CORRECTION OF SEVERE STIFF SCOLIOSIS THROUGH EXTRAPLEURAL INTERBODY RELEASE AND OSTEOTOMY (LIEPO)

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ABSTRACT

Objective: To report a new technique for extrapleural interbody release with transcorporal osteotomy of the inferior vertebral plateau (LIEPO) and to evaluate the correction potential of this technique and its complications. Method: We included patients with scoliosis with Cobb angle greater than 90° and flexibility less than 25% submitted to surgical treatment between 2012 and 2016 by the technique LIEPO at the National Institute of Traumatology and Orthopedics (INTO). Sagittal and coronal alignment, and the translation of the apical vertebra were measured and the degree of correction of the deformity was calculated through the pre and postoperative radiographs, and the com- plications were described. Results: Patients had an average bleed of 1,525 ml, 8.8 hours of surgical time, 123° of scoliosis in the preoperative period, and a mean correction of 66%. There was no case of permanent neurological damage and no surgical revision. Conclusion: The LIEPO technique proved to be effective and safe in the treatment of severe stiff scoliosis, reaching a correction potential close to the PEISR (Posterior extrapleural intervertebral space release) technique and superior to that of the pVCR (posterior Vertebral Column Resection) with no presence of infection and permanent neurological deficit. New studies are needed to validate this promising technique.

Keywords: Scoliosis/surgery; Spine/surgery; Osteotomy; Treatment outcome.



Figure 2. Pre- and postoperative clinical and radiographic images in the coronal plane.

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