

**Transactions International Strabismological Association
1966, Giessen
(symposia held in connection with the 20th International Congress of Ophthalmology,
Munich, August 14-19, 1966)**

The social importance of amblyopia. The possibilities of early detection Franceschetti A, Franseschetti AT, Hudson-Shaw S.	1
Differential diagnosis of the different syndromes of functional amblyopia Thomas CH.	8
Methods and results in examination of fixation in amblyopia Avetisov ES.	14
On amblyopia – its definition and the results of the treatment Yamashita T.	20
The aetiology of strabismic amblyopia in relation to the problem of its therapy Castanera A.	31
Physiopathology of amblyopia as basis of its treatment Arruga A.	33
Classification of amblyopia Von Noorden GK.	39
Comparison of the results of static and kinetic perimetry in the central region of the visual field of the amblyopic eye Francois J, Verriest G, Verluyten P.	45
White and colour visual fields and scotometry – possible difference between amblyopias of different etiology Sato O.	51
Importance of additional factors for indication or prognosis of amblyopia treatment Gortz H.	56
The significance of nystagmoid movement in amblyopia Gillies WE.	60
Problems of organic lesions in functional amblyopia Sachsenweger R.	63
Prophylaxis and therapy of amblyopia Bangerter A.	67
Round table: session 1	73
Treatment of amblyopia with and without foveal fixation Ayberk N.	80
Persistent amblyopia Fletcher MC.	84
Surgery for eccentric fixation displacement Sevrin G, de Corte H.	89
Results of treatment of concomitant squint amblyopia with eccentric fixation by squint operation and occlusion of the fixing eye Mortada A.	98
Examples of binocular therapy in cases of early amblyopia Lyle TK.	104
An evaluation of successes and failures (indications and contraindications) or orthoptics and pleoptics Awasthi S.	113
Round table: session 2	120
Report of working group III (International Strabismus Society) Lyle TK.	128
The aetiology of motor disturbance of squint Wybar K.	130
Sensori-motor examination of the infant Costenbader FD.	134

Analysis of the motor situation in strabismus Adelstein F, Cuppers C.	139
Alteration of the angle of anomaly dependent on the direction of gaze Aust W, Detterming W.	149
The utility of orthoptics in the diagnosis and the treatment of strabismus Vancea P, Ratiu E.	158
Diagnostic errors in the evaluation of retinal correspondence by various tests in squints Bagolini B.	163
Dissociated vertical anomalies Brown NW.	175
Contribution to the sensory and motor status of strabismus and to the choice of proper conservative and surgical measures Raab-Sternberg A.	180
An evaluation of objective methods in the measurements of strabismus on the operating table versus pre-operative objectives and subjective methods Schillinger R.	186
An evaluation and comparison of the Hess chart, Lees screen and Lancaster red-green tests in parietic strabismus Pratt-Johnson JA.	189
Sources of errors by exclusive use of the Hess screen Schmidt-Hofmann-Friemel E.	196
Use of prisms in the diagnosis of retinal correspondence and of the eye-hand relation Arentsen J.	204
Round table: session 3	209
Evaluation in small angle strabismus or microtropia Lang J.	219
An evaluation of the significance of the refractive state both pre and post operatively Romaine H.	223
The examination of retinal correspondence by the method of projected after-images Wilczek M.	227
Visual acuity under low luminosity (dynamic visual acuity) in strabismic amblyopia Verin PH, Rougier-Houssin J, Le Rebeller MJ, Pincon F.	230
Flash Haploscope Siebeck R.	237
Examination of binocular vision in polarised light Pigassou R.	240
Phase difference haploscopy for investigation of strabismus Aulhorn E, Kreuzer W.	245
Synoptophore in space compared with other methods Breitenmoser R.	252
Stereoacuity as an indicator of bifixation Parks MM.	258
Round table: session 4	261
Report on the deliberations of working group 1 (Terminology, standardisation of the language of communication) Linksz A.	267
Some considerations on the pathophysiology of anomalous correspondence in relation to its treatment Pasino L, Maraini G.	284
The treatment of strabismus in Sweden Aurell G.	289
Suppression and inhibition in therapy Hamburger FA.	294
Methods of treatment in free space of ARC Hugonier-Clayettes S.	297

Surgical orthoptics	302
Knapp P.	
The influence of the operative overcorrection of an esotropia on abnormal retinal correspondence	307
Hugonnier R.	
Purposeful overcorrection in exotropia	311
Cooper EL.	
Overcorrections in exotropia surgery	319
Dunlap EA.	
An evaluation of the use of prisms in the postoperative orthoptic care of divergence strabismus	324
Laws HW.	
The role of orthoptics in the evaluation and treatment of intermittent exotropia	331
Asbury T.	
Prisms: their therapeutic use in strabismus	339
Berard PV.	
An evaluation of treatment and management of squints with relation to Pakistan	345
Wania JH.	
Practical implications of the present knowledge about subjective space in anomalous correspondence	347
Ciancia AO.	
Round table: session 5	351
Effectives of orthoptics during the postoperative period	360
Carbajal UM.	
An evaluation of bifocals and orthoptics in the treatment of esotropia with abnormal accommodation-convergence ratio	367
Caldeira JAF.	
Miotics in the diagnosis ad treatment of convergent strabismus	371
Chamberlain W.	
Phospholine iodide as an orthoptic tool	375
Gonzalez C.	
An evaluation of successes and failures of orthoptics	384
Limon de Brown E.	
The criteria of recovery	388
Jonkers GH.	
The value of orthoptics in the treatment of paralytic strabismus	392
Tsamparlakis J.	
Round table: session 6	396
Report of working group II	404
Thomas CH.	
An evaluation of the present status of medical and surgical treatment of exodeviations (clinical and etiological considerations)	409
Agundis TM.	
An evaluation of the present status of medical and surgical treatment of exodeviations	413
Palomino Dena F.	
Considerations on postoperative diplopia	417
Focosi M.	
Study of ocular myopathy	420
Maruo T.	
Contribution to the genesis of strabismus	426
Molnar L.	
Psycho-pedagogic aspects of observation and treatment of strabismic and amblyopic patients	431
Moutinho H, Dos Santos J.	
The incidence of postoperative diplopia in older children (above the age of 9) and adults	435

Nawratzki I. The role of contact lenses in the management of strabismus	441
Schlossman A. Evaluation of modern methods of diagnosis and treatment of squint with special reference to conditions obtained in India	445
Talwalkar VS. Optical overcorrection of the manifest hyperopia in cases of convergent strabismus	449
Rethy I. Orthoptics and pleoptics in Thailand	455
Dumavibhat P. Round table: session 7	456

**Transactions 3rd International Strabismological Association
1978, Kyoto, Japan**

Welcoming remarks	xiii
Ciancia A.	
Opening address	xv
Tuge T.	
Opening ceremony	xvi
Awaya S.	
Bielschowsky lecture	xvii
Jampolsky A.	
Normal, deprived and congenitally abnormal geniculocortical pathways	1
Guillery RW.	
Development of the geniculocortical pathways	11
Sherman SM.	
A primate model for amblyopia	23
Von Noorden GK.	
Stimulus vision deprivation amblyopia in humans	31
Awaya S.	
A new method of oculography	45
Huber A, Meyer E.	
Saccadic velocity studies with mechanical restriction of ocular mobility	53
Metz HS.	
The cover test	61
Pigassou-Albouy R, Jones ST.	
Prototype of an ophthalmotrope	67
D'Esposito M, Cennamo F, Cennamo G, De Franciscis P.	
Isometric force measurements from the horizontal muscles in exodeviations	73
Strachan IM.	
Human strabismic cases suggestive of asymmetric projection of the visual pathway	79
Tsutsui J, Fukai S.	
Ocular motor anomalies in monozygotic and dizygotic twins	89
Rubin W, Helm C, McCormack MK.	
The comparative study of the incidence of unilateral amblyopia during the past ten years	97
Katsumi O, Uemura Y.	
The racial distribution of strabismus	107
Ing MR, Pang SWL.	
The significance of retraction of the globe on infraduction in certain cases of thyroid eye disease	111
Harcourt B, Mein J, Crompton J, Johnston P.	
Intra- and interindividual variation in atropine-resistant residual accommodation	117
Gregersen E, Pontoppidan J, Rindziunski E.	
Differential electro-oculography	123
Weiss JB.	
A clinical assessment of a new treatment for amblyopia	133
Watson PG, Banls RV, Campbell FW, Hess RF.	
Dynamic visual acuity and nystagmus	149
Verin P, Vildy A, Maurin JF.	
Downbeat nystagmus and strabismus	155
Reinecke RD.	
Electrophysiological analysis of congenital nystagmus before and after Anderson's surgery	159
Ohmi E, Fujita J, uboi T, Ogli K, Kani K.	
Surgical treatment of congenital nystagmus with horizontal torticollis	169
Berard PV, Mouillac N, Reydy R, Spielmann A.	

