Letter to the Editor

Surgical Technique: Hemilaminectomy and Unilateral Lateral Mass Fixation for Cervical Ossification of the Posterior Longitudinal Ligament

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To the editor,

We read the article by Liu et al. [2] with great interest.

Liu and colleagues studied a new surgical technique for multilevel continuous/mixed cervical ossification of posterior longitudinal ligament (OPLL) without fixed kyphosis by multilevel hemilaminectomy with unilateral lateral mass fixation with good results. However, we have some concerns.

As described by the authors, there are various options for cervical OPLL depending on its type, associated deformity, and number of vertebrae involved. A posterior approach is based on the concept of indirect decompression by increasing space available for the spinal cord through

laminectomy or various type of laminoplasty without directly addressing the ossified lesion. Liu and colleagues stated that the occupying rates were a significant factor for poor results. Occupying rate is defined as the thickness of OPLL divided by the AP diameter of bony spinal canal on the axial CT image. Hemilaminectomy alone will not decompress enough to provide good results [1].

Lateral mass screw fixation is based on the biomechanical principle of “neutralization.” It provides stress shielding, and minimizes torsional bending, shearing, and axial loading [3].

Unilateral mass fixation will result in unequal axial loading, and it will not prevent torsional bending and shearing forces. Unilateral mass fixation will lead to implant failure and deformity of the spine.

(RE: Liu K, Shi J, Jia L, Yuan W. Surgical Technique: Hemilaminectomy and Unilateral Lateral Mass Fixation for Cervical Ossification of the Posterior Longitudinal Ligament. *Clin Orthop Relat Res*. 2013;471:2219–2224.)

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