
: 1997 1 2000 12 13
 3.5 ± 1.1
 : 13 3 36 11 13.2 \pm 9.9 8
 : 가
 < 43(9):1718 - 1723, 2002>

가 가
 가 가
 가 1997 1 2000 12
 6 13
 1-7
 가 가 가 Krimsky
 method 가 가 가
 1 가 2 6
 가 6

< : 2001 11 26 , : 2002 9 2 >
 : 134

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* 2000 84 가 3 가 1

1 2 2 3
가 가 가 가
0.5% proparacaine(Alcaine , Alcon)
가 가 가 가 가 가
2 m 가 가 가 가 가 가
가 가 가 가 가 가
가 가 가 가 가 가
가 가 가 가 가 가
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Krimsky method

13.2 3 36 가 1
11 (84.6%)
8

13 가 6 , 7 ,
26 64 가 3 , 50.5±11.6 ,
가 가 가 3 , 가 3 ,
가 가 가 4 , , ,
가 가 가 2 1 가
2 20.5±22.2 4 84
2.9±0.3 3.5±1.1
(Table 1). 가 4 botulinum toxin
가 9 ,
가 1 1
2 1 가
가 가

Table 1. Preoperative and postoperative patient findings

Patients No.	Sex/Age	Preoperative Alignment		Symptom Duration (months)	Preop. Evaluation Period (months)	Operations	Most Recent Examination Alignment	Postop. follow-up (months)
		Distance Alignment	Duction Restrictions					
1	F/54	45° LET	AB (3-) (OD) AB (4-) (OS)	5	2	BMR Rec 8.0 mm	Orthotropia	3
2	M/26	50 LET	AB (3-) (OU)	24	2	LMR Rec 8.0 mm LLR Res 8.0 mm	Orthotropia	24
3	M/57	60 LET	AB (2-) (OU)	84	4	BMR Rec 8.0 mm	Orthotropia	6
4	F/58	30 R-hypo	UP (3-) (OD)	5	4	RIR Rec 4.5 mm	Orthotropia	3
5	F/39	40 R-hypo	UP (3-) (OD)	6	4	RIR Rec 7.0 mm	Orthotropia	12
6	M/49	45 L-hypo	UP (3-) (OS) AB (1-) (OS)	12	4	LIR Rec 6.0 mm	25 L-hypo	3
7	F/54	50 RET 9 R-hypo	AB (4-) (OU) UP (4-) (OU)	24	2	RMR Rec 8.5 mm LMR Rec 8.0 mm	8 RET	12
8	F/52	20 RET 10 R-hypo	UP (4-) (OU) AB (1-) (OU)	12	3	RIR Rec 4.0 mm RMR Rec 6.0 mm LMR Rec 4.0 mm	Orthotropia	24
9	F/56	25 ET 25 R-hypo 25 LHT	UP (3-) (OD) DN (3-) (OS)	12	4	RIR Rec 6.0 mm LSR Rec 5.0 mm	40 LET	12
10	M/35	45 RET 40 R-hypo	UP (4-) (OU) AB (3-) (OD)	36	5	RMR Rec 6.0 mm RIR Rec 5.0 mm LMR Rec 5.0 mm	25 LET	18
11	M/67	14 R-hypo 6 XT	UP (1-) (OD)	6	5	RIR Rec 5.0 mm	Orthotropia	12
12	F/64	25 R-hypo 10 XT	UP (1-) (OU)	36	3	RIR Rec. 7.0 mm RSR Res 4.0 mm & RSR Rec 2.0 mm	Orthotropia	36
13	M/46	Orthotropia	UP (3-) (OU)	4	3	BIR Rec 5.0 mm	Orthotropia No limitation at upgaze	6

R-:right, L-:left, B-:bilateral, ET:esotropia, XT:exotropia, HT:hypertropia, hypo:hypotropia, Rec:recession, Res:resection, MR:medial rectus muscle, LR:lateral lectus muscle, IR:inferior rectus muscle, SR: superior rectus muscle, SO:superior oblique muscle, AB: abduction, AD: adduction, UP: upgaze, DN: downgaze, (OU): both eye, (OD): right eye, (OS): left eye, (4-): severe limitation, (3-): marked limitation, (2-): moderate limitation, (1-): mild limitation

가 6 가 가 가 가 55% 83% 73% 16 Coats 8

Gardiner¹⁵, Lueder¹⁶

(84.6%) 8 13 11 2 1 가 가

6 6 18 (cap-
sulopalpebral fascia)
(lower eyelid retractors) Frost suture

2 3 20-22

9 3 가 가

1 (5) 가

13 3.5±1.1

2 11 (84.6%) 8

3 가 가 1 18 가

가 20.5

Metz ², Kramar ³

Sprunger ¹³

Feldon ¹⁴

가

Ruttum ¹⁷
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가
가

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= ABSTRACT =

Strabismus Surgery for Thyroid Ophthalmopathy

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Purpose : To investigate the result of strabismus surgery for thyroid ophthalmopathy.

Methods : This retrospective study included 13 patients with strabismus due to thyroid ophthalmopathy. These patients underwent strabismus surgery with intraoperative adjustable suture technique under topical anesthesia in the period between January 1997 and December 2000. Mean postoperative follow-up examination period was 13.2 ± 9.9 months.

Results : Eleven of thirteen patients (84.6%) had heterotropia less than 8 prism diopter at last postoperative follow up examination.

Conclusions : With relatively short period of preoperative examination, we achieved satisfactory surgical outcome for the treatment of strabismus due to thyroid ophthalmopathy.

J Korean Ophthalmol Soc 43(9):1718-1723, 2002

Key Words : Intraoperative adjustable suture, Strabismus surgery, Thyroid ophthalmopathy

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