Abduction paralysis and ocular deviation Viridi PS.	177
The range of fusion in reduced monocular and binocular vision Aust W.	185
Orthoptic and prismatic treatment of congenital nystagmus Bagolini B.	191
Latent nystagmus and its etiology Ishikawa S.	203
Nystagmus blockage: classification and surgical management Schlossman A, Muchnick RS.	215
The faden operation in the treatment of congenital nystagmus Muhlendyck H.	235
Weak cycloplegia for correction of exodeviations Part 1: Rationale and selection of solutions based on depth of cycloplegia within two hours Bicas HEA, Faria-Sousa SJ, Midoricava R.	249
Weak cycloplegia for correction of exodeviations Part II: Duration of partial cycloplegia and values of the AC/A ratio Bicas HEA, Midoricava R, Faria-Sousa SJ.	271
Early surgery in intermittent exotropia Pratt-Johnson JA, Barlow JM, Tillson G.	287
The tight lateral rectus syndromes Wong GY, Young J.	297
Vertical microstrabismus with large latent deviation Hardjowijoto S.	313
Prismatic therapy for unilateral aphakia due to congenital cataract Campos C, Enoch JM, Rabinowicz IM.	319
Basic steps in the recession of the superior oblique muscle Caldeira JAF.	327
Rotating surgery in cases of severe head tilt DeDecker W, Conrad HG.	331
Indications for adjustable rectus recession Rosenbaum A, Metz H, Carlson M, Jampolsky A.	337
Planning inferior oblique muscle surgery Scott AB.	347
Action of recessions and resections when associated with Cuppers fadenoperation in esotropia. Statistical results Spielmann A, Lulan J.	355
Further experiences with muscular neurotisation in surgery of traumatic abducens paresis Aichmair H.	371
Anterior segment ischaemia following surgery on two rectus muscles Fells P, Marsh RJ.	375
Complications of strabismus surgery Almeida HC.	381
Studies on the Bielschowsky head tilt test Wanatabe Y, Mori R, Ohtsuki H.	387
Sensory adaptations to cyclodeviations Guyton DL, von Noorden GK.	399
Measurement of compensatory cycloduction by fundus photographic method Inatomi A, Terao N, Okamoto K.	405
Calibrated measurement of eye movements in lateral rectus paralysis Velez G.	415
Liquid crystal phase difference projection haploscope Yazawa K, Kato K, Kawamura M.	419
A computerised model of human ocular movements France TD, Burbank DP.	429

**Transactions 4th International Strabismological Association
1982, California, USA**

Opening remarks	xvii
Arruga A.	
Linksz award	xix
Crone RA.	
Introduction to Bielchowsky lecture	xxi
Von Noorden GK.	
Bielchowsky lecture: Ocular motility disorders in pediatric disease	xxii
Wybar K.	
Etiology of early strabismus	1
Ham O, Puentes M, Cabrera F, Hamedo D, Diaz T, Silva ML, Claramunt M.	
Gait and postural sway examinations in strabismic children with convergence excess	11
Lennerstrand G, Odenrick P, Sandstedt P.	
Microtropia: comparison of two geographically different groups	21
Cunha LAP, Caldeira JAF.	
Binocular vision and OKN asymmetry in strabismic patients	35
Flynn JT, Pritchard C, Lasley D.	
Ocular morbidity in very low birthweight infants	45
Keith CG, Kitchen WH.	
Early surgical alignment for congenital esotropia	55
Ing MR.	
Results of treatment in congenital infantile esotropia	67
Pratt-Johnson JA, Tillson G.	
Nystagmus blockage syndrome: revisited	75
Von Noorden GK, Avilla CW.	
Early medical treatment of strabismus before the age of 18 months	83
Sarniguet-Badoche J-M.	
Decreasing behavioural flexibility (of adjustment to strabismus) as the cause of resistance against treatment during first year of life	91
Rethy S, Rethy-Gal S.	
A test for predicting the effectiveness of penalisation on amblyopia	103
Wright KW, Guyton DL.	
A controlled study comparing CAM treatment to occlusion therapy	115
Nyman KG, Singh G, Rydberg A, Fornander M.	
Kids versus kittens or is a long term constant occlusion dangerous?	125
Weiss J-B.	
Pattern reversal visual evoked potentials in congenital esotropia	131
Clancia AO, Garcia HA, Cammarota A.	
Recurrent esotropia following early successful surgical correction of congenital esotropia	143
Freeley DA, Nelson LB, Calhoun JH.	
Deteriorated accommodative esotropia	149
Nakagawa T.	
Decompensated strabismus	157
Hiatt RL.	
Latency (P2) of the transient response (VECP) in different types of amblyopia	173
Haase W, Goossens H.	
Preliminary results of treatments of high AC/A with medial rectus recession	181
Zak TA.	
An evaluation of accommodative esotropias	189
Mazow ML, Kaldis LC, Prager TC.	
The use of extended-wear contact lenses in the treatment of accommodative	195

esotropia	
Calcutt C, Holland B, Mathalone B.	
The surgical treatment of combined-mechanism accommodative esotropia	203
Mittelman D.	
Deterioration in accommodative esodeviation	213
Raab EL.	
The electroretinogram in high hypermetropia	225
Meyer E, Perlan I.	
The surgical management of intermittent exotropia in adults	233
Schlossman A, Muchnick RS, Stern KS.	
Single lateral rectus muscle recession for small angle exotropia	247
Reynolds JD, Hiles DA.	
Master eye in exophoria	255
Kubo M, Tamura O.	
Surgical treatment of exotropia with poor vision	263
Velez G.	
Management of intermittent exotropia	269
Hardesty HH.	
Patterns of binocularity after surgery for exotropia	275
Wolff SM.	
Congenital, heredity downbeat nystagmus	277
Bixenman WW.	
Late onset esotropia with abducting nystagmus	291
Hoyt CS.	
Latent nystagmus, a developmental oculo-motor disorder	293
Schulz E.	
Torsional Kestenbaum procedure: evolution of a surgical concept	301
Conrad HG, de Decker W.	
Acquired nystagmus in infancy; a benign or threatening sign?	317
O'Neill JF, Chu FC, Cogan DG, Hammock MK.	
Combination of artificial divergence with Kestenbaum operation in cases of torticollis caused by nystagmus	329
Roggenkamper PR.	
Progressive, exaggerated A-pattern strabismus with presumed fibrosis of extraocular muscles	335
Fells P, Waddell E, Alvares M.	
Duane's retraction syndrome: consideration on pathophysiology and etiology	345
Huber A.	
Orbital and facial anthropometry in A and V pattern strabismus	363
Ruttum M, von Noorden GK.	
Present status of strabismus in craniofacial anomalies	371
deBrown EL, Monasterio FO.	
Vertical strabismus associated with plagiocephaly	373
Robb RM, Boger WP, III	
Electromyography in congenital familial ophthalmoplegia	379
Cibis GW, Kies R, Lawwill T, Varghese G.	
Isolated palsy of the inferior division of the oculomotor nerve: a case report and review of the literature.	391
Musarella MA, Buncic JR.	
Oculomotor paralysis in association with periorbital hemangioma	397
Palmer EA.	
Benign recurrent sixth nerve palsies in childhood: secondary to immunization or viral illness	399
Werner DB, Savino PJ.	
Similarities and differences between strabismus and amblyopia: an eye	401

movement study	
Stark LW, Ciuffreda KJ, Kenyon RV.	
Optomotor effect in esotropia under general anesthesia	429
Mitsui Y, Tamura O, Berard PV, Reydy R.	
Visually and auditory evoked saccadic reaction time in amblyopia	443
Fukushima M, Tsutsui J.	
Dynamic changes of ocular motility in the tight lateral rectus syndrome	451
Nemet P, Ron S, Gur S.	
Pursuit movement disorders and the prognosis of strabismus treatment	459
Tsutsui J, Fukai S, Kimura H.	
Efficacy of the fadenoperation	467
Conrad HG, Kluge G, Treumer H.	
Evaluation of the posterior fixation operation with saccadic velocities	483
Kushner BJ.	
Pattern appearance – disappearance VEPs in anisometropic amblyopia	495
Ohzeki T, Adachi-Usami E.	
Objective evaluation of binocularity in strabismus with VER	503
Campos EC, Chiesi C, Sargentini AD, Macellari V.	
A new approach to the objective evaluation of binocular function	511
Uemura Y, Katsumi O.	
Observation of abnormal retinal correspondence by infrared television fundus haploscope	523
Ohmi E, Kani K.	
A new instrument for the study of binocular vision and the correction of its anomalies	533
Mawas LJ, Mawas E, Weiss J-B.	
Disparity in stereotests	541
Lin LL-K, Jeng S.	
Studies on aniseikonia and stereopsis with the new aniseikonia tests	549
Awaya S, Sugawara M, Horibe F, Miura M.	
Usefulness of filters of progressive density as a diagnostic tool for some strabismic problems	561
Bagolini B.	
A comparative study of denervation and extirpation for marked inferior oblique overaction	567
Del Monte MA, Parks MM.	
Muscle imbalance in retinoblastoma: a study of 104 patients	581
Carbajal UM, Sison-Diego	
The factors determining the surgical strategy for strabismus	583
Roth A, Safran AB, Rapp B.	
The posterior fixation suture for abnormal distance/near relationship esotropia	593
Reynolds JD, Hiles DA.	
Complete superior and inferior rectus transposition with adjustable medial rectus recession for abducens palsy	599
Rosenbaum AL, Foster RS, Ballard E, Rosales T, Gruenberg P, Choy A.	
Effect of prisms on angle of strabismus	607
Veronneau-Troutman S.	
Discriminant analysis of acquired esotropia: predictor variables for short and long term surgical outcomes	609
Bateman JB, Parks MM, Wheeler N.	
The association fadenoperation – adjustable surgery	627
Spielmann A.	
Modification to the classic concept of oblique muscles global insertion	637
Bernasconi MdH, Dobsky S, Rivas E, Palma Y, Pacheco A.	
The histopathology of human strabismic extraocular muscles	643

