

Few studies have reported direct comparative data of [lumbar spine](#) angles between [direct lateral interbody fusion](#) (DLIF) and [oblique lateral interbody fusion](#) (OLIF). The purpose of the study of Ko et al., was to investigate the clinical and radiological [outcomes](#) of DLIF and OLIF, and determine influential factors.

The same surgeon performed DLIF from May 2011 to August 2014 (n=201) and OLIF from September 2014 to September 2016 (n=142). Radiological parameters, [cage height](#), [cage angle](#) (CA), [cage width](#) (CW), and [cage location](#) were assessed. They checked the cage location as the distance (mm) from the anterior margin of the [disc space](#) to the anterior [metallic indicator](#) of the cage in lateral images.

There were significant differences in [intervertebral foramen height](#) (FH;  $22.0 \pm 2.4$  vs.  $21.0 \pm 2.1$  mm,  $p < 0.001$ ) and [sagittal disc angle](#) (SDA;  $8.7 \pm 3.3$  vs.  $11.3 \pm 3.2^\circ$ ,  $p < 0.001$ ) between the DLIF and OLIF groups at 7 days [postoperatively](#). CA ( $9.6 \pm 3.0$  vs.  $8.1 \pm 2.9^\circ$ ,  $p < 0.001$ ) and CW ( $21.2 \pm 1.6$  vs.  $19.2 \pm 1.9$  mm,  $p < 0.001$ ) were significantly larger in the OLIF group compared to the DLIF group. The cage location of the OLIF group was significantly more anterior than the DLIF group ( $6.7 \pm 3.0$  vs.  $9.1 \pm 3.6$  mm,  $p < 0.001$ ). [Cage subsidence](#) at 1 year postoperatively was significantly worse in the DLIF group compared to the OLIF group ( $1.0 \pm 1.5$  vs.  $0.4 \pm 1.1$  mm,  $p = 0.001$ ). Cage location was significantly correlated with postoperative FH ( $\beta = 0.273$ ,  $p < 0.001$ ) and postoperative SDA ( $\beta = -0.358$ ,  $p < 0.001$ ). CA was significantly correlated with postoperative FH ( $\beta = -0.139$ ,  $p = 0.044$ ) and postoperative SDA ( $\beta = 0.236$ ,  $p = 0.001$ ). Cage location ( $\beta = 0.293$ ,  $p < 0.001$ ) and CW ( $\beta = -0.225$ ,  $p < 0.001$ ) were significantly correlated with cage subsidence.

The cage location, CA, and CW seem to be important factors which result in the different-radiological outcomes between DLIF and OLIF <sup>1)</sup>.

<sup>1)</sup>

Ko MJ, Park SW, Kim YB. Effect of Cage in Radiological Differences between Direct and Oblique Lateral Interbody Fusion Techniques. J Korean Neurosurg Soc. 2019 May 8. doi: 10.3340/jkns.2018.0142. [Epub ahead of print] PubMed PMID: 31064045.

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