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Static v. Expandable TLIF Cage Outcomes

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Static v. Expandable TLIF Cage Outcomes

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Static cages were introduced in the 1990s as a solution to degenerative spondylolisthesis, recurrent disc herniation and spinal stenosis. As this procedure was popularized, a new class of expandable Transforaminal Lumbar Interbody Fusion devices was introduced to further improve outcomes that will be studied in this project. It will be explored how expandable cages compare to static cages in TLIF procedures in patient-reported outcomes, complications and restoration of appropriate lumbar lordosis.

We conducted a retrospective cohort review comparing those who received expandable and static cages. Eligible patients received TLIF procedure at the Rothman Institute, were ≥18 years of age and had radiographic follow-up at 3 months and 1 year postoperatively. Outcomes were measured in lumbar lordosis via calculating angles via radiographic images preoperatively and 3 month and 1 year postoperatively as well as pre- and post-operative SF-12 surveys.

At this time, data acquisition is ongoing and no preliminary data has been generated. However, we anticipate better patient reported outcomes and greater and sustained restoration of Lumbar Lordosis in patients who received expandable cages. Data collection is scheduled to be completed shortly.

Once completed, this will be a study of greater magnitude and will address the shortage of investigations into the surgical outcomes of static and expandable cages and clarify the theorized benefits of expandable cages. Recent emphasis has been placed on restoring appropriate lumbar lordosis in fusion surgeries and this project was designed to investigate lordosis at different time posts as compared to patient-reported outcomes.