McNeer KW. Development of the nerves of the extraocular muscles Sevel D.	645
The use of A scan ultrasonography to design the strabismus operation Gillies WE, McIndoe A.	659
Anatomical variation of the insertion of the inferior oblique muscle Emmel DK, Apt L, Foos RY.	669
The position of the eyes under general anesthesia in esotropia: the opto-motor reflex and the stretch test Berard PV, Reydy R, Jordan D.	675
Electromyographic and forced duction findings in Moebius' syndrome Strachan IM.	691
Role of temporal and nasal retina in optomotor reflex of esotropia under general anesthesia Tamura O, Mitsui Y.	699
Histopathological study on the monkey extraocular muscles under botulinum toxin injection Mukuno K, Scott AB, Ishikawa S.	707
Surgical management of deteriorated accommodative esotropia Crouch ER Jr.	711
Reversed fixation test (RFT): a new tool for the diagnosis of dissociated vertical deviation (DVD) Kommerell G, Mattheus S.	721
Surgical treatment of torsion: an objective assessment Scott WE, Gitschlag G.	729
Fundus haploscope and the measurement of cyclodeviation Inatomi A, Takahashi F, Kani K.	733
Further studies on the Bielschowsky head tilt test Watanabe Y, Mori R, Ohtsuki H, Ichikawa R, Egi K, Hitomi M.	739
Quantitative forced traction measurements in strabismus Metz HS, Cohen G.	755
Muscle injection to correct strabismus Scott AB.	767
The 1982 Costenbader lecture: special forms of comitant strabismus Lang J.	769
Measured graduated recession of the superior oblique muscle Romano PE, Roholt P.	791
Brown's syndrome following superior oblique tuck Saunders RA, Grady JL.	803
Techniques used for weakening the inferior oblique Romero-Apis D, Martinez-Oropeza S.	805
Superior oblique plication: its application and indications in early onset convergent strabismus Van Selm JL.	813
Differences between congenital and acquired superior oblique palsies Dickson JB, Calhoun JH.	815
Denervation and extirpation of the inferior oblique muscle as the primary surgical procedure in the treatment of superior oblique palsy Katz NNK.	821
Brown's syndrome in the light of graduated and overdeveloped superior oblique tendon De Decker W, Conrad HG.	829
Desagittalisation of the oblique muscles as a surgical treatment of strabismus Gobin MH.	835
Superior oblique dysfunction of traumatic origin	843

Harcourt B, Spencer F. Compared measurement of A and V anisotropia at the perimeter and in free space	851
deAlmeida HC. A remote cover test using concave mirrors	857
Guyton DL. Experimental observations about eye torsion	865
Souza-Dias C, Bottos JC, Filho EJG. Congenital monocular limitations of elevation by inferior rectus abnormalities	877
Kubota N, Maruo T. Results of Knapp and Callahan procedures in hypotropia and pseudoptosis	885
Lee JP, Collin JRO, Timms C. Symptomatic dissociated hypers (DVD) – results with unilateral superior rectus recessions	895
Moore TF. The use of synoptometry in diagnosis of eye movement disorders	897
Krzyszkowa KM, Kubatko-Zielinska A. Keratitis sicca following strabismus surgery: a new syndrome	911
Eisenbaum AM, Sargent RA. Anterior segment ischemia caused by Jensen's procedure	913
Frey T. Compensatory mechanisms in selective tenotomy	921
Wilcox LM, Keough EM, Connolly RJ. Adjusting adjustable eye muscle sutures under general anesthesia	923
Bedrossian RH. Adjustable strabismus suture techniques in children	931
Gammon JA, Forestner J. Pediatric epikeratophakia	937
Morgan KS, Asbell PA, May JG, Loupe DN, Kaufman HE.	

**Transactions 6th International Strabismological Association
1990, Australia**

The sixth Bielchowsky lecture: Control of eye vergence and anomalous retinal correspondence Bishop PO.	7
Amblyopia: Correlation Between Human And Animal Research G K Von Noorden	25
Amblyopia In Old People And Residual Amblyopia In Children: Prevalence Before And After Free Visual Acuity Screening And Occlusion Treatment E Gregersen, A Jenson, E Rindziunski, T Vinding	31
Amblyopia: Care And Prevalence In Pre-School Children , Campinas, Sao Paulo, Brazil K M Monteiro De Carvalho, N Kara-Jose, R Caldato, A M Oliviera, J Fonseca Neto, V L Pereira	39
The Incidence Of Amblyopia In Long Standing Untreated Infantile Esotropia A D N Murray, C Calcutt	45
Comparison Of Treatment Methods In Strabismic Amblyopia R M L Doran, S Yarde, A Starbuck	51
Amblyopia, Strabismus And Anisometropia In Congenital Glaucoma Patients L M Christmann, JG Ferguson	61
A Trial Of P-ERG For The Aid Of Therapy In Amblyopia S Takayama, K Nomura, K Fujioka, T Shinkai, M Yamamota	67
Retinal Sensitivity In Amblyopia Cases M Ito, M Imaizumi, H Miyazawa, M Yamamoto	73
Pattern VEP And Accommodation In Anisometropic Amblyopia T Ohzeki	79
Observations On Grating Acuity Measures Of Children In Clinical Practice Using Teller Acuity Cards A Chanda, R M L Doran	85
Development Of Visual Acuity Test By Grating Acuity Cards In Pre-Term And Full-Term Newborn And Premature Infants H Miyazawa, M Yamamoto	95
Visual And Ocular Motor Assessment Of Infants: A Preliminary Report L Mckenzie	101
Studies Of Stereoacuity In Infants By The Tv-Random Dot Stereo Test S Awaya, Y Mizukami, A Kamiya, E Koizumi, S Miyake	109
Clinical Applications Of Stereograms Made With IBM Microcomputer L L K Lin, S F Wu, J H Jan, A H Wang	115
Evaluation Of Langs Test As A Screening Procedure In Children L A Peduti-Cunha, J A F Caldeira	121
Influence Of Vertical Fusion On Horizontal Fusion W Aust	127
Binocular Dissociation By The Mechanism Of Time Separation A H Wang, J H Jan, J H Yu, L L K Lin, L S Ko	131
The Observation Of Eye Movement Using Magnetic Resonance Imaging Y Nishida, E Nishida, K Kani, A Inatomi	137
Dynamic Analysis Of Head Movements By Means Of A 3 Dimensional Position Measurement System Y Watanabe, H Ohtsuki, H Okayama, H Konishi, Y Fujiwara, S Hasebe, M Takeda	143
A Clinical Method Of Measuring The CA/C Ratio I Strachan, M Watts	149
Photographic Measurement Of The Angle Of Strabismus M S Ruttum, K Shimshak, M Chesner	155

The Use Of The Corneal Reflex Test Through Glasses	161
Y Hatsukawa, T Otori, B Patel, C Hogg, P Fells	
Squint Surgery Performed With Measurement Of The Globe By A –Scan	167
Compared With Standard Surgery	
W E Gillies, A M V Brooks	
A Method For Determining Intraoperative Length-Tension Curves Of Human	173
Extraocular Muscles	
J E Egbert, A L Rosenbaum, T M Keoghan Jr, N C Wheeler, K A Buzard, C Wang	
A Right Angle Siamese Twin Calliper For Greater Accuracy And Precision	179
In Eye Muscle Surgery	
P E Romano, C E Hess	
Application Of The Computer In Strabismology	185
J H Jan, L L K Lin, A H Wang, Y F Shih	
Polaroid Photorefractive Screening For Amblyopia	189
H L Freedman, K L Preston	
A New Dot Visual Acuity Test For Children	195
H Morizane, K Morizane	
Event-Related Potentials In Disturbance Of Vision Of Psychogenic Origin	201
Y Oguchi	
Pathophysiology Of The Symptoms Of Infantile Strabismus	209
A Spielmann	
Origin Of The Lateral Rectus Paresis In Strabismus of High Myopic Patients	215
B Bagolini, A Dickman, C Tamburrelli, C Colosimo	
Duane’s Retraction Syndrome: A Review Of 72 Cases	221
F J Martin, K M Bourne	
Further Insights Into Developmental Errors Causing Duane’s Syndrome	229
Revealed By A New MRI Technique	
A L Rosenbaum	
Strabismus Resulting From Retinal Detachment Surgery:	235
Some Aspects Of Management	
A F Hilton	
Oscillopsia In Congenital Nystagmus	243
L A Abel, I M Williams, L Levi	
Treatable Nystagmus (Manifest Latent Nystagmus)	249
R D Reinecke, A A Zubcov	
Results Of Horizontal Rectus Muscle Surgery To Modify The Null Point In	255
Congenital Nystagmus	
J A Pratt-Johnson	
Compensation Mechanisms And Treatment In Nystagmus Patients With	261
Albinism Or Congenital Cataract	
H Muhlendyck	
Symposium On The Management Of Fully Accommodative Esotropia	269
P Fells, PV Berard, M Gobin, A Jampolsky, A C B Molteno,	
G K Von Noorden, C Shor, M Spiritus	
Outcome Of Accommodative Esotropia	307
T Nakagawa, T Kii, S Mori	
Long Term Follow-Up Of Refractive Accommodative Esotropia	315
N Kubota, S Akatsu	
The Accommodative Component After Esotropia Surgery	319
E L Raab	
Ultra-Early Surgery For Essential Infantile	325
E M Helveston	
Late Management Of Infantile Esotropia	335
AA Assaf	
Stability Of The Monofixation Syndrome	343

