement techniques they used (calipers, radiographs,…).

Level of interest: An article of limited interest

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.