

High grade spondylolisthesis

Lumbosacral [spondyloptosis](#), by definition, is more than 100% anterior displacement of the [L5 vertebra](#) with regard to the [sacrum](#). It is also known as grade 5 [spondylolisthesis](#) ^{1) 2) 3)}.

Hresko et al. proposed a classification system dividing high grade [spondylolisthesis](#) cases into unbalanced and balanced pelvic groups based on the orientation, i.e. radiographic parameters, of the [pelvis](#). Balanced pelvises had higher SS and lower pelvic tilt, whereas unbalanced pelvises incompletely compensate with lower SS and pelvic retroversion, resulting in a higher pelvic tilt (PT) ⁴⁾

Treatment

Surgical stabilization of high-grade spondylolisthesis remains controversial.

High-grade [spondylolisthesis](#) can be a debilitating condition for the patient and present a significant challenge for the surgeon ⁵⁾.

Surgical techniques

Several surgical techniques have been advocated to deal with symptomatic [L5 S1 spondylolisthesis](#).

[Posterolateral fusion](#) with [pedicle screw fixation](#) has become increasingly popular ⁶⁾.

Complications

It has been associated with a relatively high rate of pseudoarthrosis and progressive slippage ⁷⁾.

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Boos N, Marchesi D, Zuber K, Aebi M. Treatment of severe spondylolisthesis by reduction and pedicular fixation. A 4-6-year follow-up study. Spine. 1993;18(12):1655-1661.

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Chandrashekhara S H, Kumar A, Gamanagatti S. et al. Unusual traumatic spondyloptosis causing complete transection of spinal cord. Int Orthop. 2011;35(11):1671-1675

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Hresko MT, Labelle H, Roussouly P, Berthonnaud E. Classification of high-grade spondylolistheses based on pelvic version and spine balance: possible rationale for reduction. Spine 2007;32:2208-13.

^{5) 7)}

Boxall D, Bradford DS, Winter RB, Moe JH (1979) Management of severe spondylolisthesis in children and adolescents. J Bone Joint Surg Am 61:479-495

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Lee GW, Lee SM, Ahn MW, Kim HJ, Yeom JS (2014) Comparison of posterolateral lumbar fusion and posterior lumbar interbody fusion for patients younger than 60 years with isthmic spondylolisthesis. Spine 39:1475-1480

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