B W Arthur, J T Smith, W E Scott	
Clinical Characteristics Of Non-Accommodative intermittent esotropia	349
S Akatsu, H Iwashige, N Kubota, T Maruo	
Defining The Limits Of Safe Recession Of The Horizontal Recti Muscle	355
A M V Brooks, M R Rivers, N T Strong, W E Gillies	
Outcome Of Early Overcorrection Of Exotropia	363
E L Raab	
Binocularity After Surgery For Intermittent Exotropia	363
S M Wolff, D N Loupe	
Surgical Alignment For Exotropia In Children	375
M R Ing	
A Typical Exotropia	381
Y Uemura, N Nozaki, R Yamada	
Differential Resection Of Medial Recti In Convergence Insufficiency	385
P Nemet, C Stolovitch	
Survey Of Current Management Of Intermittent Exotropia In The Usa And Canada	391
P E Romano, M F Wilson	
Treatment Of Exotropia With Gasserian Ganglion Block	397
O Tamura, M Abe	
Botulinum Toxin Treatment Of Strabismus	401
A B Scott	
Botulinum Treatment Of Childhood Strabismus	403
A B Scott, E H Magoon, K W Mcneer, D R Stager	
The Physiology Of Botulinum Toxin	409
J S Elston	
Botulinum Toxin: An Alternative To Squint Surgery In Childhood?	413
S Ahgwe, J P Lee	
The Histopathology Of Botulinum Toxin Injection Into Extraocular Muscles	421
R F Spencer	
Botulinum Toxin For Restrictive Strabismus	429
J Lee	
A Discussion Of The Current Role Of Botulinum Toxin In Paralytic Strabismus	435
R Fitzsimons	
Lateral Rectus Muscle Transplantation Surgery For Third Nerve Palsy	443
J Norton Taylor	
Anterior Ciliary Vessel Preservation During Rectus Muscle Surgery	451
C A Mckeown, H M Lambert, J W Shore	
Personal Approach For Adjustable Sutures Technique	457
E C Campos, C Chiesi, R Gulli, C Schiavi	
Post Operative Drift Following Adjustable Strabismus Surgery	463
R Morris, B Mccarry, P Fells	
Results Of Stage III Intraoperative Adjustment Of Eye Muscle Surgery	473
(Under General Anesthesia) For Neuroparalytic And Mechanical Strabismus	
P E Ramono	
Superior Oblique Silicone Expander For Browns Syndrome And Superior Oblique Overaction	479
K W Wright	
Desagitalization Of The Superior Rectus: A Simple Method To Correct Abnormal Head Posture In Congenital Absence Of The Superior Oblique	481
S Miyake, K Tsuzuki, T Yagasaki, S Awaya	
A Study Of Horizontal Strabismus Surgery: Is Medial Rectus Surgery More Effective On Near Deviation?	487
M Deguchi, T Yokoyama, K Kamihata, Y Matsuzaka, K Kawanami, S Hosoi And H Tanaka	
Overnight Admission Of Outpatient Strabismus Patients	493

S J Isenberg, L Apt, S Yamada	
Neurological Correlates To Strabismus And Other Ocular Motility Disturbances In Meningomyelocele	501
G Lennerstrand, L Samuelson	
Ocular Motility Defects In Motor Neurone	509
K G Gibson	
The Effect Of Radiotherapy On Abnormal Eye Movements In Dysthyroid Orbitopathy	517
J S Elston, P N Plowman	
Oculomotor Problems Associated With The Blepharophimosis Syndrome	519
J W Walker, R Collins	
Blowout Fractures Combined With Isolated Laceration Of Rectus Muscles	521
C Stolovitch, P Nemet, M Lazar	
Ocular Morbidity In Extremely Low Birth Weight Infants	527
C G Keith, L W Doyle, W H Kitchen	

**Transactions International Strabismological Association
19-23 June 1994, Vancouver, Canada**

Evaluating The Optical Status Of The Human Eye SH Hay, P Reiner, R Bryant	3
Inter-Observer Variability Of Cycloplegic Refraction In Children S Jamal, G R Laroche	7
The Variability Of Ophthalmological Parameters In Normal Children Age 4 ½ To 5 ½ Years S Lam, G R Laroche, I De Becker, H Macpherson	11
Polaroid Photoscreening. A New Model And Interpretation Standards H L Freeman, L Griffin	15
The Results Of Russell Corporation-Sponsored Eye Screenings In 14,000 Children K S Morgan, J C Kennemer	19
Deficiencies Of The Fixation Mechanism J Lang, P Bischoff	23
Photopic Visual Field In 2 Month Old Infants A Fea, M Delpiano, A Soldi, M Musso, E Miraglia, C Martano, L Mayer, F Vitale Brovarone	27
A Sweep VEP Test For Colour Deficits In Infant Children T D France, J N Ver Hoeve	31
Changes In Corneal Topography After Strabismus Surgery In Children X-H Wang, ME Wilson, E LC Bluestein	35
Longitudinal Changes Of Refractive Error In Esotropic Operated And Unoperated Young Children M Spiritus, O Kallay Jr, C Denis, M Van Der Broeck, D Hoffman	39
Focal Macular ERG In Ambyopia: With Special Reference To The Difference Between Hypertropic Anisometropia And Myopic Anisometropia A Awaya, H Tanaka, Y Miyake, T Yagasaki, N Nakamura, Y Suzuki	43
Efficiency Of Preferential Looking Test And PVEP In Detecting Amblyopia In Infants With Or Without Mental Handicaps M S Roy, M Barsoum-Hornsy, LM Khouri, C Tremblay	47
A Comparative Study Of Near And Distant Visual Acuity In Ambyopic Eyes W Haase, B Schmal, B Damashke, E Meyer	51
Citicoline Improves Temporarily Visual Acuity Of Amblyopic Patients Outside The Plastic Period Of Visual System E C Campos, C Schiavi, P Bededetti, R Bolzani	55
Steroid Injection Vs Conservative Treatment Of Anisometropic Amblyopia In Juvenile Adnexal Hemangioma MV Motwani, J W Simon, J Pickering, R A Catalano, P L Jenkins	59
Using An Ocular Contact Lens For Amblyopia Management C G Summers, LK Davis, JE Egbert	63
The Physiology Of Suppression In Strabismus R Harrad, F Sengpiel, C Blakemore	69
Neuroanatomic Abnormalities Of Visual Cortex In Infantile Esotropia L Tychsen, A Burkhalter	73
Fly Test Calibrated W De Decker, E Dannheim, R Gockeln	77
Preliminary Evaluation Of A Newly Designed Random Dot Test L L K Lin, S F Wu, A H Wang	81
Binocular Sensory Testing B W Arthur	85
Cortical Binocular Recovery Following Strabismus Surgery L W Baitch, M W Preslan	89
The Relationship Between The Angle Of Strabismus And Degree Of Binocularity	93

In The Monofixation Syndrome	
Observation Of Retinal Correspondence In Esotropia	97
M Mitta, F Takahashi, K Kani, A Inatomi	
Distance Stereo Acuity Improvement In Intermittent Exotropia Patients Following Surgery	101
T D O'Neal, A L Rosenbaum, R A Stathacopoulos	
Discussion Of: Distance Stereo Acuity Improvement In Intermittent Exotropic Patients Following Strabismus Surgery	104
D L Guyton	
Abnormal Motion Perception In Early Onset Esotropia	106
S Hague, J Shallo-Hoffman, P Fells, M Gresty	
The Use Of Bangerter Foils In The Management Of Intractable Diplopia	110
A Mcintyre, P Fells	
The Ultrastructural Immunohistochemistry Of Thyroid-Associated Ophthalmopathy	117
A Pappa, P MG Munro, R C Howes, P Fells, S Lightman	
Electrophysiological, Biochemical And Morphological Study In External Congenital Ophthalmoplegia	121
A Magli, P Vastarella, T De Berardinis, F D'Esposito, L Santoro, A Orsini, R Nucciotti	
Observation Of Extraocular Muscle Atrophy In Cases Of Peripheral Nerve Palsy Using MRI	125
Y Aoki, Y Nishida, T Murata, O Hayashi	
Cine Magnetic Resonance Imaging Of Eye Movements	129
R Harrad, M Potts, P Goddard, J Kabala, B Hoh	
Modified Periodontal Probe For Simplified Forced Duction Measurements	132
H S Metz, R Yeaple	
Variations In Medial Rectus Stretching In Esotropia	136
A Pechereau, M A Quere, M Weber	
The Development Of Eye Movements In Infancy	140
M Jacobs, C Harris, D Taylor	
Saccadic Velocity Analysis In Patients With Divergence Paralysis	144
L Lim, A L Rosenbaum, J L Demer	
Saccadic Velocity And Force Development In Duane's Retraction Syndrome Type I	148
S Tian, G Lennerstrand	
Saccadic Adaption Following Adjustable Suture Surgery	152
R W Hertle, D B Granet, M Movaghar	
Stability Of The Eyes In Torsional Direction: Spontaneous Torsional Eye Movements Are Conjugate	156
L J Van Rijn, J Van Der Steen, H Collewijn	
A Combination Horizontal/Vertical Prism Bar	159
U Flueler, K M Elhatton, D L Guyton	
Iris Plane Parallel Measurement In The Hirschberg (Corneal Light Reflection Test) For Binocular Misalignment (Strabometry)	163
P E Romano	
Vergence Responses To A Base Out Prism	167
E Cornell	
Comparison Of 3 Standard Clinical Test And A New Test For The Measurement Of Torsional Diplopia	171
OKN Asymmetry In Treated Esotropes	175
K W Wright, M Borchert, A A Leverant, J M Hwang	
OKN Asymmetry In Treated Esotropes	178
H P Goldstein, R D Reinecke	
Surgical Treatment Of Exodeviations With Congenital Nystagmus: Problems Related To Deviations With Blocking Convergence And Pseudo-Latent Nystagmus	182
A Spielmann, A C Spielmann	
Nystagmus Dampening Surgery: Cosmetic Or Functional?	186

