

Dentatotomy

see [Denticulate ligament dentatotomy](#).

Stereotactic ablation of the dentate cerebellar nuclei (dentatotomy) was widely used in the past with variable results.

In a study Teixeira et al. reviewed 12 consecutive cases operated on at the Midland Centre for Neurosurgery and Neurology at Birmingham University (Smetwick, UK) in the 1980s. The following clinical aspects were analyzed: severity of spasticity, occurrence of abnormal movements (dystonia/athetosis), language fluency, gait, and overall clinical condition. Follow-up ranged from 0.5 to 94 (mean: 31.6) months. Immediate improvement was noted in 10 patients, and five of them had sustained this improvement at the time of the last assessment. A more pronounced improvement was observed for gait, relative to speech and abnormal movements. No significant morbidity related to the procedure was observed. We conclude that dentatotomy is a safe procedure that should still be considered in specific cases.

They review the cases reported in the literature, and present a mechanistic hypothesis about how dentatotomy influences motor tonus, in light of the current knowledge about cerebellar physiology. We believe that this issue is critical for the development of alternative surgical approaches targeting the cerebellum, such as chronic electric stimulation ¹⁾

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Teixeira MJ, Schroeder HK, Lepski G. Evaluating cerebellar dentatotomy for the treatment of spasticity with or without dystonia. Br J Neurosurg. 2015 Mar 31:1-6. [Epub ahead of print] PubMed PMID: 25825325.

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