

TREATMENT OF DYSTONIAS WITH BOTULINUM TOXIN TYPE A (Abstract)*. Thesis. São Paulo, 1994.

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Botulinum toxin is produced by the anaerobic bacteria *Clostridium botulinum*. This toxin blocks cholinergic muscle end-plates by means of inhibiting the release of acetylcholine from the pre-synaptic vesicles. Type A botulinum toxin is the most potent of the eight serotypes known to date. Intramuscular injections of type A botulinum toxin has been employed as a treatment for focal dystonias and other hyperkinetic movements. In this prospective study, 114 subjects with distinct types of dystonia underwent 310 treatment sessions..

The comparative analysis of different clinical presentations suggests that the latency time for a clinical response and latency time for maximal clinical effectiveness may have an inverse relationship with the intensity of the clinical response and its overall time duration. These variables seem to behave in an interconnected fashion and are probably related to the extension of muscle mass submitted to a chemical denervation by botulinum toxin.

Nearly 90% of subjects with blepharospasm, 78% of patients with cranial dystonia and 66% of patients with cervical dystonia presented a satisfactory response to treatment. The other clinical presentations such as axial, generalized, hemidystonia and writer's cramp showed variable degrees of clinical responses.

Longitudinal analysis of the overall clinical response suggests that clinical effectiveness is maintained even after several treatment sessions. However, in some cases, the recorded time length to obtain maximal therapeutic effects shows a clear tendency to increase after successive injections of the toxin. This phenomenon seems to be related to the sprouting of collateral axons and newly developed motor end-plates as a consequence to functional denervation brought about by botulinum toxin.

Side effects were usually mild and recorded in 17% of the 154 injections sessions involving the periorbicular region and 25% of the 121 injections sessions involving the cervical region.

Intramuscular injections of botulinum toxin type A as a treatment modality is safe and nowadays considered to be the first choice for the treatment of localized dystonias.

KEY WORDS: botulinum toxin type A, dystonias, localized dystonias, treatment.

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