J E Egbert, J H Anderson, C G Summers Long Term Evaluation Of Extra Ocular Muscle Surgery For Congenital Nystagmus And Abnormal Head Posture	190
E Schulz, E Meyer, W Haase, J Lithander The Treatment Of Congenital Nystagmus With Botox	194
J Carruthers Accommodative Amplitude In Children Wearing Bifocals	201
GK Van Noorden, R H Jenkins M X Repka Discussion Of "Effect Of Bifocals On Accommodative Range Children" By G K Von Noorden And R H Jenkins	205
Hyperopia In Infantile Vs Acquired Esotropia: Implication For Glasses M X Repka	207
Prophylaxis To Prevent Acquired Esotropia G W Cibis, M A Crandall	
Progressive Increase In The Angle Of Deviation In Congenital Esotropia M R Ing	211
Ocular Deviation Under Atropine Cycloplegia As A Predictor Of The Accommodative Component Of Esotropia P Nemet	214
Prism Adaption In Variable Esotropia	217
S A Stewart, C G Summers, J D Lavoie, J E Egbert The Influence Of The Prism Adaption Test (PAT) On Surgery For Intermittent Exotropia	220
S Veronneau-Troutman, E Traykovski, J Derosa The Correlation Between Axial Length And The Response To Strabismus Surgery	224
M Graf, T Krzizok, H Kaufmann Relating The Angular Correction To The Amount Of Strabismus Surgery	228
W E Gillies, M R Rivers, A M V Brooks Results Of 8 And 9mm Bilateral Muscle Recessions For Exotropia	232
J E Berland, M E Wilson, R A Saunders Large Bimedial Rectus Recession (6.5mm Or More) In The Management Of Large Angle Esotropia	236
A A Assaf Long Term Effectiveness Of Bilateral Medial Rectus Recession In Congenital Esotropia And Acquired Accommodative And Non Accommodative Esotropia	240
D V Bautista, W E Scott, B Zimmerman, S Sarin Surgical Success In Patients With Acquired Esotropia And High Refractive Error	244
J Rysenga, JD Baker, J D Roarty, J Petrunak, M Schweers Alignment Success Following Medial Rectus Recessions In Normal And Delayed Children	248
J D Pickering, J W Simon, C D Ratliff, K B Melsopp, L L Lininger Predictive Factors For Exotropia Following Esotropia Surgery	252
W R Lee, R V Keech, J Kim Vertical Shift Of The Medial Rectus Muscles In The Treatment Of A Pattern Esotropia- Analysis Of Outcome	256
S E Brooks, G Deb Ribeiro, S M Archer, M A Del Monte Treatment For A And V Patterns By Slanting Muscle Insertion	260
B Biedner, Y Yassur Unilateral Surgery For Exotropia With Convergence Weakness	264
S P Kraft, A V Levin, R W Enzenauer Anterior Tenonectomy In Horizontal Rectus Muscle Resection: Effect On The Post-Operative Appearance Of The Conjunctiva	268
H Van Hecke, M T Miller, P K Rabiah, S El-Naggar Vertical Rectus Muscle Transposition In Complete VI Cranial Nerve Palsy	273

V Sarnicola	
The Superior Rectus Contracture Syndrome	279
A Jampolsky	
Inferior Transposition Of The Horizontal Recti (Inverse Knapp Procedure) For The Treatment Of Acquired Inferior Rectus Paresis	283
J P Burke, R V Keech	
An MRI Study Of Double Elevator Palsy	287
W Cadera, J N Bloom, S Karlik	
The Spectrum Of Anatomic Variations In Congenital Superior Oblique Palsy	291
C Y Lo, T Maruo	
Facial Asymmetry And Superior Oblique Tendon Laxity In Superior Oblique Palsy	295
E A Paysse, D K Coats, D A Plager	
Should Early Surgery Be Performed For Head Tilts To Prevent Facial Asymmetry?	299
C R Goodman, E Chabner, D L Guyton	
True Versus Masquerading Superior Oblique Palsies: Muscle Mechanisms Revealed By Magnetic Resonance Imaging	303
Superior Oblique Myokymia	307
J T H N De Faber, R L J Van Rijn	
The Use Of The Computer-Assisted Lancaster Test In The Evaluation Of A New Operation For Mild Superior Oblique Palsy	311
C Gonzalez, G Ciniciripini, R Sanchez	
Unilateral Modified Harada-Ito Procedure For Excyclotorsion Secondary To Unilateral Superior Oblique Palsy	313
M H Younis, A Vivian, J P Lee	
Effect Of The Superior Oblique Silicone Expander For Superior Oblique Overaction	317
C Park, S C Park	
Superior Oblique Tenotomy With Expander	321
D Stager, G Beauchamp, M Parks	
Efficacy Of Posterior Tenectomy Of The Superior Oblique For A-Pattern Anisotropia	322
N Kara-Jose	
Anterior Transposition Of The Inferior Oblique In The Treatment Of Fourth Nerve Palsy	326
C Gonzalez, G Ciniciripini	
Surgical Procedure In Congenital Brown's Syndrome	329
H J Kaiser, H Muhlendyck, H Thaller-Antlanger	
Inferior Oblique Overaction In Congenital Esotropia: Fundus Exocyclotorsion As A Predictive Sign	333
H S Eustis	
Vertical Deviations Secondary To Inferior Oblique Inclusion In Previous Lateral Rectus Surgery	336
R A Cline	
Nasal Myectomy Of The Inferior Oblique	340
D R Stager	
Observation Of Dissociated Vertical Deviation (DVD) By Infrared Fundus Haploscope	347
A Brown-Limon, R R Jasso, E Limon De Brown, JF Burges, P S Lujambio, T Hernandez	351
A And V Patterns In Untreated Infantile Esotropia And Their Association With DVD	355
C L Calcutt, A DN Murray	
Analysis Of The Vertical Factor In Early Surgery Of Early Onset Strabismus	359
V Paris	
Does Dissociated Strabismus Affect Surgical Outcome In Congenital Esotropia?	363
W O Young, M E Wilson, R A Saunders	
Dissociated Horizontal Deviation	366

D Romero-Apis	
Dissociated Horizontal Deviation And Accommodative Esotropia: Treatment Options When An Eso – And An Exo-Deviation Co-Exist	370
M E Wilson, R A Saunders, J E Berland	
Ultrastructure Of The Superior Oblique Tendon	374
E M Helverston, M Oberlander, A Evan, B Connors, J Clendenon	
Graduated Superior Oblique Surgery And DVD	377
B P Greaves, A Chadwick	
A Pattern Horizontal Strabismus, Dissociated Vertical Deviation And Superior Oblique Overaction	381
D K Coates, E A Paysse, M Sato, E M Helveston	
Surgical Treatment Of Dissociated Vertical Deviation By Faden Operation	385
II El Bably	
20 Years Experience With The Faden-Operation	391
H Muhlendyck, J Goerd, S Kellner	
Posterior Fixation Sutures (Faden Procedure) For The Management Of Convergence Excess Esotropia	395
A J Vivian, L Kousoulides, P Fells, J P Lee	
Posterior Fixation: Adjustable And Without Posterior Sutures	399
A B Scott	
Augmenting Surgery For Monocular Esotropia With A Medial Rectus Posterior Fixation Suture	403
An Alternative Of Fadenoperations In Acquired Esodeviations With Variable Angle	406
L De Clippeleir, R Apers, L Van Eckhoutte, M Van Lammeren, H Janssens, L Baekeland	
One Stage Intraoperative Adjustable Suture Technique For Correction Of Strabismus	410
J S Davis, A W Biglan, R Day, D Landsittel	
Effect Of Adjustable Sutures In Recession Of The Inferior Rectus Muscle In Thyroid Ophthalmopathy	414
M S Ruttum	
Discussion Of Paper By MS Ruttum MD	418
S M Archer	
Strabismus Surgery In Patients With Moebus Syndrome	419
D M Laby, A L Rosenbaum, S J Isenberg, B W Fleck	
Botulinum Toxin In Esotropic Approach To The Medial Rectus To Recover Lost Muscles	423
C A Mckeown, R B Metson, I M Dunya, J W Shore, M P Joseph	
Botulinum Toxin In Esotropia Patients Up To 3 Years Of Age	429
R Gomez De Liano, J M Rodriguez, P Gomez De Liano, M L De Andres	
Long Term Use Of Botulinum Toxin For Adult Strabismus	433
J P Lee	
Persisting Hypotropia Following Botulinum Induced Protective Ptosis	437
P L O Heyworth, J P Lee	
Flourescein Angiographic Evaluation Of Anterior Ciliary Vessel Preservation	441
J Olver, P Fells	
The First Textbook Of Strabismus Surgery	445
J L Mims III And T Boubel	
A New Method For Doing Chart Reviews... Without The Chart!	449
V C Hansen, L Rovick, R S Freeman	
Direct Visualization For Nasocrimal Duct Intubation	453
S K Mcclatchey, S J Jaafar	
A Manicure For Difficult Crawford Intubations	455
R W Arnold	
Bilateral, Monocanalicular Crawford Loop: Simple Removal For Remote NLD Patients	458

