Augmented Bilateral Lateral Rectus Recessions In Comparison To Conventional Surgery in Basic & divergence excess Intermittent Exotropia

Thesis

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Summary

Intermittent exotropia is an exodeviation intermittently controlled by fusional mechanisms. Intermittent exotropia comprises about 50-90% of all the exotropia cases and affects about 1% of the general population. IXT is more common in females and majority of cases start shortly after birth and positive family history is often noticed

There are two classification systems, Burian‘s who divided IXT into four groups based upon the concept of fusional convergence and divergence and relies on measurements of the distance and near deviations, and Kushner‘s who attributed disparity between distance and near deviation in intermittent exotropia to proximal vergence after effects and to alterations in AC/A ratio.

Many etiological factors have been attributed to the development of IXT; Innovational Factors, Mechanical Factors, defective Fusion, Cortical Dysfunction, abnormal AC/A ratio, Theory of Hemiretinal Suppression and refractive errors.

As a rule during the phoric phase of intermittent exotropia, the eyes are perfectly aligned and the patient will have bifoveal fusion with excellent stereoacuity while during the tropia phase most patients will show large regional suppression of the temporal retina. Anomalous Retinal Correspondence (ARC) during the tropic phase and Normal retinal correspondence during the phoria phase has also been demonstrated in some patients.

Patients with intermittent exotropia rarely complain of symptoms, but may present with Transient Diplopia especially when fatigued, asthenopic symptoms, micropsia and diplophotophobia**.**

Assessing control of intermittent exotropia is important to determine when to do surgery and assessment can be done at home or at office using different scoring systems (3-pointoffice-based scale, PEDIG Intermittent Exotropia Control Scale, NCS and distant stereoacuity).

Treatment of IXT has included various procedures intended to facilitate binocular sensory function. Treatment may be non-surgical or surgical. Non-surgical procedures although not very effective may be used in young patients or patients with small angles. Non-surgical treatment includes mainly correction of refractive errors which is the routine primary step in treatment .Other options are; overminus lens therapy, part time occlusion and orthoptics.

Surgery is an effective method for the treatment of IXT aims to restore alignment and preserve or restore binocular function. Currently, most surgeons believe that early surgery for children is indicated to prevent progression to constant exotropia and restoration of bifixation, others are of the view that the surgery needs to be postponed for several years because IXT patients can still keep IXT and hence bifixation can be obtained. sugical procedures include symmetric lateral rectus recessions and unilateral recess/resect ,choice depends mainly on type of IXT.

Various studies found that rate of postoperative undercorrection in IXT patients is higher in older children and suggested increasing numbers of recession in these patients.

Our study included 40 patients with IXT mainly the basic type and above 12 years old, patients were divided into 2 groups, a group treated by conventional parks numbers and the other by augmented numbers. All patients were fully examined preoperative (motor and sensory using Titmus test and Worth 4 dot for far)

Surgery was done through fornix incision in both groups under general anesthesia. Patients followed for 6 months after surgery. Motor evaluation was done at 1st day, 1st week, 1st month, 3months and 6months.Sensory evaluation was done at 3 and 6months only.

The study results show that there is no significant difference in success rate between the two study groups but higher overcorrection rate in the augmented group and similar undercorrection rate between the two study groups .The study revealed also the importance of sensory assessment and effect of sensory functions on postoperative results.