

C.07**Trigeminal neuralgia due to dolichoectatic vertebrobasilar artery compression: a 20 year experience**

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Background: Trigeminal Neuralgia (TN) is rarely caused by a dolichoectatic vertebrobasilar artery (eVB) compression of the trigeminal nerve. These patients present a surgical challenge and are often not considered for microvascular decompression (MVD) due to assumed risk. We present our experience demonstrating the technique and outcomes of MVD in these patients. *Methods:* A retrospective chart review of patients who were surgically treated by the senior author between

1997 and 2016 with an admitting diagnosis of TN was performed. Patients with pre-operative neuroimaging demonstrating eVB compression of their trigeminal nerve root were included. *Results:* During the 20-year review, 552 patients underwent microvascular decompression for TN and 13 (2.4%) had dolichoectatic vertebrobasilar compressions (10 male, 3 female). The average hospital length of stay was 2.8 days (Range 2-7) with no major complications. At final follow-up (>2 years): 7 had no pain with no medications (78%), 2 had persistent pain (22%) – one of which underwent a successful glycerol rhizotomy at 8 months, 2 were lost to follow-up, and 2 had surgery within 2 years. *Conclusions:* Microvascular Decompression for Trigeminal Neuralgia caused by a dolichoectatic vertebrobasilar artery can be performed with a high rate of safety and success in the setting of a high case volume centre.

POSTER PRESENTATIONS**GENERAL CATEGORIES****GENERAL NEUROLOGY****P.001****Transient neurapraxic radiculopathy**

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Background: Neurapraxia is considered to be a temporary disorder of peripheral nerve conduction due to trauma that does not cause axonopathy. However, patients with radiculopathy, confirmed by MRI, who may not have active axonal damage with evidence of spontaneous activity may still report transient give-way weaknesses. In the absence of active changes on intramuscular recording a neurophysiologic consultation may fail to substantiate any significant neurologic concern. This report documents and objectifies prone positioning-induced radicular neurapraxic weakness in an elderly man. *Methods:* An 83-year-old gentleman was referred for neuromuscular evaluation with regards to peripheral neuropathy. He had a history of low back pain and MRI evidence of multilevel DDD and discogenic neuroforaminal narrowing. Strength testing was performed by Biodex evaluation. Routine electrophysiologic assessments were performed. *Results:* On neurologic examination proximal strength was normal with grade 4 dorsiflexion strength. Stocking-glove loss to pinprick was absent. Preliminary objective testing of the right quadriceps revealed a peak torque of 87.1 Nm. Immediately after lying prone for 3 minutes (for paraspinal EMG), his power dropped to 33.7 Nm. Strength fully recovered by 36 hrs. *Conclusions:* This case documents evidence of a 61% reversible reduction in torque in the right quadriceps after prone lying. Electromyographers need to be cautious with radiculopathy patients during paraspinal testing.

P.002**Improving the quality of systematic reviews of neurological conditions with more accurate search strategies: a series of validation studies**

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Background: A well-constructed search strategy is an important feature of any systematic review. We aimed to design and validate electronic database (e.g. Pubmed) search strategies (i.e. a hedge or series of words used to identify articles of interest) for six neurological conditions. *Methods:* We enumerated 10311 consecutive articles in the 21 highest impact factor English-language general neurology journals. We constructed a simple hedge, limited to one keyword, for each condition. We also constructed a complex hedge using a series of MeSH terms and keywords. Two reviewers independently reviewed (confirmed by a third reviewer) all articles and established which condition(s) were the article's subject. We calculated sensitivity/specificity estimates for the simple and complex hedges, and compared these using McNemar's test. *Results:* The results are summarized in the Table. *Conclusions:* Our complex hedges for most conditions dramatically improve sensitivity without compromising specificity. This study will help improve the accuracy of search strategies in future systematic reviews.