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Service (sector) Strabismus N° CEP

Electromyograph Assistance and Mendonça's Forceps - A comparison between 2 methods of intramuscular injection of botulinum toxin A

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Purpose: The aim of this study was to compare the outcome of the correction of large angle deviations and low visual acuity in one eye in patients using the traditional electromyograph guidance and the newly developed forceps of doctor Mendonça. **Patients and Methods:** We studied a group of 29 patients aged 14 to 66 years old assisted at the Strabismus Sector of the Department of Ophthalmology of the UNIFESP-EPM. All patients – 20 with esotropia and 9 with exotropia - had large angle deviation - greater than 40 PD - and low visual acuity in one eye - less than 0.4. Twelve (12) patients - 7 male and 5 female - were injected with botulinum A with the aid of an electromyograph, and 17 patients – 5 male and 12 female - received the toxin using the Mendonça's forceps to expose their rectus muscle belly. Prior to the intervention, all patients underwent a full ophthalmologic examination and had their dosage of the toxin calculated according to the level of convergence or divergence they presented with - 5 U for deviations until 50 PD, and 7.5U for greater deviations. All patients were locally anesthetized with drops of proximetacaine hydrochloride at 0.5 %. Follow up examinations were performed on the seventh and fourteenth days after botulinum toxin injection. The Friedman and Mann-Whitney correlation tests were used in the statistical analysis of the study data. **Results:** There was a significant correlation between the pré-deviation (mean deviation 66.4) and the pós-deviations seventh day (18.9) and fourteenth day (18.6) ($p=0.005$) in patients that received toxin using the electromyograph. There was no significant correlation between the seventh and the fourteenth day. In patients that received toxin using the Mendonça's forceps we had the same results: there was a significant correlation only between the pré-deviation (68.1) and the pós-deviation seventh day (31.8) and fourteenth day (26.3). There wasn't significant correlation between the two methods in the follow up of seventh and fourteenth day. **Conclusion:** Both techniques yielded equivalent outcomes.