SAS Journal of Surgery ISSN 2454-5104
SAS J. Surg., Volume-2; Issue-1 (Jan-Feb, 2016); p-14-15
Available online at http://sassociety.com/sasjs/

Case Report

Surgical correction of a large-angle constant Exotropia

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Abstract: Exotropias are outward ocular deviation. Congenital or infantile exotropias are those present at birth or within 6 months after birth. They are very amblyogenic and alter the cosmesis of patients. If treated too late, their outcome may not be satisfactory.
Keywords: Exotropias, Congenital

INTRODUCTION

Exotropia is a type of eye deviation in which the visual axis of eyes rotate temporally. It can be intermittent; one eye intermittently drifts outward or constant [1]. Intermittent exotropia may be developed to constant and it is one of the commonest types of strabismus. Other type of exotropia includes: Congenital exotropia, an exodeviation with an onset in the first six months of life which is non resolving; Sensory exotropia, any condition that severely reduces visual acuity in 1 eye result in exotropia; Consecutive exotropia, this occurs from a surgical overcorrection of the esotropia [2]. Large-angle constant exotropias negatively impact on the way patients see themselves and are perceived by others. The benefits of surgical treatment of exodeviations in adults are well proven, not only improving a patient's psychosocial functioning [3]. Infantile exotropia is a relatively rare strabismus disorder characterized by outward deviation of one or both eyes. Onset is before age 6 months and persists beyond this age [4, 5]. It is classified as primary infantile exotropia, where patients are healthy with no evidence of systemic or ocular disease [4]. Surgical techniques for constant exotropia include bilateral recession of the lateral rectus and unilateral both lateral rectus muscle and medial rectus muscle resection.

CASE REPORT

A 19 –year-old female student presented with deviation of the right eye since birth. She was the 3rd issue of 5 siblings who did not have such a condition. She was wearing spectacles since 5 years. Her history was otherwise unremarkable. Best corrected visual acuity was 6/12 in the right eye and 6/6 in the left eye. External examination revealed an outward deviation of the right eye. Cover/uncover test confirm a unilateral exotropia of the right eye. Ocular motility found no limitation. The measurement of the deviation found 40 prism diopters. In fine, she presented a congenital primary and constant exotropic right eye. After her informed consent, she was scheduled for surgery; we performed under local anesthesia, a lateral rectus recession of 7.5 mm and medial rectus resection of 6.5 mm in the right eye. One year follow up found orthophoric both eyes.

Fig.1: Photograph of the patient with exotropia before (left) and after (right) surgery

DISCUSSION

Earlier surgical intervention affords the best chance of attaining good alignment before age 2 years,

because reoperations are common, due not only to under corrections, but also to dissociated vertical deviations or oblique muscle dysfunction [6]. The goal of surgery is to align the patient's eye to within 8 prism diopters of orthotropia. The lateral rectus can be recessed, and the medial rectus muscle resected or plicated, based on established surgical tables. Surgeons have varying preference, with different permutations all reported in the literature: bilateral lateral rectus recessions, lateral rectus recession with medial rectus resection, and even 3- or 4- horizontal muscle surgery [7, 4]. The management of large-angle exodeviations in some studies falls broadly into two surgical approaches. Large bilateral lateral rectus recessions have been selected when, the acuity was good in each eye, whereas a maximal or supramaximal unilateral recess–resect procedure was performed if one eye was amblyopic [8, 9]. The definition of a successful outcome depends entirely on the criteria used for such success. Many define satisfactory alignment as within 10 prism diopters of orthotropia; while others extend the criteria to within 15 [10, 11]. Most studies have shown that bilateral lateral rectus recession is the preferred method for management of exotropia [12]. Under or overcorrection are the most frequent complications of surgery; other complications include suture sensitivity, pyogenic granuloma, conjunctivitis, dellen formation, scar formation and diplopia [10]. In our patient, the surgical outcome was satisfactory, for her eyes became orthophoric; and one year follow up noticed no complication.

CONCLUSION

Big angle exodeviations have both cosmetic and amblyopic issue. They are also surgically challenging and can require iterative interventions.

REFERENCES

1. Alec M, Davis H; Extropia, diagnosis and management of ocular motility disorders, 3rd edition, Blackwell Science, 2001; 260-84.
2. Govindan M, Mohney BG, Diehl NN, Burke JP; Incidence and types of childhood exotropia. Ophthalmology, 2005; 112:104–108.
3. Olitski SE, Sudesh S, Graziano A, Hamblen J, Brooks SE, Shaha SH; The negative psychosocial impacts of strabismus in adults. JAAPOS, 1999; 3: 209–211.
4. Kraft SP; Selected Exotropia Entities and Principles of Management. In: Rosenbaum AL & Santiago A (eds): Clinical Strabismus Management, Principles and Surgical Techniques. Philadelphia, WB Saunders, 1999; 176-201.
5. Von Noorden GK, Campos EC; Exodeviations. In: Binocular Vision and Ocular Motility, Theory and Management of Strabismus, St. Louis, Mosby, 2002; 356-376.
6. Brodsky MC, Fritz KJ; Hereditary congential exotropia: A report of three cases. Binocular Vision Eye Muscle Surg Q, 1993; 8: 133-136.
7. Biedner B, Marcus M, David R; Congenital constant exotropia: surgical results in six patients. Binocular Vision Eye Muscle Surg Q, 1993; 8: 137-140.
8. Berland JE, Wilson ME, Saunders RA; Results of large (8–9 mm) bilateral lateral rectus recessions for exotropia. Binocular Vision Strabismus Q, 1998; 13: 97–104.
9. Currie ZI, Shipman T, Burke JP; Surgical correction of large-angle exotropia in adults. Eye, 2003; 17:334–339.
10. Stoller SH, Simon JW, Lininger LL; Bilateral lateral rectus recession for exotropia: a survival analysis.J Pediatr Ophthalmol Strabismus, 1994; 31: 89–92.
11. Schwartz RL, Calhoun JH; J Pediatr Ophthalmol Strabismus, 1980; 17: 359–363.
12. Maruo T, Kubota N, Sakaue T, Usui C; Intermittent exotropia surgery in children : Long term outcome regarding changes in binocular alignment; A study of 666 cases. Binocul Vis Strabismus Q, 2001; 16(4):265-270.