

Surgical Outcome of a Challenging Big Angle Squint in a Child

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Abstract

Case Report

Esotropia is a deviation of the eyes inward. It is the most frequent type of strabismus. The deviation may be unilateral or bilateral. It is a leading cause of amblyopia particularly in the unilateral form. The surgical management can require a single or many procedures.

Keywords: Surgical outcome, big angle, squints.

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INTRODUCTION

Congenital or infantile esotropia is a convergent nonaccommodative persistent ocular deviation of relatively large angle which develops at approximately 6 months of age [1, 2].

Management of strabismus includes correction of refractive errors, management of any co-existing amblyopia, and surgery of one or more extra ocular muscles to re-align the eyes. The benefits of surgical correction include elimination of diplopia, restoration of binocular single vision, and improvement of cosmesis and psychosocial status [3]. In the current case the great concern of the mother was the improvement of cosmesis.

CASE REPORT

A 17-month-old female child brought by her mother for deviation of the left eye since birth. She was the 4th child of 5 siblings all healthy according to her mother. She was a premature baby, born after 34 weeks of pregnancy and underwent oxygen therapy. Findings on ocular examination were: obvious esotropia of the left eye. Head turn, cross fixation and nystagmus of the deviated eye. Ocular motility was normal both eyes. The angle measured by the orthoptist was 75 Prism Diopter (PD). We performed a recession of the medial rectus and a resection of the lateral rectus in the left eye which became orthophoric and remained so after 1 year follow up.



Fig-1: Photograph of the child with left eye esotropia



Fig-2: One year after surgery before surgery

DISCUSSION

Squint surgery may require more than one operation. If the patients or their parents are not fully aware of this matter, the procedure may end up with disappointment. That is why it is very important to obtain the informed consent of the patient or his relatives before the procedure.

The aim of surgery in squint is mainly physiological that is restoration of binocular vision. The surgical correction of the deviation is the most important step in that direction. This anatomical correction aims at obtaining parallelism and a symmetrical appearance of the eyes in all directions of gaze [4].

There are several treatments for strabismus. Conservative options include prisms and orthoptic exercises; invasive treatments include surgery and botulinum toxin [5].

The surgery of strabismus in children is sometimes very tough. In one hand these young patients have to be operated under general anesthesia with a potential risk of cardiac arrest. In the other hand there is both a cosmetic and optical issue; because parents expect a good alignment of the eyes with good vision as well.

Residual esotropia is a common problem following bilateral medial rectus recession for esotropia that frustrates either surgeons or patients. Various studies have reported an incidence of 40% for this condition [6]. In the case presented here, instead of performing bilateral medial rectus recession, we rather performed the unilateral procedure. We performed a recession of the medial rectus and a resection of the lateral rectus in the left eye.

Bilateral recession of medial rectus muscle for large angle infantile esotropia (≥ 60 PD) has been described by some investigators but the literature has

reported variable success between 60 and 90% [7]. Sometimes we can experience recurrences after squint surgery. In our patient, we found no residual angle after one year follow up.

CONCLUSION

Squint is a disturbing medical condition. If not managed early and effectively, it may impede the patients' life. If the surgical route is chosen, the informed consent of the patient or his relatives must be obtained because of the possible recurrences and residual angles.

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