

## Essential Infantile Esotropia: Postoperative Sensory Outcomes of Strabismus Surgery.

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### **Abstract**

#### **BACKGROUND:**

The optimum age for Essential Infantile Esotropia surgery is a controversial subject. Sensory status was evaluated in patients who underwent surgery at different ages in a retrospective study. The setting of the study is the ophthalmology department of a teaching hospital.

#### **METHODS:**

Different clinical characters were analyzed pre- and postoperatively; nine different surgeries were performed. A total of 188 patients presented valid postoperative sensorial data, divided in two groups: surgery at  $\leq 2$  years (n=69) or  $> 2$  years (n=119). Sensory status was dichotomized in binocular single vision (BSV) and exclusion. Univariate differences were assessed with the chi-square test (or Fisher exact test). To identify the independent role of factors associated with the sensory status, all variables showing in univariate analyses a significant association ( $p < 0.05$ ) with the outcome variable were entered into a multivariate logistic regression model. All statistical tests were two-sided.

#### **RESULTS:**

Multivariate analysis confirmed that children operated  $> 2$  years were 0.4 times less likely to obtain BSV compared with children operated at  $\leq 2$  years (AOR. 0.38, 95% C.I. 0.17-0.89,  $p = 0.025$ ). Patients operated on by OO MR rec.+ OO LR res. + OO IO rec.-ap. (intervention type 6) were about 11 times more likely to have BSV than those by OO rec.MR + unilateral res. LR (operation type 2); AOR.: 10.67, 95% C.I.: 1.34 - 85.29,  $p = 0.026$ ). Twenty-nine patients (12.1%) operated at  $\leq 2$  years of age underwent a reoperation, compared to 33 (8.6%) who underwent surgery after two years ( $p > 0.05$ ).

#### **CONCLUSIONS:**

Our findings suggest to perform EIE surgery between age 1 and 2 and, when indicated, to prefer a six-muscle approach in order to achieve a better sensory function.

#### **KEYWORDS:**

Essential Infantile Esotropia; follow-up; sensory evaluation; surgical treatment