How Does Torticollis Originating From the 11th Nerve Relate to Dystonia, and How Does this Affect Treatment? Our Experience With 32 Patients.

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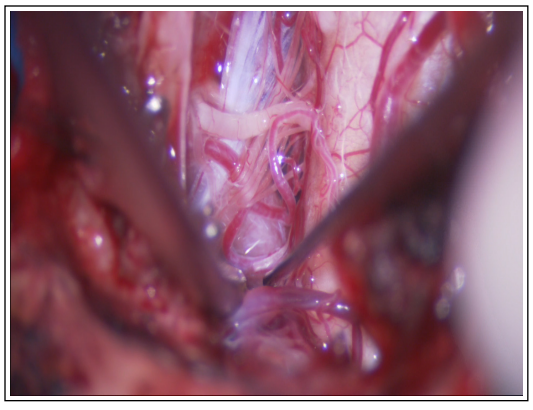
Learning Objectives

Participants should be able to: 1) evaluate CD for possible treatment with microvascular decompression and selective rhizotomy. 2) Discuss benefits and limits of current nomenclature. 3) identify the best suitable treatment



Introduction

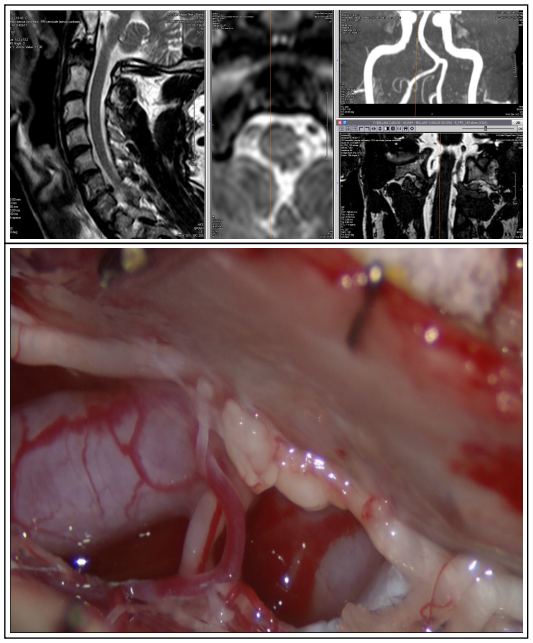
Torticollis is defined by official nomenclature as Cervical Dystonia (CD) and is related to a dysfunction of the basal ganglia.

Despite contemporary Authors favor treatment by DBS surgical approaches targeting the 11th nerve and its rami also yield positive results. This form of treatment is based on previous surgical experience and from insights gained from studies on vascular conflicts. Many patients have been operated focusing on the 11th nerve. If we consider peripheral denervation alone, more than 2000 have been treated during the last thirty years.

Our experience suggests that torticollis of 11th nerve origin represents a special entity which benefits from selective intradural rhizotomy and microvascular decompression on the affected side.

Methods

Patients were selected if they had a preeminent involvement of a SCM on one side. Clinical observation and EMG recording had to confirm a hyperactivity on this SCM with lack of inhibition when activating the controlateral SCM. We studied by MRI the intradural transition of vertebral artery (VA) and possible conflict with the 11th nerve, especially the McKenzie branch, or the 1st cervical root.

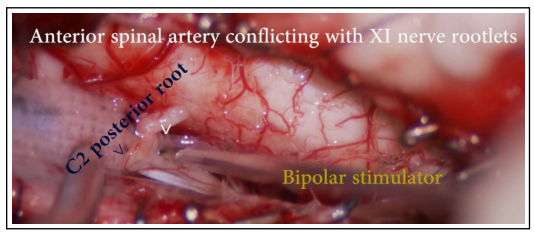


Results

We always found a vascular conflict between the VA and the 11th nerve, in 13 cases with the McKenzie branch. Significant changes were obtained with regards to deformities, disabilities and pain score on Toronto Western Rating Scale (TWTRS) scale. The range of motion widened and patients regained the ability to turn against the previously affected SCM (ANOVA, $P < 0.01$). Results will be documented by intraoperative recording in relation to preoperative clinical state and outcome.

Conclusions

Our observation confirms that there are cases of CD due to 11th nerve damage and that surgery based on this premise was successful. If other observers confirm these findings, we should consider a different nomenclature to guide surgery.



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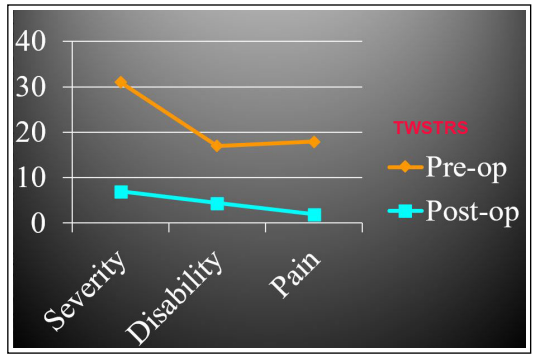

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