

Intermittent Exotropia- Management In Current Perspective

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Management of intermittent exotropia is a great challenge for the strabismologist. Controversies do exist regarding its diagnosis and management. The most important issue about intermittent exotropia is variability of deviation which keeps the clinician puzzled. Hence various classifications are there to diagnose the magnitude and frequency of deviation, The most commonly used is the Newcastle

control score. Others are Mohny and Holmes, Burian's and Krushner's classification. Management options fall into two categories.

1. Non Surgical Management
2. Surgical Management

1) Non Surgical Management:

Non surgical methods are effective more in younger children who are at risk of overcorrection and development of monofixation syndrome after surgery.

- Refractive Correction
- Observatio
- Patching
- Minus Lenses
- Orthoptic therapy
- Botulinum toxin

Refractive correction: Significant refractive error in the form of myopia, astigmatism and even hyperopia can impair sensory fusion and promote manifest deviation in intermittent exotropia. Full correction should be given in myopic patients. In hyperops little under correction will help these patients. Also special consideration should be given to the age of patient, extent of hypermetropia and AC/A ratio.

Observation:

Observation is considered suitable option in patients with absence of reduced visual acuity or amblyopia. Studies have shown stable deviation in majority of children with observation alone but also no clinically significant improvement.

Patching: Many studies are there but results are inconsistent about benefits. Although in general, results with patching were slightly better than with observation alone.

Minus Lenses:

Over minus lens therapy induces accommodative convergence and this can be used as temporary measure to promote fusion and delay surgical correction. But over minus therapy can cause asthenopia in older children. Over minus lens therapy can be

considered as primary treatment especially in patients having high AC/A ratio and small angle consecutive exotropia after surgery.



Figure 1 : Left Exotropia

Orthoptic Therapy:

The convergence insufficiency treatment trial produced sound scientific data to support orthoptic therapy for the treatment of convergence insufficiency type of intermittent exotropia. This therapy is especially beneficial if the deviation is less than 25 prism. However duration, frequency and long term stability of these exercises is yet to be established.

Botulinum Toxin:

The botulinum toxin injection to lateral rectus muscle is another treatment option for fusional control and far and near deviation of patients with intermittent exotropia, but the shortcomings of this therapy is lack of long term studies and precise dose for particular angle of deviation and the cost.

2) Surgical Management:

No consensus is there about criteria for taking up patients for surgery but surgery should be considered if –

- a) There is increasing angle of intermittent exotropia.
- b) Worsening control or frequency of deviation.
- c) Inability to fuse and maintain stereo vision.

There is debate on the issue of preferred surgical procedure for treatment of intermittent exotropia. But following procedures are considered by different surgeons.

- (i) Unilateral lateral rectus recession
- (ii) Bilateral lateral rectus recession
- (iii) Unilateral lateral rectus recession with medial rectus resection (R and R).

When we compare bilateral lateral rectus recession with unilateral lateral rectus recession and medial rectus resection (R and R), it is seen that short come outcomes tend to be better with (R and R) procedure but better long term outcomes are seen with bilateral lateral rectus surgery. Also when comparison of success rates between conventional and augmented surgery was done, statistically significant difference

was seen favouring augmented surgery. Studies have shown that rate of successful outcome is higher in surgical group than botulinum toxin alone however results were not statistically significant. Also when comparison was done for surgery alone and surgery with binocular vision training, later was found to be more effective.

Conclusion:

The management of intermittent exotropia continues to be controversial as the evidence of efficacy of various treatments remains unclear. Surgical treatment of childhood intermittent exotropia is associated with high recurrence rates and frequent overcorrection. The natural history of intermittent exotropia has not been well studied although many cases remain stable, some cases resolve without surgery. Further rigorous studies with intermittent exotropia are indicated and there is need for standardization for parameters for measurement, motor and sensory criteria for assessment of success and minimal long term follow up in these patients.

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Elderly patients have a lower risk of steroid-induced IOP elevation

Researchers retrospectively analyzed the correlation between age and the risk of steroid-induced ocular hypertension in adults with an intravitreal dexamethasone implant. Analysis of 570 eyes from 455 patients revealed that the incidence of IOP elevation decreased with advancing age, with patients younger than 51 years old having a significantly higher risk than older patients. The researchers conclude that steroid treatment may be safer in older patients and recommend caution when prescribing steroids to younger patients. *British Journal of Ophthalmology, September 2020*