R W Arnold	
The Association Of Nasolacrimal Duct Obstructionwith Ear Infections	462
C Morse, D Sprunger	
Periocular Infection After Strabismus Surgery	464
J D Kivlioni, M E Wilson	
The Autogenous Dermis-Fat Orbital Implant In Children	467
K T Mitchel, D A Hollten, W L White, M A O'Hara	
Serious Ocular Alkali Burns From The Wood Ash Of Fireplaces And Woodstoves	471
J L Zabal-Ratner, J W Simon, S Follett, P Zloty, MW Belin, D Turok	
Idiopathic Tractional Corectopia	475
C S Atkinson, M C Brodsky, D A Hiles, J W Simon	
Enhancement Of Perkins Tonometry Using An External Cobalt Blue Light Source	479
JE Berland, TP Powers, R A Saunders, H Rowe, ME Wilson, W C Stewart	
How Reliable Are Intraocular Pressure Measurements In Awake Infants And Children?	482
H Atilla, L Tychsen	
Pediatric Glaucoma – Angle Findings And Outcome	486
M M Hastings, J M Little	
Goniotomy For Glaucoma Complication Chronic Anterior Uveitis	488
A S Niffenegger, D S Walton	
Biometry Technique For Intraocular Lens Implantation In Children	495
J Lawson, M Restori, D Taylor, C Lyons	
Dimensions Of The Pediatric Capsular Bag: Implications For Intraocular Lenses In Children	499
E L C Bluestein, M E Wilson, X H Wang	
Haptic Breakage After IOL Implantation During Infancy In A Non-Human Primate Model	503
S R Lambert, H Grossniklaus	
Pars Plana Vitrectomy And Capsulotomy In Pediatric Cataract Extraction With Intraocular Lens Implantation	507
T H Metz, M A O'Hara, W C Bauman	
Visual Rehabilitation After Cataract Extraction In Children Using Intraocular Lenses	511
R W Hertle, G E Quinn, D B Schaffer, G D Markowitz, D B Granet, J A Napolitano	
Posterior Chamber Intraocular Lenses: Long Term Results In Pediatric Cataract Patients	515
E R Crouch Jr, S H Pressman, E R Crouch	
Intraocular Lens Implantation In Children (Techniques And Results 1991-1993)	519
K M Brady, D A Hiles	
Review Of Proceeding Four Papers In Intraocular Lens Implantation In Children	523
J D Baker	
Modified Indirect Ophthalmoscopy For Evaluation Of The Pediatric Retina	527
D K Coats, E A Paysse	
Can Non-Ophthalmologists Screen For Retinopathy Of Prematurity?	529
R A Saufders, E L C Blustein, J E Berland, M L Donahue, M E Wilson	
Complications Of Zone One Retinopathy Of Prematurity Treatment	533
J W Mcmanaway III, R Demaio, G W Blankenship	
ROP In Discordant Twins	537
R R Fellows, M L Mcgregor, D L Bremer	
Measurement Of Low Vision In Advanced Cicatricial Retinopathy Of Prematurity	542
P J Droste, M T Trese	
Molecular Diagnosis Of Inherited Retinal Degeneration In Asymptomatic Children	545
A V Drack, B E Nichols, C Sheffield, E M Stone	
An ERG, VEP And Eye Movement Assessment Of Children With	549

Bardet-Biedl Syndrome	
T Lavy, C M Harris, F Shawkat, D Thompson, A Kriss	
Photoaversion In Lebers Congenital Amaurosis	553
E I Traboulsi, I H Maumenee	
Causes Of The Strabismus And Diplopia After The Retinal Surgery	556
J M Hwang, K W Wright	
Retinal Re-Detachment After Strabismus Surgery	557
N Sondhi, E M Helveston	
Management Of Experimental Globe Perforation During Strabismus Surgery	561
D Sprunger, S Kalpper, J Bonnin, J Minturn	
Electroretinography As A Tool In Distinguishing Bardet-Biedl And	565
Alstrom Syndromes In Early Childhood	
A V Whittingham, S R Lambert, W B Dasher, A V Drack	
Discussion: Can Non-Ophthalmologists Screen For Retinopathy Or Prematurity?	569
E A Palmer	
Ocular Findings In Rubenstein-Taybi Syndrome: Results Of The First International	573
Symposium	
C M Ohnsman, M J Burke	
Craniosynostosis Syndromes In British Columbia	577
J Carruthers, D Berg	
Congenital Ocular Synkinesis (Aberrant Innervation)- New Concepts	581
H L Freedman, B J Kushner	
Strabismus Associated With Marcus Gunn Synkinesis	585
C Lyons, P Fells, R Collin	
Strabismus Associated With Meningocele	589
A W Biglan	
Intracranial Pathology In Children Presenting As Concomitant Strabismus	593
C Timms, D Taylor	
Cerebellar Astrocytoma Presenting As Acquired Comitant	597
Esotropia At Age 18 And 27 Months	
M S Jaafar, M L Z Collins, A I Rabinowitz	
Outcome Of Sixth Nerve Palsy In Young Children	601
M Aroichane, M X Repka	
Prevalence Of Intracranial Lesions In Children Presenting With Disconjugate	605
Nystagmus (Spasm Nutans)	
K A Arnoldi, L Tychsens	
Epiretinal Membrane: An Unusual Complication Of Childhood Optic Neuritis	609
M X Repka	
Delayed Visual Maturation	612
F Lods, C Gramet	
Ophthalmological Examination Of Brain Damaged Children	616
M De Bideron	

**Transactions of 8th International Strabismological Association
10-12 September 1998, Maastricht, The Netherlands**

Eight Bielchowsky lecture: The influence of superior oblique anatomy on function and treatment Helveston E	xliii
Retinal Nerve Fibre Layer Thickness In Human Strabismic Amblyopia TP Colen, JTHN De Faber, H G Lemij	3
Assessment Of Detection, Resolution And Recognition Acuities In Children, Aged 3 ½ - 6 Years, With Normal Vision, Visual Impairment Due To Ocular Disease And Strabismic Amblyopia A Rydeberg, G Lennerstrand	7
Visual Acuity Tests Using Chart, Line And Single Optotype In Healthy And Amblyopic Children Rotterdam Amblyopia Screening Evaluation Study Ramses V K Lantau, R E Juttman	11
Amblyopia Is A Cause Of Visual Handicap G Kvarnstrom, P Jakobsson, M Abrahamsson, E Bjernbrink Hornblad, B Sunnqvist	15
Measurement Of Treatment Compliance In Patching For Amblyopia H J Simonsz, Bg Dijkstra	19
Ametropic Bilateral Amblyopia K Verhoeff, R J Grootendorst, J T H N De Faber	23
Visual Prognosis In Children With Bilateral High Refractive Errors G Shalit, A Mulvihill, J Howell, G G W Adams	26
The Fate Of The Hugh Hypermetropic Eye. A Long Term Follow Up E Mezer, B Miller, Y Shauly, A Tamir, W Haase, A W Biglan, E Meyer	29
The Pattern Of Visual Evoked Potentials In Treatment Of Amblyopia In Children A Kubatko-Zielinska, K M Krzystkova, J Lebiecz	33
The Strabismus Inheritance Study In Tasmania (SIST) A Pilot Study To Investigate The Risk Factors Involved In The Inheritance Of Strabismus And The Phenotypic Expression Of Strabismus In Families With Affected Pairs R M Wilkinson, J M Barbour, C H Wilkinson, D A Mackey	37
Motion Detection Test In Central And Peripheral Vision V Belli, E Petrelli, R Bolzani	41
Contrast Sensitivity, Receptive Fields And Mach Bands E Petrelli, V Belli, R Bolzani	45
Proprioceptive Effects On Space Localisation In Strabismus Y Han, G Lennerstrand	49
Does Early Onset Strabismus Inhibit The Development Of The Uncrossed Optic Pathway V Herzau, S Starc	53
Binocular Visual Field Of Strabismus Measured By Starlight Test T Hirai, Y Ito, K Tsuzuki, M Sato	57
A Development Of A New Four-Dot Test To Assess Suppression Scotoma Without Glasses T Fujikado, I Matsuda, J Hosohata, G Ohmi	61
Tonic Interocular Suppression In Amblyopia And Exotropia S I Kawano, K Seki, E Watanabe, K Takechi, T Tsukada, T Maruo	65
Binocular Function Of Parents Of Children With Infantile Esotropia In Japan K Kanemoto, Y Miyzaki, M Sato	69
Disruption Of Binocular Fusion By Adult-Onset Macular Dystrophy R M L Doran, O Nelson	73
The Effect Of Visual Acuity On The Predictive Value Of The Post-Op Diplopia Test And Botulinum Toxin A Treatment J E S White, E Dawson, JP Lee, C Bunce	77
	81

