

## Eye muscle surgery for infantile nystagmus syndrome in the first two years of life.

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### Author information

### **Abstract**

#### **PURPOSE:**

To report visual and electrophysiological effects of eye muscle surgery in young patients with infantile nystagmus syndrome (INS).

#### **METHODS:**

Prospective, interventional case cohort of 19 patients aged under 24 months who were operated on for combinations of strabismus, an anomalous head posture, and nystagmus. All patients were followed at least nine months. Outcome measures, part of an institutionally approved study, included Teller acuity, head position, strabismic deviation, and eye movement recordings, from which waveform types and a nystagmus optimal foveation fraction (NOFF). Computerized parametric and nonparametric statistical analysis of data were performed using standard software on both individual and group data.

#### **RESULTS:**

Age averaged 17.7 months (13.1-month follow-up). Thirteen (68%) patients had associated optic nerve or retinal disease. 42% had amblyopia, 68% had refractive errors. Group means in binocular Teller acuity ( $P < 0.05$ ), strabismic deviation ( $P < 0.05$ ), head posture ( $P < 0.001$ ), and the NOFF measures ( $P < 0.01$ ) from eye movement recordings improved in all patients. There was a change in null zone waveforms to more favorable jerk types. There were no reoperations or surgical complications.

#### **CONCLUSIONS:**

Surgery on the extraocular muscles in patients aged less than two years with INS results in improvements in multiple aspects of ocular motor and visual function.