

Point-by-point responses to the reviewer's comments on the manuscript

Manuscript NO: 41131

Title: Short-term differences in anterior knee pain and clinical outcomes between rotating and fixed platform posterior stabilized total knee arthroplasty with a new femoral component design

The authors would like to thank Reviewers for careful review of our manuscript and providing us with their comments and suggestion to improve the quality of the manuscript. We believe that the comments have identified important areas which required improvement.

The following responses have been prepared to address all of the reviewers' comments in a point –by-point fashion.

Comment #	Comments and response
Reviewer 1 1	<p>This is a reasonable quality retrospective cohort study, which adds some further information to the current literature in this field. However, I would recommend several changes be made to the article prior to recommending it for publication: 1) The authors should better explain how and when they obtained their retrospective pre-op follow-up data. This is obviously a significant limitation in the study, and should be described in more detail.</p> <p>Agreed: Thank you for this point. Text revised as per suggestions (Line 172-173 / 184-187)</p>
2	<p>2) The authors do not list their post-op complications . Again this is a necessary requirement of outcome reporting.</p> <p>Agreed: Thank you, we reviewed our database and we add al post op complication (line 261-266)</p>
3	<p>3) The authors should detail how many patients were excluded from the study, and list the reasons for exclusion (as groupings).</p> <p>Agreed: Thank you for this point. We revised the text (lines 158-163) and we</p>

	added a table (Table 4) that describe the patients selection process.
4	<p>4) Please add p values (and 95%CI where appropriate) for the relevant result comparisons, both to the results in the abstract and the results in the text.</p> <p>Agreed: Thank you, we have completed abstract and results section as suggested.</p>
5	<p>5) When listing the results from the various scores used, please denote which score value favours which group (i.e. is a higher score a better score or a worse score).</p> <p>Agreed: Thank you, we improved the results as suggested.</p>
6	<p>6) Please add post-op scores, either in table 2 or in a new table.</p> <p>Agreed : Thank you for this point we create a new table (Table 5) in order to make more understandable for the reader our post op scores</p>
7	<p>7) In table 1, please provide p-values for the Chi square tests instead of chi square values</p> <p>Agreed: Thank you we provided p values instead of chi square values</p>
"Reviewer #2	<p>The title is referring directly to the problem at hand. The abstract is sufficient. Key words reflect the focus of the manuscript. Introduction is well placed and clear.</p> <p>Material and Methods The authors retrospectively analyzed 39 patients who underwent primary total knee replacement surgery for knee osteoarthritis using the PFC Sigma PS TKA with either fixed or rotating platform, without patella replacement, treated between 2009 and 2013 by the same surgeon. Results No differences were found in KSS, Knee Performance Score, and SF-36 outcome scores. A statistically significant difference was found in the HSS Patella score objective (FP: 22.36; RP: 28.75), HSS Patella score total (FP: 73.68; RP: 86.50), and KOOS symptoms (FP: 73.49; RP: 86.44). Discussion Several studies have confirmed that, in comparison to fixed-bearing designs, mobile-bearing designs result not only in decreased polyethylene wear, but also lower grade and more symmetrical wear, more physiological knee kinematics and better patella self-alignment. Limitations First, this is a limited sample study. Second, this is a retrospective study with its disadvantages. Third there is no reference and comparison with resurfacing and non-resurfacing of the patella. Tables are sufficient and of good quality and appropriately illustrative of the paper contents. The authors conclude "our data support the concept that the rotating platform prosthesis reduces the short-term incidence of anterior knee pain compared to the fixed platform system." References are cited appropriately the latest references in the introduction and discussion sections, while the submitted manuscript is supported by 42 references. The anterior knee pain is observed after arthroplasty at 4-49% of the operated cases. A significantly improved patellar tracking was demonstrated with decreased patellofemoral contact stresses. The rotating platform permits self-correction of</p>

	<p>component rotational mal-alignment, allowing thus better centralization of the extensor mechanism and adaptation to inferior limb rotational defects, improving patello-femoral contact stresses.</p>
--	--

	<p>Agreed: Thank you so much for your evaluation, we really appreciate.</p>
--	--