Dear Editors and Reviewers

Thank you so much for your big help. I corrected all topics following the comments of editors and reviewers. The manuscript is much better after correction following your comments. So, it will help patients and surgeon for taking care their patients.

Best regard,

Author

Reviewer #1

1. How has the results of this study affected your practice?

   Author's respond

   - Mobile bearing UKA with adjusting some steps of surgical technique can reduce postoperative GR and improve clinical outcomes for this group of patients.
   - So, the results of this study will reduce postoperative pain, patients will feel like normal, and reduce reoperation. And it will reduce using constrain prosthesis for this group of patients.

2. What specific recommendations do you have for the patient's management?

   Author's respond

   - The medial OA knee with GR less than 20 ºin not contra indication for mobile bearing UKA.
   - The medial OA knee with GR less than 10 ºwas recommended to set a little tighten extension (undercut 1mm of distal femur).
   - The medial OA knee with GR between 10 º- 20 ºwas recommended to set a little tighten extension gap and apply one size up of femoral component.

3. You have stated that “Statistics have shown that 30 knees in group I and 140 knees in group II, would have 80% power at the significant 5%.” I do not know how did you calculate it or which data you used.

   Author’s respond

   - This study used Stata program. The non-inferiority was used. The standard deviation was 3. The mean was (clinical relevant difference) 6. The ratio was 5. Statistics have shown that 30 knees in group I and 140 knees in group II, would have 80% power at the significant 5%.

4. In the flowchart, there are some missing sentences.

   Author’s respond

   - I correct it already at figure 2

5. When we look the age range in two groups, age range is 57-76 years in the first group and age range 44-88 years in the second group, although the average is similar, different results can be obtained at different ages.

   Author’s respond

   - One patient in group II is 44 years old, so I will write in limitation (line 285-290).

6. You have stated that “The patients were followed up at 6 weeks, 3 months, 6 months, 1 year, and then annually. At each follow-up, the patients were recorded Knee Society Score© (KSS)” However which results did you report in tables? This is not clear for readers.

   Author’s respond

   - This study reported the KSS at 2 years of follow up, and write the follow up time at table II.

Reviewer #2

1. 1. It seems that UKA has a function that can correct the GR. The larger femoral component will change the position of femoral component at superior part of the distal femoral condyle and tighten extension gap. It could prevent postoperative GR. Remember that this was only in medial compartment. Please explain how to tighten lateral compartment.

   Author's respond

   - The knee alignment will be back to pre-disease alignment after operation. So, we cannot set too tight extension gap, it will be cause of overcorrection. We can estimate the knee alignment after operation by increasing 1mm of thickness of PE or undercut distal femur of 1mm will increase tibiofemoral alignment 1 degree. The postoperative knee alignment should be 2-6 degrees of valgus following mobile bearing UKA. So we expect the postoperative knee alignment should be less than 3-7 degrees of valgus in patients with preoperative GR with set a little tighten extension gap. Because we cannot set too tight extension gap (load to lateral compartment). So, we will apply one size up of femoral component. The large femoral component is not effect or not too much effect to the extension gap but it can be tight extension beyond full extension (picture 1) and prevent postoperative GR.

2. It would be more interesting if authors can provide a couple more cases of pre and post-operative x-rays.

   Author's respond

   We put more picture of patients in figure III.

Reviewer #3

1. I think the author must include in the Title the precision that the study deals with patients with medial OA.

   Author's respond

   We change title " The outcomes of mobile bearing unicompartmental knee arthroplasty in medial osteoarthritis knee with and without preoperative genu recurvatum" line 6-7 and line 101-102

2. Hyperextension of more than 5 ºcoexisting with a flexion contracture?

   Author's respond

   The group II patient included FC and GR less than 5 º

3. How do you measure the recurvatum angle?

   Author's respond

   the standard technique (using the long arm goniometer to measure during patient s stand up)

4. What do you mean with the paragraph lines 114-117? Explain it.

   Author's respond

   - We will choose the one size larger of femoral component in group I (with GR) when the femoral component is between size. And we will use one size larger of femoral component when the hyperextension is between 10-20 degrees. (line 177-178)

5. Oversizing the femoral component can cause femoro-patellar problems and must be avoided.

Author’s respond

I wrote at line 262-268, I will emphasize that I apply only one size up of femoral component.