Reviewer's report

Title: Dynamic in vitro measurement of patellar movement after TKA: an in vitro study

Version: 1 Date: 3 April 2005

Reviewer: Carsten Oliver Tibesku

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

none

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

P 2, l 3: A study aim should be added to the abstract

P 2, l 6: More detailed information about the measurements should be given in the abstract. The tested TKA should be mentioned.

P 2, l 7: It should be stated that the first result sentence is the physiologic knee.

P 3, l 9: replace “through” by “by”

P 3, l 11: replace “degnrated” by “degenerated”

P 3, l 13: replace “They” by “These”

P 3, l 14: replace “symetrical” by “symmetrical”

P 3, l 14: replace “Others” by “Other”

P 3, l 15: replace “asymetrical” by “asymmetrical”

P 3, l 17: replace “exceeding” by “exceeded”

P 4, l 8: replace “in” by “into”

P 4, l 11: add “…proximal to the knee…”

P 4, l 13: replace “relative” by “in relation”

P 4, l 14: replace “3D” by “three-dimensional”

P 4, l 21: Please provide more detailed information on the geometrical transformation.
P 4, l 22: use either “centre” or “center”

P 5, l 18: provide further information of the prosthesis, e.g. by a picture or more detailed explanation

P 5, l 19: How was external rotation measured? What is the reference (transepicondylar line, Whiteside line, posterior femoral condylar line, ligament tension)?

Results: The authors should comment on Fig. 7, why bicompartmental and tricompartmental TKA differed from the physiologic joint.

Discussion: A limitation of this study is that you cannot be sure, that all starting points at 120 degrees of flexion are identical or even similar. The authors should mention in the discussion that only the relative motion can be compared with this method and no statements concerning for example the overall medio-lateral position of the patella can be made.

Discussion: P 9, line 3: I am not sure, whether this overall statement can be drawn from the results. I should be clarified that the medio-lateral movement of the patella is meant in the first place and some other parameters have not been changed by adding a patella resurfacing to a TKA.

Figure 1: change “femur component” to “femoral component”

Figure 1: change “tibia component” to “tibial component”

A figure of the whole test setup would simplify understanding and should be added.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

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

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

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.