Timing of surgery for unilateral congenital ptosis

FM Quaranta-Leoni[1, 2], S Sposato[1, 3], A Leonardi[2], L Iacoviello[4], S Costanzo[4]

[1]*Orbital and Adnexal Service, Department of Ophthalmology, Villa Tiberia Hospital, Rome, Italy,* [2] *Oftalmoplastica Roma - Rome, Italy,* [3]*Department of Ophthalmology, IRCCS Neuromed - Pozzilli (IS), Italy* [4]*Department of Epidemiology and Prevention, IRCCS Neuromed - Pozzilli (IS), Italy*

Aim: To analyze the cosmetic and functional results of a series of patients with unilateral congenital ptosis who underwent levator resection, to compare the outcome of surgery according to the age of intervention, and to evaluate the chance of ptosis recurrence in different age groups.

Matherial & Methods: Case series. Analysis of the clinical charts of 44 patients who underwent a unilateral levator muscle resection under the care of one surgeon from February 2000 to March 2012. Age at the time of surgery ranged from 2.1 to 12 years. The study population was divided into different groups according to the age of surgery. Preoperative evaluation included measurements of upper eyelid margin reflex distance (MRD1), levator function, frontalis function and complete extraocular motility examination.

Results: The patients' follow-up ranged between 2 and 12 years. The outcome of surgery was more satisfactory (MRD1 increase: $p < 0.002$) and the increase of levator function was better ($p < 0.0001$) when surgery was performed in children aged 2 to 4. No ptosis recurrence was observed in children aged 2 to 4, as opposed to 6 (22%) children of other groups ($p = 0.067$).

Conclusion: Unilateral levator resection effectively reduces the asymmetry between eyelids. The age of the operation appears to influence the outcome of surgery, as in this series cosmetic and functional results are better and the rate of ptosis recurrence is lower if the child is operated before the age of 4.