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Cervical Selective Dorsal Rhizotomy in the not only Spasticity Treatment in 21 Children with Cerebral Palsy

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Abstract No. 44 | printed page 39 | PDF page 20

Archival PDF prepared 12 October 2026. The readable transcription retains the original English wording and spelling; headings and line wrapping have been reformatted. A facsimile excerpt of the original abstract follows on page 2.

Introduction

We have performed 126 Selective Dorsal Rhizotomies (SDR) in the treatment of 114 children between 1.5 and 19 years with spastic or mixed forms of Cerebral Palsy since July 3rd 2003. We have started our experience with the well recognized SDR in the (thoraco)lumbosacral (SDR-(T)LS) level with excellent results; the first SDR in the cervical (cervicothoracal) (SDR-C(T)) level we have performed September 23rd 2004.

Methods

We have performed 21 SDR in the cervical level (SDR-C(T)) based on preoperative reflex evaluation in children between 3 and 15 years till now, in 4 patients was unilateral procedure done, in 12 patients was SDR in both levels (SDR-(T)LS and SDR-C(T)) performed. We have evaluated the functional results 3 to 9 months postoperatively.

Results

There are no any complications related to SDR-C(T). Functional improvement was found in all children post SDR-C(T): The most seen effects are dramatic reduction of upper extremities and some reduction of lower extremities spasticity, rigidity and contractures, dramatic improvement in gross and some in fine motor skills of the upper extremities, reduction of generalized dystonic attacs, reduction of orofacial spasticity, reduction of hypersalivation and improvement of communicational and cognitive skills.

Conclusions

SDR-C(T) is safe and very efficient procedure significantly enhancing the therapeutic possibilities in the treatment of hemi-, tri- or tetra-paretic patients with broad spectrum of severity of their disability. Optimal SDR-C(T) candidates are the children with spastic hemiplegia. In spastic tri- or tetra-plegia may be combination of SDR-C(T) and SDR-(T)LS very efficient and effect of both procedures is more then simply additive.

Original AANS/CNS meeting program (abstract 44, printed p. 39)

SPP Institute archival record and historical context

Original published abstract

Facsimile excerpt: abstract No. 44, printed p. 39 (PDF p. 20).

34th Annual Meeting of the AANS/CNS Section on Pediatric Neurological Surgery, 2005. The source image is preserved without retouching.

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