

2nd GLOBAL PEDIATRIC OPHTHALMOLOGY CONGRESS

June 05-06, 2017 Milan, Italy

Surgical esotropia in Down syndrome patients

Danielle Ledoux

Boston Children's Hospital - Harvard University, USA

Purpose: There is an increased incidence of acquired strabismus in the Down syndrome population, more commonly resulting in esotropia than other deviations. We performed a retrospective chart review of the Down syndrome population with esotropia who had strabismus surgery to better understand the types of esotropia seen and the surgical outcomes.

Methods: We performed a seven year (2007–2014) retrospective chart review of all patients with a diagnosis of Down syndrome who had surgery for strabismus at a single, tertiary care center. Data including indications for surgery, preoperative and postoperative sensorimotor exam, presence of anomalous head posture, and type of surgery were recorded. Postoperative exam was at least one month after surgery. Surgical success was defined using three criteria: 1) orthotropia to an esotropia of less than, or equal to 8 prism diopters in primary position, 2) improvement of anomalous head posture, and 3) no further indication for surgery.

Results: 16 patients were identified who had Down syndrome and were surgically treated for esotropia. Of these, one was excluded due to follow-up of only two weeks. Preoperative findings of the remaining 15 patients included 8 (53%) with an A-pattern, 1 (7%) with a V-pattern, 1 (7%) with a head tilt dependent esotropia, 2 (13%) who had no assessment of pattern, and 3 (20%) with no pattern to the esotropia. Anomalous head postures were appreciated in 5 (33%) patients preoperatively, resolved in 4 patients postoperatively, and persisted in 1. In addition, 2 other patients had anomalous head postures only appreciated postoperatively. Of the 8 patients with an A-pattern esotropia, 4 were treated with only a bilateral medial rectus recession, 3 (75%) of who required a second surgery. Ultimately, 7 of the 8 patients achieved successful surgical outcomes. Overall surgical success in this study was 87% (13/15). Two patients were deemed surgical failures due to persistence of anomalous head posture and esotropia.

Conclusions: Surgical success was achieved in 87% of patients with Down syndrome and esotropia. We identified an increased incidence of A-pattern strabismus in the Down syndrome population, a finding not previously noted. All the three patients who required reoperation had A-patterns that were not addressed at the time of surgery. Ultimately, 88% of patients with A-pattern strabismus achieved successful surgical outcomes. Recognition of patterns preoperatively may help guide the surgical plan.

Biography

Danielle M Ledoux is a Pediatric Ophthalmologist, specializing in management of pediatric patients with a diagnosis of Down syndrome. She has been working at the Boston Children's Hospital - Harvard University since 2007. In 2015, she completed her specialization in Pediatric Eye Care, a practice of pediatric ophthalmology and optometry in Massachusetts, USA. She has participated in significant numbers of studies both prospective and retrospective with special interest in those that pertain to the population of people with a diagnosis of Down syndrome. She also serves as a Consultant for the National Down Syndrome Society, an American non-profit organization dedicated to support of people and families as well as education of the public about Down syndrome.

danielle.ledoux@childrens.harvard.edu

Notes: