OCULAR ALIGNMENT AFTER BILATERAL RECTUS MUSCLE RECESSION FOR INTERMITTENT EXOTROPIA.

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Background:

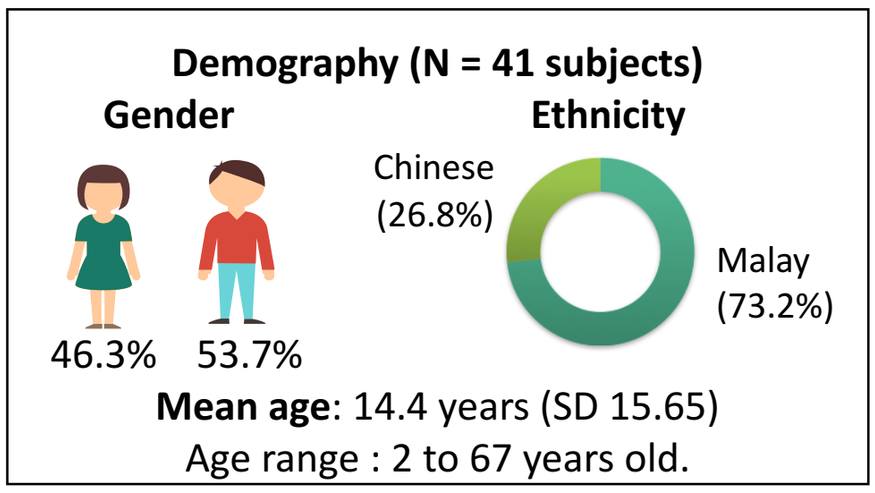
Intermittent exotropia is a common type of strabismus among Asians[1] where there is an intermittent outward deviation of the eye, that could occur in either one eye or alternates between eyes.

Aim:

To assess postoperative motor success and to evaluate changes in the deviation angle over a 12-month period following surgery in patients who underwent bilateral lateral rectus recession (BLR) for Intermittent Exotropia.

Methodology:

Retrospective cohort study of patients who underwent BLR performed by a single surgeon in Hospital Selayang from January to December 2018.
Demographic details, pre and post operative measurements of exotropia angle were recorded at one, six and twelve months.
Patients were assigned based on their motor success. A post operative ocular deviation angle of orthophoria, exodeviation or esodeviation of less than 10 prism diopters (PD) was classified as success while the remaining subjects were assigned to the failure group.



Result:

Table 1. Preoperative and postoperative angles of deviation in intermittent exotropia and statistical differences between each follow-up

	Preop	1 month	6 month	12 month
Total PD	39.21 ± 15.15 (20 to 86)	7.48 ± 9.04 (-10 to 30)	7.00 ± 8.71 (-12 to 25)	7.44 ± 9.56 (-12 to 25)
p value		0.533	0.349	

The plus numbers represent exo-deviation and the minus numbers represent eso-deviation. *Statistically significant, $p < 0.05$.
Preop = preoperative; PD = prism diopters.

Postoperative motor success was achieved in 29 (75.6%) subjects, while 12 (24.4%) as failure group (recurrence in 22.0% and overcorrection in 2.4% subjects).
Combination surgery was not associated with a worse outcome (p=0.615). There was a good correlation between ocular alignment at 6 and 12 months postoperatively (ρ= 0.53, $P < 0.05$).
There was no significant difference in the mean deviation magnitude over a 12-month period postoperatively ($F(1.266, 50.631) = 0.227$, $P<0.001$).

Discussion:

Patients who underwent BLR demonstrated a smaller degree of exo-drift with longer period for angle stabilization[3]. We observed stability in the deviation angle within the first postoperative year, in contrast to Park H et. Al[2] that reported a significant exo-drift that occurred within the same period and stabilizes after 36 months. Our patients who presented with good ocular alignment postoperatively were lost to longer duration of follow-up, therefore we could not determine the long term post-operative exo-drift in our cohort of patients.

Conclusion:

The good success rate and stability in the ocular alignment suggests strabismus surgery as a good treatment for intermittent exotropia patients. However, longer follow-up period are needed to determine acceptable long-term surgical results.

References:

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