***CORR* Insights®: Coexisting Lumbar Spondylosis in Patients Undergoing TKA: How Common and How Serious?**

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Where Are We Now?

The current study by Chang and colleagues is of major interest to orthopaedic surgeons. To date, there is essentially no information specifically evaluating the effect of a symptomatic spinal disorder on the results of knee arthroplasty. The effects of knee arthroplasty on the natural history of a symptomatic spinal disorder also have been largely ignored. Joint degeneration is rarely isolated, and surgeons can expect patients with advanced knee arthritis to have coexisting degenerative disease elsewhere, including the spine. Identification and understanding of the

relationships of these coexisting problems are potentially important. In this study, the authors evaluated the relationship between lumbar spinal disorders and knee osteoarthritis. It is important to note that the authors used data from a knee-specific registry. As a consequence, there are real limitations regarding the spine data. Screening criteria primarily were based on radiographs. It is well known that there is essentially no correlation between radiographs and clinical disorders of the spine. There was no advanced imaging to diagnose specific disorders, nor any mention of deformities affecting sagittal or coronal balance. Lastly, the categories assigned to the spine were not really disorders at all, merely descriptors of pain based on the visual analog scale.

This *CORR* Insights® is a *commentary on the article* “Coexisting Lumbar Spondylosis in Patients Undergoing TKA: How Common and How Serious?” by Chang and colleagues available at: DOI: [10.1007/s11999-013-3298-7](https://doi.org/10.1007/s11999-013-3298-7).

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Where Do We Need To Go?

While this paper answers a number of central questions, it left two important ones unanswered: (1) How do symptomatic spinal disorders affect the outcomes of TKA? (2) What affect does TKA have on the natural history of coexisting spinal disorders? One of the issues with this study is that the authors did not include spinal disorders. Instead, Chang and colleagues focused on radiographic degeneration, which is nearly ubiquitous in this patient population in combination with pain. We will not be able to understand the respective influences without specific diagnoses. Looking at it another way, the influence of knee pain on symptomatic spinal stenosis may be expected to be different if the pain is from arthritis versus a meniscal tear or knee instability. In many cases, addressing symptomatic knee osteoarthritis often improves lumbar-related complaints, as it did in this study. It probably helps improve body mechanics and potentially aggravating stresses on the

spine, but the true influence of TKA on problems of the lumbar spine will be much clearer and better understood if specific diagnoses are made in future studies that address these important questions.

How Do We Get There?

The authors alluded to the difficulty and expense of obtaining more detailed information for the spinal conditions. Unfortunately, I believe this will be necessary to understand how the knee and spine together affect outcomes. Studies will have to examine specific disorders in the knee (osteoarthritis for this patient population), as well as in the spine. For the spine, future researchers should evaluate the effects of a single condition, such as symptomatic spinal stenosis, or multiple spinal disorders; in

either case, these studies must focus on specific diagnoses, and those diagnoses will need to be made clearly. Consider something like studies focusing on one diagnosis will need to be much larger in order to be able to perform subgroup analysis. It will be important to study long-term outcomes of the spine, as well as the knee, to understand not only how the spine affects the knee, but also how the knee affects the spine. It would also be helpful to examine comparative effectiveness for cohorts with and without coexisting spinal disorders. While outcomes may be improved across the board, there may or may not be important differences between the two cohorts, and if that is the case, that would be worth knowing. From these data, one would hope to understand and predict those spinal disorders that clinically improve with knee arthroplasty, and if addressed properly, help improve the results of knee arthroplasty.