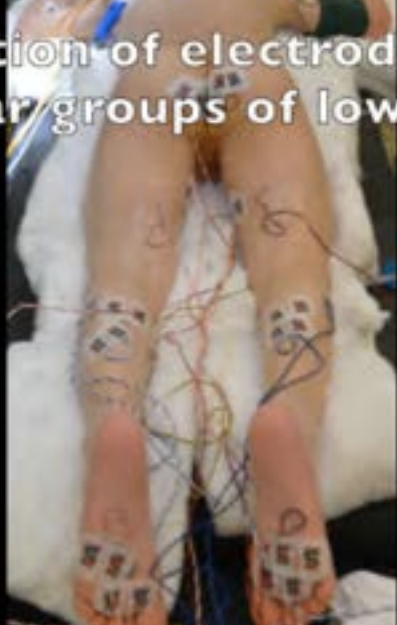


Keyhole Interlaminar Dorsal rhizotomy” for spastic diplegic children with cerebral palsy

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Implantation of electrodes in main muscular groups of lower limbs



Clinical Observation
EMG - recordings

[illegible]

Intra-Operative Neuromonitoring (root after root)

(example of left L4 root)

- Step 1: **Anatomical Mapping**

Ventral Root stimulation (2Hz and 200µA)

to identify myotomal innervation
and confirm topographical level

- Step 2: **Physiological Testing**

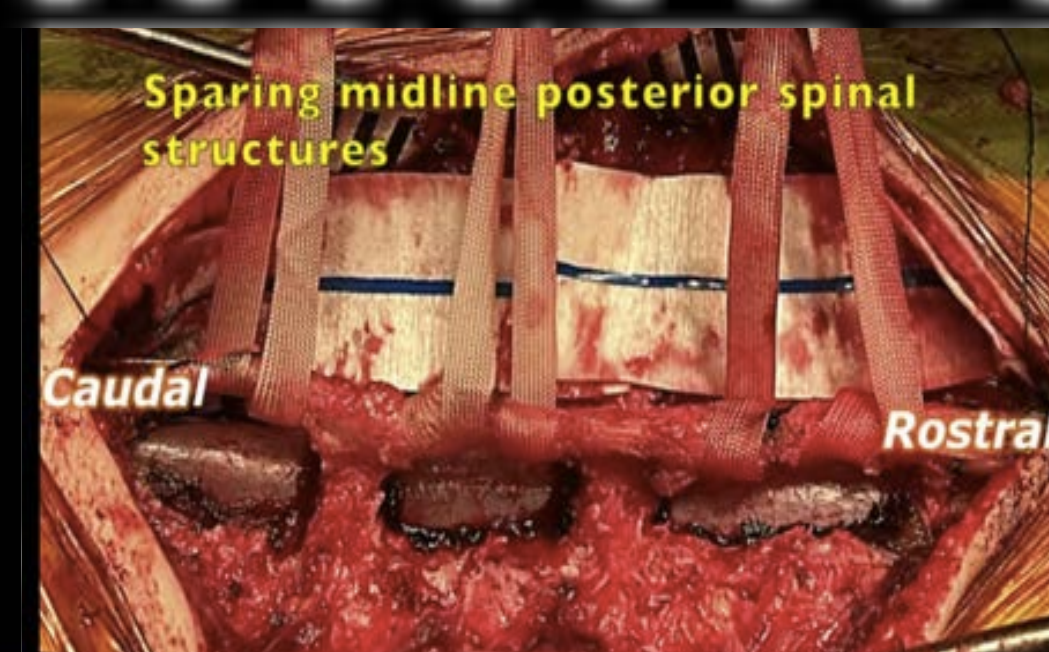
Dorsal Root (rootlets) stimulation (50Hz and 1mA)

to evaluate degree of implication in the tone circuit
(Fasano's classification)

[illegible]