Long-Term Wearing Of Prism – A Conservative Way To Cure Squint Deviations In Childhood E Strangle-Zuschrott	85
Heterotopy Of Extraocular Muscle Pulleys Causes Incomitant Strabismus J L Demer, R A Clark, J M Miller	91
Normal Fusion Amplitudes: With Special Attention Paid To Cyclofusion D K Parkinson, J P Burke, T L Shipman	95
A Computer Based System For Acquisition, Recording And Analysis Of Eye Movement S Tian , J Yegge, R Bolzani, G Lennerstrand	99
Horizontal Disparity Vergence Indifferent Gaze Positions A Dickmann, D Di Nichiola, N Gianfrancesco, G Savino, L Scullica	103
Vergence Stability In Microstrabismus L J Van Rijn, M P M Ten Tusscher, I De Jong, F Henrikse	107
Vergence Eye Movements And Asthenopia: Is Vergence Training Useful? A F Van Leewen, J T H N De Faber, J Van Der Steen	111
The Spring-Back Balance Test, Evaluation Of The Conjunctival Component A Pechereau, J M Halberdier, F Lignerreux, F Oger-Lavenant	115
The Electromyometer. A New Instrument For Measuring Muscle stretching A Perchereau, J Chereau	119
Strabismus As An Initial Symptom In Children With Brain Tumors M D Mills, D Puccetti	123
A Multi – Centre Prospective Study Of Traumatic Sixth Nerve Palsy J M Holmes, D A Leske, P J Drost, R W Beck	127
Botulinum Toxin A (BTA) In Treatment Of Paralytic Strabismus (VI And IV Nerves Palsy) In Early And Late Periods Of Paralysis K M Krzystkova, R Szpytma, A Kubatko-Zielinska, A Madroszkiewick	131
Results Following Treatment Of Third Cranial Nerve Palsy In Children L A Schumacher-Feero, A W Biglan, F Mendiola Solari, K W Yoo	135
A Patient With Sudden Diplopia Due To Abduction Limitation. Paralytic Or Mechanical? S P A Van Hulst-Ginjaar, R J W De Keizer, M Swart-Van Den Berg, G J Vielvoye	138
Treatment Of Paralytic Strabismus With Transposition And Transplantation Of The Superior Oblique X Guo, L Ma, G Xu	142
Different Forms Of Congenital Fibrosis Of The Extraocular Muscles W E Gillies, A M V Brooks, M Scott	146
Synergistic Divergence In Association With Congenital Extraocular Muscle Fibrosis S B Ozkan, E Kir	150
The Evaluation Of Chronic Progressive External Ophthalmoplegia With Computerized Tomography S B Ozan, M F Soylev, Z C Karaman, E Kir, I Durak	154
Congenital Innervation Defect Syndrome A A Assaf	158
A Relationship Between Strabismus And Congenital Blepharoptosis N Kubota, T Hayashi, T Maruo, N Ikuta, M Nakagawa, C Usui	162
Natural History Of Stilling-Tuk-Duane Retraction Syndrome And Risk Factors Of Decompensation K Mcmain, G R Laroche, F Tremblay, J Zurenbinsky	166
Frontalis Muscle Transposition In Ptosis With Unwanted Eyelid Movements Ten Tusscher MPM, Roddi R	170
Assessment Of Visual Function, Orthoptic Findings And Underlying Diseases In MMH Children With Cortical Visual Impairment	173

B Kasmann-Kellner, K W Ruprecht	
Ventriculo-Peritoneal Shunt Dysfunction Caused By Wearing Glasses	177
J R M Cruysberg, P W M Snijders-Bosman, W O Renier	
Eye Muscle Surgery In Parry-Romberg Syndrome: A Useful Therapy?	181
C Kingma-Wilschut, J T H N De Faber	
Double-Bellied Inferior Oblique Muscle: A Cause Of Recurrence Of Inferior Oblique Overaction	187
S P Kraft, D Deanelis, I Maker	
The Neurofibrovascular Bundle Of The Inferior Oblique Muscle: Surgical Implications Of Recent Findings	190
D R Stager Sr, D R Stager Jr	
A Congenital Accessory Inferior Oblique Muscle Fibrous Band Resulting In Mechanical Restriction Of Down Gaze	194
A Ansons, A Spencer	
Quantification Of Inferior Oblique Muscle Recession	197
K Monteiro De Carvalho, N Minguini, F J Dantas, P Lamas, N K Jose	
Pharmacologic Enhancement Of Inferior Oblique Myectomy	201
P Nemet	
Inferior Oblique Recession: Correcting Small Angle Esotropia With V-Patten	203
Aa El-Din	
A Prospective Evaluation Of Anterior Transportation Of The Inferior Oblique Muscle, With And Without Myectomy, In The Treatment Of Dissociated Vertical Deviation	207
A G Quinn, S P Kraft, C Dy, R S Taylor, A V Levin	
Indications And Clinical Results Of Weakening Both The Superior Rectus And Inferior Oblique Muscles	211
R A Saunders	
Do Simultaneous Inferior Or Superior Oblique Weakening Procedures Affect The Outcome Of Horizontal Deviation Surgical Correction?	215
N Minguini, F J Dantas, K Monteiro De Carvalho, D C Moreira Filho	
Cephalometric Study Of Facial Asymmetry Associated With Long-Standing Superior Oblique Palsy	221
M Sato, M Maeda, T Ohmura, T Ukai	
Isolated Unilateral Overaction Of The Superior Oblique Eye Muscle	225
W De Decker, E Dannheim-De Decker	
Treatment Of Superior Oblique Palsy In Infants	229
D A Plager, E M Helveston	
Efficacy Of Superior Oblique Disinsertion Or Tenectomy For Correction Of A Pattern Anisotropia	233
M Goldschmit, J Belmiro De Castro Moreira	
Superior Rectus Recession And Inferior Oblique Myectomy For The Treatment Of Congenital Superior Oblique Palsy	237
T Hayashi, F Hasegawa, K Nishide, H Iwashige, T Maruo, C Usui	
A New Surgical Procedure For Marked Bilateral Superior Oblique Palsy: Preliminary Report	241
A Jampolsky	
Long And Short Term Results Of Silicone Expander For Brown Syndrome	245
D R Stager Jr, D R Stager Sr, M M Parks, M Pesheva, M C Bane	
Management Of Bagolini's Syndrome – Plagiccephaly Causing Superior Oblique Deficiency And Ocular Torticollis	249
C Y Lo, T Maruo	
The Muscle Sequelae Following Acquired Unilateral Superior Rectus Muscle Palsy	253
A Spencer, A Ansons	
Can Analysis Of Saccade Help To Determine Inflammatory Activity In	259

Thyroid Eye Disease?	
H D Schworm, A E Heufelder, A Kunze, E Welge, T Eggert, K P Boergen	
Early Strabismus Surgery For Thyroid Ophthalmopathy	263
D K Coats, E A Paysse, D A Plager, D K Wallace	
Incidence And Mechanism Of Oculomotor Disorder After Translid Bony	267
Bony Orbital Decompression For Thyroid Related Orbitopathy	
A C Spielmann, T Maalouf, J L George	
Changes In Eye Position And Ocular Motility After Orbital Decompression	271
D Godts F De Wilde, H Smet, P Evens, L Smeets, M J Tassignon	
Ocular Motility Complications Associated With Endoscopic Sinus Energy	275
M F Murphy, G G W Adams, J J Sloper	
Unilateral Restriction Of Elevation Associated With Sinusitis	279
M F Murphy And G G W Adams	
Lateral Incomitance In Intermittent Exotropia	285
E Nichol, A Ansons	
Is “Earlier” Surgery A Sensory Benefit In The Treatment Of	289
Intermittent Exotropia	
J D Baker, M Schweers, J Petrunak	
Outcome Study Of Bilateral Lateral Rectus Recession For Intermittent	293
Exotropia In Children	
M R Ing	
Large Angle Exotropia Corrected By Intraoperative Botulinum Toxin A And	297
Monocular Recession Resection Surgery	
P L Owens, M B Stominger, P A D Rubin, S Veronneau-Troutman	
Comparison Between Recess-Resect Surgery And Bilateral Recession In	301
The Correction Of Lateral Deviation Of Intermittent Exotropia	
T Nakagawa, M Ohba, N Sasaki, H Osanai,	
Y Pattern Exodeviation – A Variant Of Duane’s Retraction Syndrome	305
S B Ozkan, E Kir, V Daynair	
Prevalent Forms Of Childhood Esotropia	311
B Mohoney	
Prism Adaption For Acquired Esotropia With Distance/Near Disparity	315
L Baker, A M Ansons, J P Burke	
Motor Outcome For Infantile Esotropia Using Video Corneal Reflex Test	319
Y Hatsukawa, Y Kawai, T Yamagishi, M Ishizaka, A Murai, G Ohmi,	
T Fujikado	
Outcome Of Bimedial Recessions V Resect Procedures	323
J A Bradbury, C Thompson	
Bimedial Rectus Recession To Equator Site In Infantile Esotropia	327
A Vinciguerra, S Pensiero, F Parentin, P Perissutti	
A Comparative Study Of Faden (Post Fixation Sutures) Versus Recession	331
Surgery In Esotropia	
M El Cherbini, F Attiah	
Infantile Onset Esotropia: Evaluation Of Management Outcome	335
A A El Din, A Rizk	
Prognostic Value Of Primary Inferior Oblique Muscles Overaction	339
In Refractive Accommodative Esotropia	
C Schiavi, C Bellusci, E Gasparrini, E Campos	
Refractive Surgery Of Accommodative Esotropia: 2 Different Approaches	343
S Frosini, R Caputo, L Campa, L Frosini, R Frosini	
The Effect Of Laser In Situ Keratomileusis In Accommodative Esotropia	347
S C Park, C Park	
Dissociated Vertical Deviation: Etiology And Mechanism	353
D L Guyton, E W Cheeseman, F J Ellis, D Straumann, D S Zee	
Reality Of Vertical Deviation Asymmetry In Early Onset Strabismus:	357

