Understanding botulinum toxin type A action in obstetric brachial plexus injury

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Keywords: Obstetric brachial plexus injury; Botulinum toxin

Background.– The off-label use of botulinum toxin type A (BTX-A) has been described in the last decade as an adjunct to conservative treatment of obstetric brachial plexus injury (OBPI), a peripheral nervous system condition. The aim of this work is to better understand BTX-A’s action in OBPI.

Methods.– A search through Medline using the keywords “botulinum toxin” and “brachial plexus” was performed; textbooks were consulted.

Results.– In OBPI denervation and aberrant innervation (axonal splitting and aberrant nerve outgrowth) take place, enabling the occurrence of muscle co-contractions. It has been proposed that the use of BTX-A in normal antagonist muscles can facilitate agonist’s function and allow adequate synergistic motor patterns. Additionally, BTX-A may help decrease the imbalance between muscle groups and prevent contractures.

Discussion.– A better comprehension of muscle groups’ functions and synergistic motor patterns is useful to correctly select muscles which would potentially benefit from BTX-A infiltration.

References

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Carpal tunnel syndrome in diabetic patients: Clinical, electrophysiological and sonographic study

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Keywords: Carpal tunnel syndrome; Electrophysiology; Ultrasonography; Median nerve cross section area

Background.– To study the correlation between the clinical, electrophysiological and sonographic findings of carpal tunnel syndrome (CTS) in diabetic patients.

Patients.– This study included 18 patients with diabetic neuropathy and 18 patients with clinical criteria of CTS. As a control, 20 subjects with matched age and sex were included.

Methods.– All cases were examined clinically and electrophysiologically (for median, and ulnar nerve conduction). Sonographic examination of median nerve and carpal tunnel was done.

Results.– There were statistically significant differences between the three groups as regards median nerve CSA; group 1 patients had larger CSA in comparison to group 2 and control group. In group 1, 17 patients (94.4%) had positive electrophysiological results of CTS while by US only 15 patients (83.3%) had increased median nerve CSA. There was a positive correlation between clinical and electrophysiological grading results. In group 2: four patients had positive electrophysiological results of CTS. Seven patients had increased median nerve CSA by U.

Conclusions.– In diabetic patients with suspected CTS, ultrasonographic assessment of the median nerve cross section area is a highly sensitive screening tool.

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Axillary nerve palsy occurring after herpes zoster infection

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Background.– Herpes zoster, varicella infection settled after the dorsal root ganglia silent reactivation of varicella zoster virus develops. Herpes zoster is very rare after the engine is affected by.

Results.– A 37-years-old male patient with right shoulder 2 weeks ago with a diagnosis of herpes zoster rash and painful lesions who received treatment in dermatology. Decreasing the patient developed rash, weakness in the right shoulder. Examination of the shoulder abduction: 45-adduction 15-fleksiyon 70-ekstrenal rotation 80 degrees. EMG: accompanied by signs of denervation of the right brachial plexus upper trunk, and lower middle trunk denervation was detected at an advanced level mildly inspiring interplay, Fes-is-hot pack to the patient and the exercises performed during the 4-week period. Examination of the shoulder after treatment abduction: 70-adduction 15-fleksiyon 180-ekstrenal rotation 30-internal rotation 75-ekstrenal rotation 80 degrees.

Discussion.– Motor during the course of herpes zoster and its complications may impair the patient’s quality of life should be noted that at an advanced level. This is not only for cases of shingles, postherpetic neuralgia should be followed closely for complications.

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