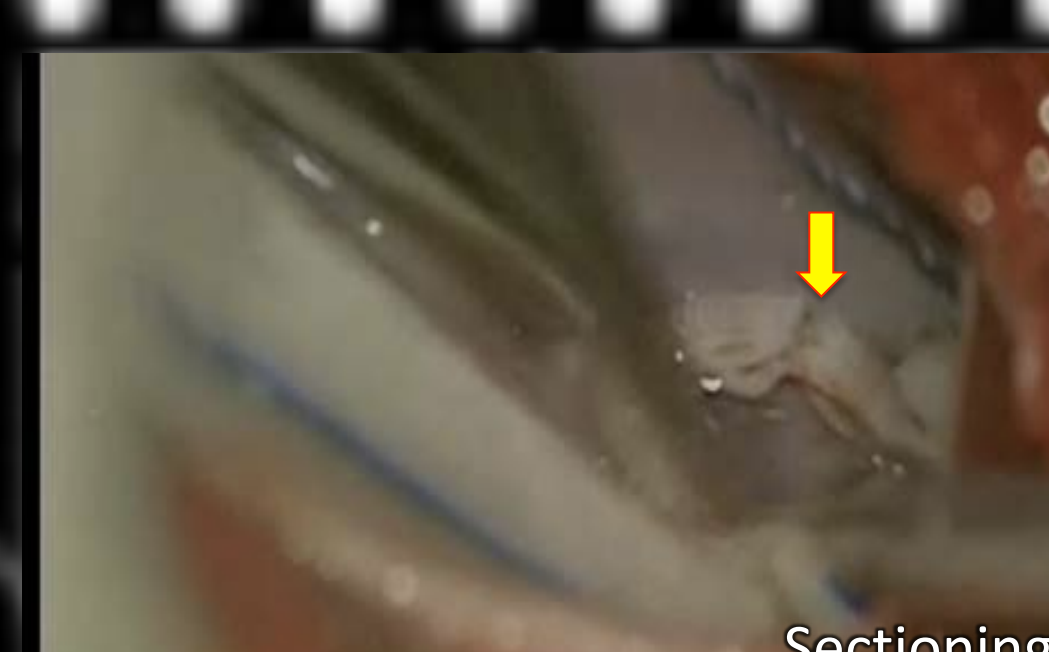
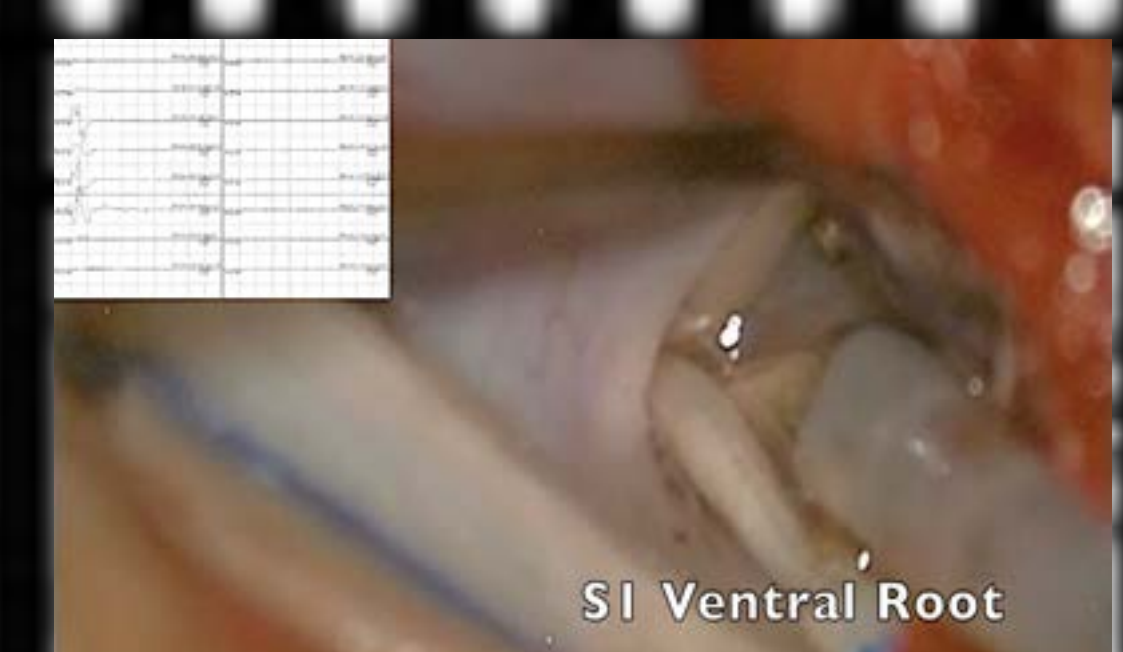
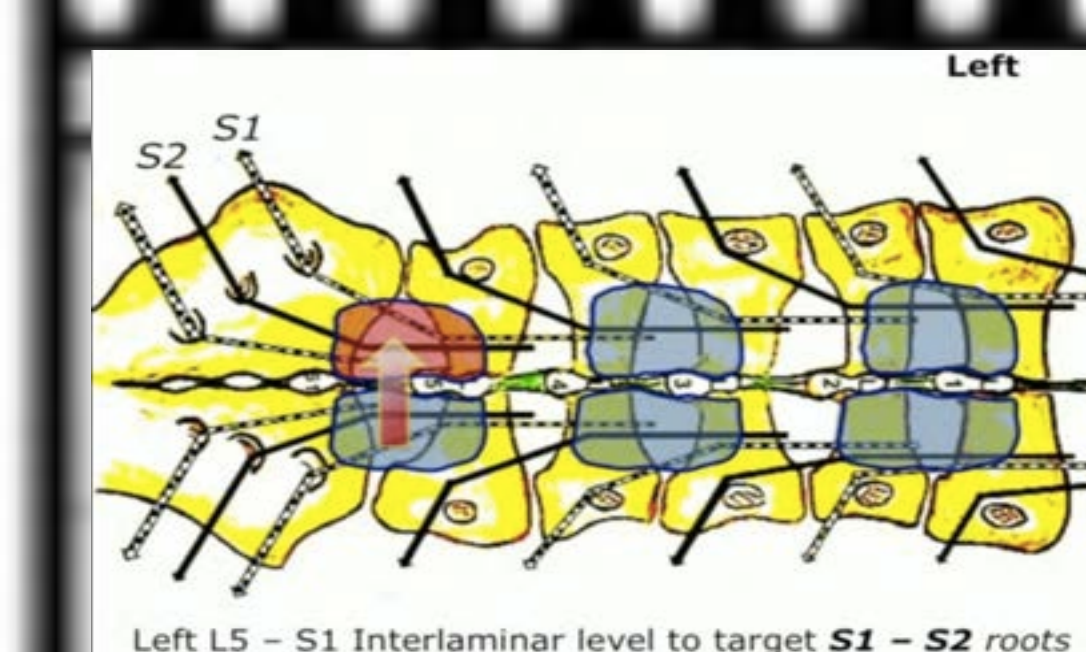
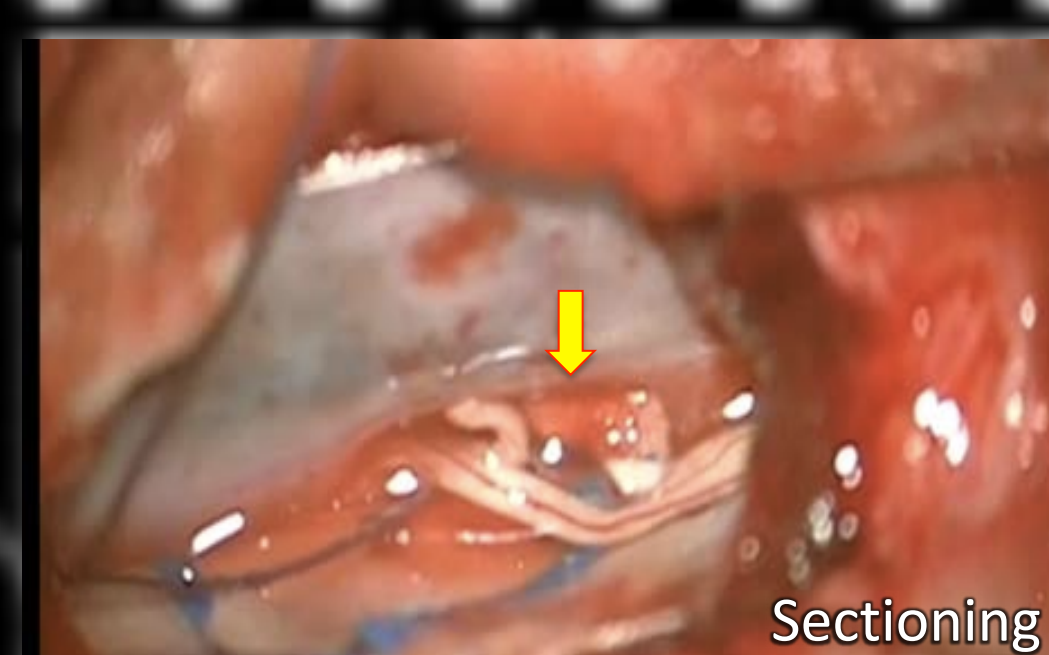
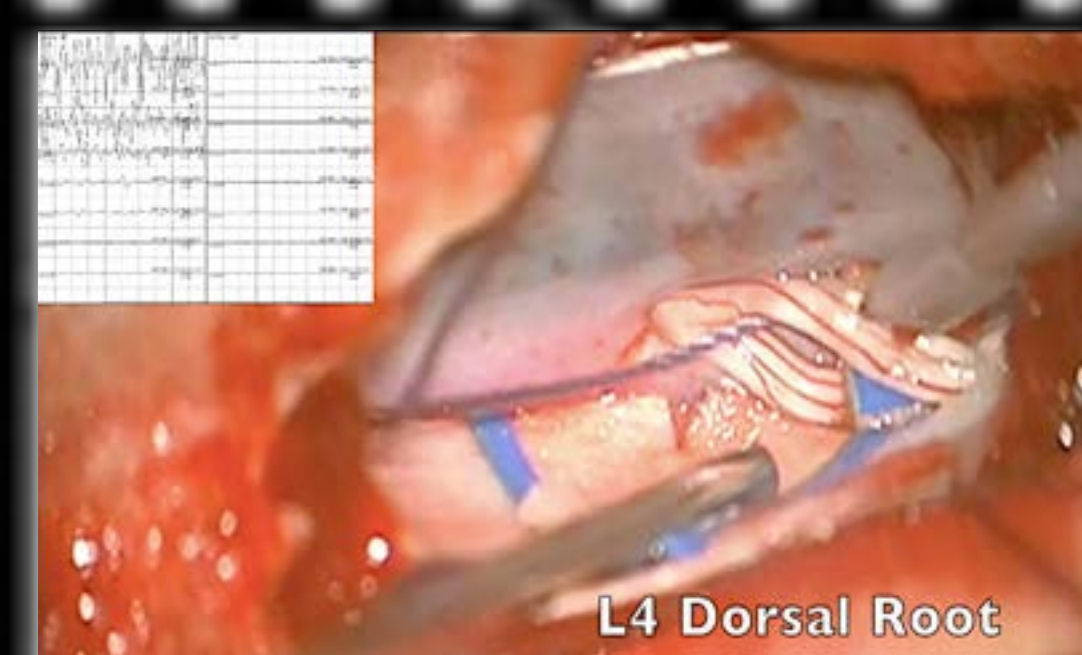
