

# Learning Curve Of Minimally Invasive Oblique Lateral Lumbar Interbody Fusion: Single Surgeon's Experience Of 57 Consecutive Cases

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## Purpose

The purpose of this study is to define and analyze the learning curve for MIS-OLIF with a single spine surgeon's experience based on intra- and perioperative parameters. This study is retrospective analysis of single surgeon's consecutive case series in a single institution

## Material and methods

Fifty-seven consecutive patients with single or multi-level degenerative lumbar diseases who were treated by MIS-OLIF were included in the study. Surgeries were performed using oblique pre-psoas approach with a tubular retractor, and a cage was inserted using an orthogonal maneuver by a single surgeon. Corrected operative time per level, operative blood loss, postoperative drainage, transfusion rate, and ambulation recovery time were measured. The learning curve was assessed using a logarithmic curve-fit regression analysis

## Results

Corrected operative time gradually decreased as the series progressed, and an asymptote was reached after about 30 cases. In the single-level OLIF series, operative time was significantly shorter in the late group than the early group, and blood loss during the operation was significantly reduced in the late group compared with the early group. Ambulation recovery time and VAS scores for back and leg pain did not differ between the two groups.

## Conclusion

The MIS-OLIF is a technically difficult procedure to the practicing spine surgeon with regard to unfamiliar retroperitoneal approach. Although it is not easy to master this minimally invasive technique, Operative time and blood loss improved with the surgeon's experience.