Botulinum Toxin in the Treatment of the Synkinesis Associated with Facial Paralysis – Preliminary Report

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Abstract

Background: Botulinum toxin (BTXA) injection in the non-paralyzed side (NPS) promotes 48.4% reduction of asymmetry after 1 month and 16.8% after 6 months, improves function of the paralyzed side (PS) and quality of life (1). Synkinesis are frequent in these patients and treatment not consensual (2,3). We propose a treatment for synkinesis using BTXA in the PS with three years follow-up.

Method: Since 2003 we followed 162 facial paralysis patients performing BTXA applications in the NPS every 6 months for symmetry. From this group, 33 patients with synkinesis were selected, average age 39.7 years. All of them presented the oculo-oral synkinesis. In 12 there were also other types: oro-ocular, oro-oral etc. BTXA points in the NPS followed published protocol(1). Not all synkinesis were necessarily treated, predefined criteria were observed: deepening of the PS naso-labial fold, intensity of contraction and patient's complaint. The dosage needed for synkinesis management, adverse effects and satisfaction were evaluated and compared to traditional treatment.

Results: BTXA dosage used in the PS ranged from 2 to 18 units (U), average 4.4U/session, compared to average 38U/session on the NPS. Muscle groups more often treated were the zygomaticus and risorius. Treatment points used 1 (21.2%) or 2U (76.5%). There was no increase in side effects frequency (64% temporary difficulty to speak, eat or drink).

There was partial improvement of synkinesis in 92% and complete improvement in 8%. The goal is to weaken the muscles, without complete paralysis. There was progressive improvement of symptoms during subsequent sessions.

Conclusions: We didn’t find reports treating synkinesis in the way presented, with low doses BTXA injection in the middle and lower thirds of the PS. The technique presented favorable results, with satisfactory control of involuntary movements, without increasing the frequency of adverse effects and greater patient satisfaction when compared to traditional treatment.

References

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Disclosure

None of the authors has any kind of conflict of interest, or a financial interest in any product or drug mentioned in this manuscript.