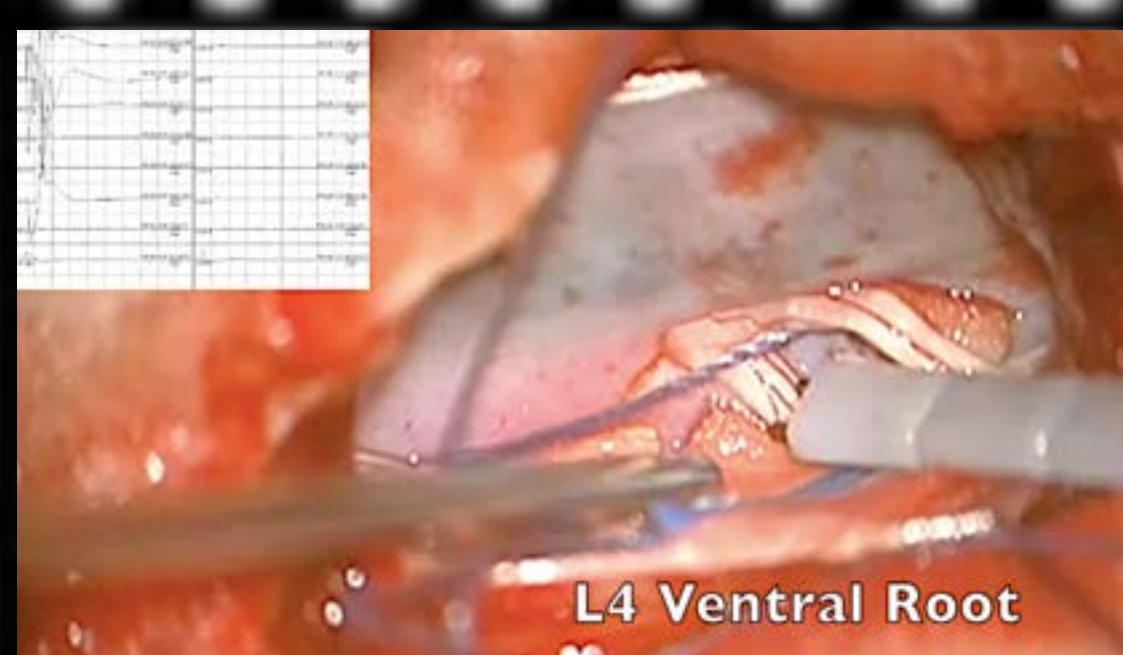
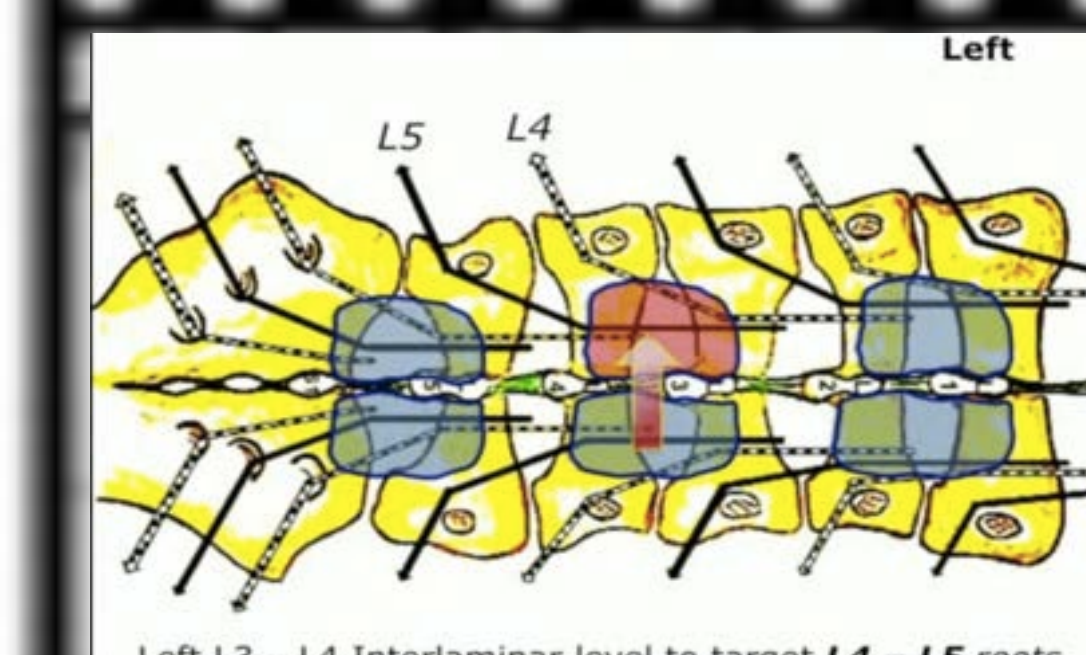
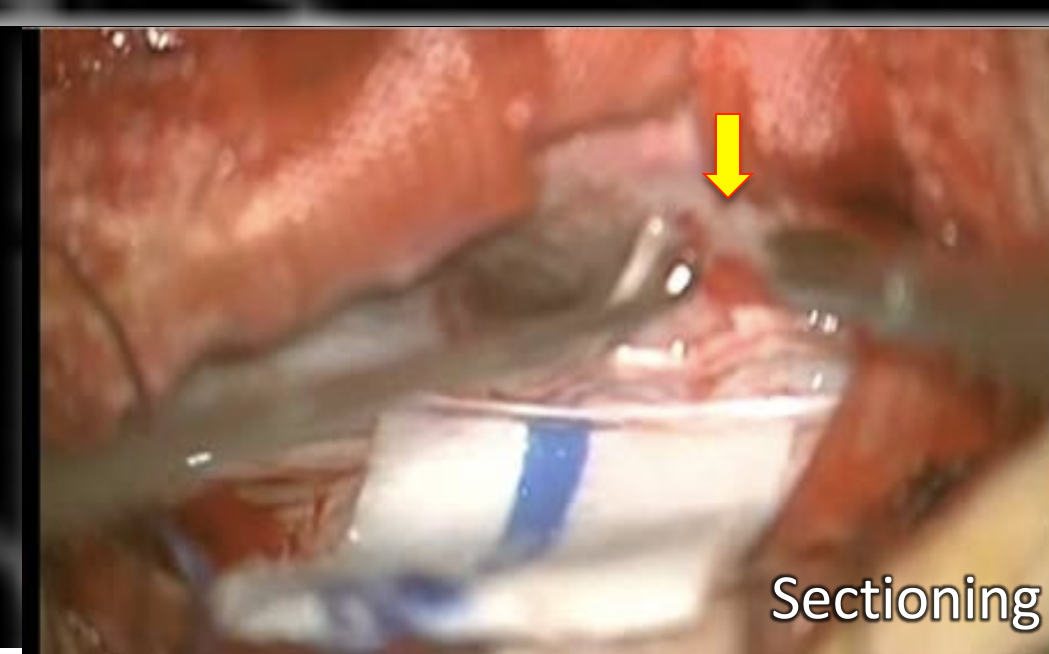
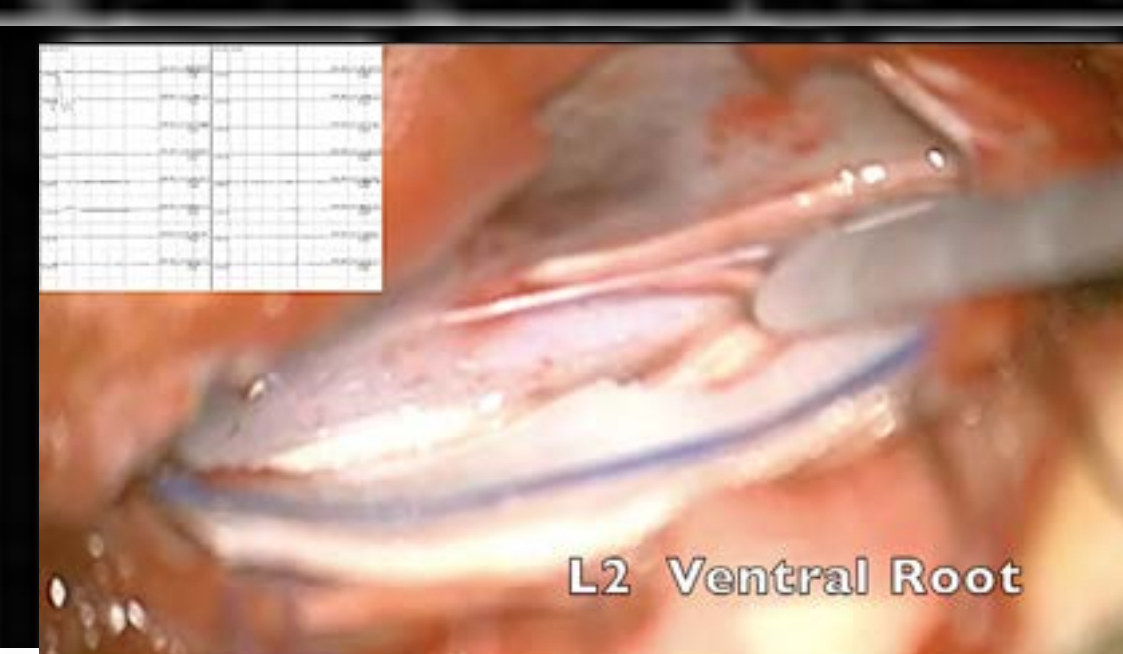
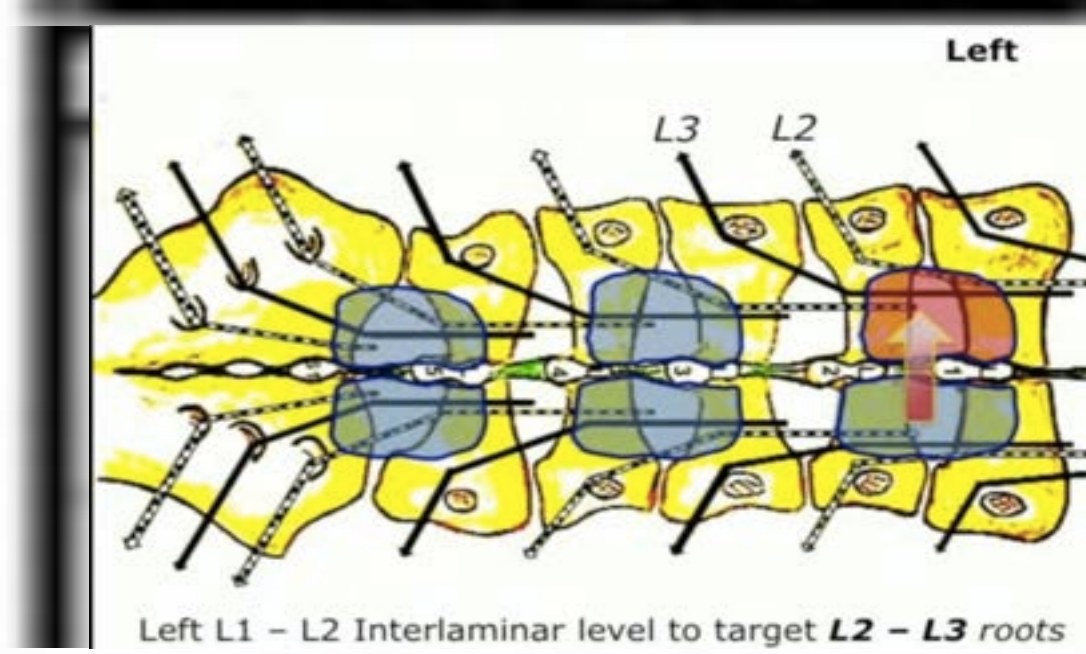
Dorsal rhizotomy is considered the gold standard for treating spastic diplegia/quadruplegia in children with cerebral palsy, when rehabilitation programs reveal insufficient to control excess of spasticity.

The **Keyhole Interlaminar Dorsal rhizotomy** modality has been developed to access—individually—all L2–S2 roots, intradurally at the corresponding dural sheath, and preserve the posterior spine architecture.



Opening and Suspension of Dura mater

Intraoperative neuromonitoring consists of stimulating each ventral root, to verify its myotomal innervation (anatomical mapping), and dorsal roots, to explore their reflexive muscular responses in order to help determination of the proportion of rootlets to be cut (physiological testing).



the same for
the Right side