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Service (sector) Strabismus N° CEP

### **Use of Botulinum Toxin in the Treatment of Large Angle**

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Purpose: the use of Botulinum Toxin (BT) in treatment of strabismus is becoming more frequent. In this paper we evaluate the use of BT associated with surgery to treat large angle deviations in patients with low visual acuity in one eye, in order to operate only the non-fixing eye. Patients and Methods: in a prospective study we selected patients with large angle deviations (greater than 60° to esotropias and greater than 50° to exotropias) and severe low visual acuity (inferior to 20/40) in one eye, not related to palsy or paresis of any extraocular muscle and no history of ocular surgery. First they underwent injection of BT in the tight muscle (5U - deviations until 50° ; 7,5U - deviations greater than 50°) using the Mendonça's forceps or the electromyograph in some cases. They were followed up to 3 to 4 months after BT (at least three examinations), until the deviation stabilized, when the remaining deviation was operated on. They underwent regular post-operative follow up. We considered good result a minimum deviation reduction at the end of BT follow up of 15°, if that reduction enabled us to operate on only the non-fixing eye, no matter what was the post-operative result. Results: from a total 19 patients, 6 abandoned the regular follow up and were quitted from the study. From 13 patients with regular follow up, there were 9 esotropes and 4 exotropes with a mean deviation of 74.6° (45 to 85°). At the end of BT follow up period the mean deviation reduction was 22.3 ranging from 5° to 50°. We achieved 9 good results (69% of our cases) after BT injection (5 esotropes and 4 exotropes) and 4 cases in which the BT was not good enough. After surgery 10 cases remained with a deviation lesser than 15° and 3 still presented a medium deviation of 23.3°. The follow up after surgery ranged from 7 days (one patient) to 14 months. The mean post-op follow up was 3,6 months. Conclusions: the injection of BT appeared to be valuable in reducing the deviation, allowing us not to operate on the fixing eye of these patients, as well as to perform less aggressive surgery.