

Blepharoplasty yes or no? A single-center study on the influence of blepharoplasty on treatment with botulinum toxin injections

*Assunta Trinchillo*¹, N. Cuomo¹, F. Iorillo², G. De Joanna², F. Habetswallner², M. Esposito²

¹Department of Neurosciences, Reproductive Sciences and Odontostomatology, “Federico II” University, Naples, Italy

²Clinical Neurophysiology Unit, Cardarelli Hospital, Naples, Italy

Background: Blepharospasm (BS) is a focal dystonia that can be treated with botulinum toxin (BoNT) injections [1-2]. However, some poor responder patients resort to upper eyelid surgery (blepharoplasty) in order to improve their symptoms.

Objectives: To compare the responses to the BoNT injections of both groups of patients (Blepharoplasty YES/NO), in order to clarify if the surgery may improve the response to BoNT.

Methods: We collected data of 60 BS patients [3], and we divided them into two groups – blepharoplasty YES (8) and NO (52). Patients who underwent to surgery were operated on at least 3 years before this assessment. Then, we compared their demographic – age, sex – and clinical data – age at onset, disease duration, duration of the treatment with BoNT.

Therefore, we assessed the level of disability through the Blepharospasm Disability Index (BSDI) [4] and the severity of BS through Jankovic Rating Scale (JRS) [5] in two times - before the BoNT injections and after 4 weeks. Finally, we compared the differences between their scores (post BoNT – pre BoNT).

Results: Groups did not present any significant differences in terms of demographic and clinical data. BSDI and JRS differences of scores were significantly higher in non-operated patients. Therefore, improvement after BoNT was higher in non-operated patients.

Conclusions: Blepharoplasty does not provide a long term benefit in patients with BS since they present severe dystonia and few years after surgery response to BoNT injections is poor.

References:

- [1] Trinchillo et al. The impact of the reclusion on patients with blepharospasm during the COVID19 pandemic Clin Neur and Nerurosurg (2022) doi: 10.1016/j.clineuro.2022.107363.
- [2] G. Defazio et al. Blepharospasm 40 years later Mov. Disord., Vol. 32 (No. 4) (2017), p. 2017, 10.1002/mds.26934.
- [3] G. Defazio et al. Diagnostic criteria for blepharospasm: A multicenter international study Park. Relat. Disord., 91 (2021), pp. 109-114, 10.1016/j.parkreldis.2021.09.004.
- [4] Goertelmeyer S et al. The Blepharospasm Disability Index (BSDI) for the assessment of functional health in focal dystonia. Clin Neurophysiol 2002;113(Suppl 1):S77-S78.
- [5] Jankovic J et al. A toxin for cranial-cervical dystonia: a double-blind, placebo-controlled study. Neurology 1987;37:616-623. 9.