



# Response to: Study of Patients with Bilateral Knee Osteoarthritis Undergoing Total Knee Replacement Procedure with Coexisting Lumbar Spondylosis Symptoms

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Dear Editor,

We thank the reader for reading our article with interest and acknowledging our attempt to study this thought-provoking topic [1]. The clarification to the queries raised by them is as follows:

## 1. How did you prevent the possible confounding of Oswestry Disability Index (ODI) by knee osteoarthritis (OA) pain [2]?

Response: ODI is the most commonly used patient-reported outcome measure for low back pain in the clinical setting. It is a patient self-administered questionnaire. It has 10 sections that assess limitations to the various activities of daily living due to pain. Each section is scored on a scale of 0–5 scale, with 0 representing no disability and

5 representing the greatest disability. ODI is measured by dividing the summed score by the total possible score and then multiplying by 100. The final score is expressed as a percentage. We do acknowledge that certain sections of the ODI like pain on movement, walking, sitting, standing and personal care activities like washing and dressing can also get affected by pain and disability arising out of end-stage (grade 4) OA. In fact, we have accepted this possible confounding of ODI by knee OA pain in the limitations section of the paper. We have stated that “One of the major limitations of the study is the selection bias toward patients with advanced OA of the knee rather than a degenerative disease of the lumbar spine. We are aware of the fact that patients present with different severities of the knee and lumbar spine degenerative pathology. The patients coming to the joint clinic exhibit more knee degeneration than lumbar spine degeneration. Patients

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presenting with more severe degenerative lumbar spine problems than knee problems are more likely to seek help from a spine specialist. Thus, it is entirely possible that patients with more severe degenerative pathology of the lumbar spine were not captured in this study. A similar study by spine specialists or combined studies including both spine and joint surgeons would be useful to contradict the selection bias.”

## **2. ODI was moderate to severe preoperatively in all patients, then why was spine not addressed first? How did the ODI decrease after total knee replacement (TKR)?**

Response: ODI preoperatively was not moderate to severe in all the patients. In our study, we found that 60% of the patients presented with moderate/severe symptoms of lumbar spondylosis and degenerative lumbar spine disease. The spine was not addressed first as the patients were presenting themselves to the knee clinic and may be exhibiting more knee degeneration than lumbar spine degeneration. We have acknowledged this in the limitations section of the paper by stating that “We are aware of the fact that patients present with different severities of knee and lumbar spine degenerative pathology. The patients coming to the joint clinic exhibit more knee degeneration than lumbar spine degeneration. Patients presenting with more severe degenerative lumbar spine problems than knee problems are more likely to seek help from a spine specialist.”

The possible reasons for the decrease in ODI after TKR are as follows: (1) improvements in the gait pattern post-TKR and improvement in the knee function [3]; (2) improvement due to the use of pain medicines after the TKR surgery, namely Cox 2 inhibitors and pregabalin [4]; and (3) postoperative physiotherapy and rehabilitation leading to improvement in ODI.

We have mentioned this in the limitations section of the paper by stating “The third limitation is that the improvement in lumbar spine symptoms after TKR may be because of improvements in the gait pattern post TKR and improvement in the knee function [3]. Part of the improvement might also be because of the use of pain medicines after the TKR surgery, namely Cox 2 inhibitors and pregabalin [4] and postoperative physiotherapy and rehabilitation, which might improve lumbar spine symptoms.”

## **3. Was any correlation between ODI and Oxford Knee Score (OKS) checked?**

Response: We did not check correlation between ODI and OKS.

## **4. How was the possible selection bias towards advanced OA as compared to lumbar spine degeneration addressed in the study?**

Response: As stated before one of the major limitations of the study is the selection bias toward patients with advanced OA of the knee rather than a degenerative disease of the lumbar spine. This is because we conducted a prospective cohort study on 200 patients presenting to the knee joint clinic with end-stage knee OA undergoing primary TKR.

## **5. Is it possible that the incidental finding of lumbar degeneration lead to better scrutiny and treatment of spine symptoms in these patients [5]?**

Response: It is entirely possible that the incidental finding of lumbar degeneration might have led to better scrutiny and treatment of spine symptoms in these patients presenting to the knee joint clinic with end-stage knee OA undergoing primary TKR, but the main possible reasons for the improvement of spine symptoms in these patients might be (1) improvements in the gait pattern post-TKR and improvement in the knee function [3]; (2) improvement due to use of pain medicines after the TKR surgery, namely Cox 2 inhibitors and pregabalin; [4] and (3) postoperative physiotherapy and rehabilitation leading to improvement in ODI.

## **Conflict of Interest**

No potential conflict of interest relevant to this article was reported.

## **References**

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