Botulinum toxin therapy in delayed facial nerve palsy developing after vestibular Schwannoma resection

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Aim: To evaluate the efficacy of Botulinum Toxin Type A (BTA) in patients with Delayed Facial Palsy (DFP) developing after Vestibular Schwannoma Resection (VSR).

Patients & Method: The study included 33 patients with DFP, which developed ≥72 hours after VSR. Group-1 consisted of 18 patients who received BTA injections (40-50 IU, 10-15 points of injection). Group-2 consisted of 15 patients who received Prednisolone 1 mg/kg per day (5-7 days). House-Brackmann scale was used for the assessment of facial nerve palsy severity.

Result: DFP typically developed on day 11-15 after surgery in 44.4% and 46.7% of patients in groups-1 and 2; less commonly on day 6-10 in 33.3% and 33.3% and on day 3-5 in 22.3% and 20.0% patients in groups-1 and 2 respectively. Before treatment a mild facial nerve dysfunction was observed in 50.0% of patients in group-1 and 53.3% of patients in group-2, moderate dysfunction in 33.3% and 33.3% and moderate to severe dysfunction in 16.7% and 13.4% of patients in groups-1 and 2, respectively. After 3 months of treatment complete recovery of facial nerve function was observed in 83.3% and 93.3% of patients in groups-1 and 2, respectively. Mild facial nerve dysfunction remained in 11.1% and 6.7% of patients in groups-1 and 2, respectively and moderate facial nerve dysfunction in 5.6% of patients in group-1.

Conclusion: BTA injections may be recommended for the treatment of patients with DFP to attenuate facial asymmetry and to improve functional recovery.

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