Observation During General Anesthesia As A Predictive Sign V Paris	
The Preventative Management Of DVD In Infantile Esotropia Y A Cho	361
Review Of Inverse Knapp Procedure: Indications, Effectiveness And Results V Maurino, A Kwan, J P Lee	365
Surgery In Vertical Acquired Nystagmus A Spielmann, G Aflalo, A C Spielmann	369
The Efficacy Of Adjustable Suture Technique (AST) In Paediatric Strabismus Surgery T J Chan, A L Rosenbaum, L Hall	373
Seprafilm In Repeated Strabismus Surgery To Reduce Surgical Scarring A A Assaf	377
New Strabismus Surgery With An Absorbable Jaw Clip To Reduce Suturing Procedures B M Mion, S Y Kim, J M Yang	381
Positional Changes Of Reattachment Site After Superior Rectus Recession In Rabbit J Y Kwon, E H Lee, J P Shin, H C Song	385

**Transactions 9th International Strabismological Association
17-20 April 2002, Sydney , Australia**

Introduction Of The 2002 Bielschowsky Lecturer G Lennerstrand	3
Where Should Strabismology Be Going? Pearls And Refuse From Our Past E C Campos	5
Vision Screening In The Netherlands – Up To Date V K Lantau, R E Juttmann	27
Outcomes Of A School Vision Screening Programme L Wilcox, E Cornell	35
The Rationale For The UK Amblyopia Treatment Trial S Richardson, S Hrisos, J Anderson, J Henderson, C Wright, M Clarke	39
Visual Screening In Sweden. Effectiveness In The Reduction Of Amblyopia And Costs G Kvarnstrom, P Jakobson, J Dahlgaard	41
Symposium: Thyroid Associated Ophthalmology A Boschi, R Fitzsimmons, A Jampolsky, A Mcnab, A Rosenbaum	49
Symposium Of Terminology S Veronneau-Troutman, E C Campos, R Laroche, D T Sprunger, C Dunlop, A Roth, C Souza-Dias	73
Refractive Surgery And Strabismus: Workshop L Kowal, J De Faber, C Calcut, S Fawcett	89
Strabismology Advice For The Refractive Surgeon J De Faber, M Tjon Fo Sang	95
Heterotopic Pulleys And Anomalous Head Posture In Comitant Strabismus J L Demer	99
Guidelines For Management Of Anomalous Head Posture In Comitant Strabismus C Schiavi	103
Primary Monofixation Syndrome In Discordant Monozygotic Twins With Strabismus T Yagasaki, M Sato, Y Hotta	109
The Characteristics Of Patients With Chronic Progressive External Ophthalmoplegia (CPEO) C Richardson, T Smith, A Schaefer, P Griffiths	113
A Development Of Stereotest Using Luminance Modulation N Sekimoto, M Mizuno, K Okai, A Akaike, Y Takami, S Asonuma, J Hosohata, S Suyama, H Takada, S Sakai, T Fujikado	117
Intraoperative Adjustment In Strabismus Surgery J B Lee, Y H Chang, S H Han	121
A Case Of Bilateral Congenital Superior Oblique Palsy Developing After Trauma S Kusahara, A Kanamori, K Ishibashi, Y Sekiya, A Negi	125
Crowding Phenomenon With Logmar Based Test R Kuwahara, Y Mori, H Shirabe, K Ishibashi, Y Sekiya, M Yamamoto	129
Visual Dysfunction In Children With Reading Problems D Godts, M Tassignon	133
Surgical Results Of Acquired Non-Accommodative Esotropia D T Sprunger, S J Whang, J G Galli	137
Electrophysiological Differences Between Early And Late Onset Amblyopia J L Sloper, A R Davis, M M Neveu, C R Hogg, M J Morgan, G E Holder	141
Anterior Transposition Compared To Graduated Recession Of Inferior Oblique For V Pattern K Monteiro De Carvalho, N Miniguini, L Costa De Araujo, C Crosta	145
Stabilization Of Postoperative Deviation By Fadenoperation For Exotropia Y Hatsukawa, M Ishizada, A Nihmi, T Nakao, T Yamagishi	149
About The Origin Of A Pattern A Dickmann, M V Stella, A Salerni, C Rendeli, E Salvaggio, M Calderelli, G Savino	153

Neural Network System And Childrens Strabismus Operation Design W Xixi, X Yu, D Tajian	157
Moderate Amblyopia In Children Less Than Seven Years Of Age: Experience Of The Amblyopia Treatment Study 1 M X Repka,	163
The UK Amblyopia Treatment Trial: Visual Acuity And Stereoacuity Values In Treated And Untreated Unilateral Straight Eyed Amblyopia M Clarke, S Richardson, S Hrisos, J Anderson, J Anderson, C Wright	167
Long-Term Visual Outcome In Primary Microtropia T Matsuo, Y Kawaisha, R Kuroda, H Ohtsuki, Y Watanabe	169
Morphological Changes Of The Optic Nerve Head In Albinism Are Frequent And Have Functional And Refractive Implications B Kassmann-Kellner, K W Ruprecht	173
Anatomical Differences In Optic Nerve, Chiasm And Optic Tracts In Human Albinism Demonstrated By MRI Evaluation B Kasmann-Kellner, T Schafer, C M Krick, M Backens, K W Ruprecht, W Reith, B Schmitz	177
C-Fos, Egr-1, Bcl-2, And C-Jun Decreases In Visual Cortex Of Cats With Monocular Visual Deprivation Lejun Wang, Li Wang, W Xixi, K Zhao	181
Clinical Tests Of Distance Stereopsis: State Of The Art J P Frisby, H Davis	187
Outcome Study Of Stereoacuity In Relation To Duration Of Misalignment In Congenital Esotropia M R Ing, L M Okino	191
Aniseikonia Measured By Hess Chart And New Aniseikonia Tests Toshi Hirai, Miho Sato, K Ukai, C-H Piao, H Terasaki, Y Miyake	197
Unilateral Recession With Anterior Transposition Of The Inferior Oblique Muscle For Correction Of Hypertropia In Primary Position M Goldchmitt, S Felberg, C Souza-Dias	203
Gaze-Related Orbital Pulley Shift: A Novel Cause Of Comitant Strabismus J L Demer, R Kono, W Wright, S Yeul Oh, R A Clarke	207
Clinical Findings And Surgical Results Of True And Masquerading Congenital Superior Oblique Palsy M Sato, E Amino	211
Effectiveness Of Extraocular Muscle Surgery In Macular Translocation With 360 Degree Retinotomy T Fujikado, H Shimojyo, J Hosohata, Y Tano	215
Tenon Capsule Transposition In Cases Of Major Excyclotorsion A C Spielmann, A Spielmann	219
Oculomotor Dysfunction In Migraine S Chowdhury	225
Botulinum Toxin In Chronic Sixth Nerve Palsy J M Holmes, D A Leske	233
Partial Augmented Rectus Extraocular Muscles Transposition M T Britt, A L Rosenbaum, F G Velez, N Thacker, D Alcorn, R Scott Foster	237
Modified Hummelsheim Procedure Augmented By Posterior Fixation For 6 th Nerve Palsy A Rizk	243
I Type Duane's Retraction Syndrome: Pre And Post Operative Saccades Evaluation G Savino, D Colucci, S Russo, N Gianfrancesco, D D Nicola, A Dickmann	249
Predictive Factor For Upshoot And Downshoot In Duane's Retraction Syndrome K Mohan, V Saroha, A Sharma	253
Enlarged Muscle Strabismus L Kowal, S Cochrane, P Mckelvie, O Bigault	257

Extraocular Muscle Cysticercosis K Mohan, V Saroha, S S Pandav, A Sharma	261
Acquired Orbital Fibrosis C Souza-Diaz	265
Extra-Ocular Muscle Limitation In Chronic Progressive External Ophthalmoplegia (CPEO) T Smith, C Richardson, A Schaefer, P Griffiths	269
Ocular Motility Abnormalities In Patients With Blepharophimosis E Dawson, J Lee, R Collin	273
Diplopia As A Complication Of Sinus Surgery: A Presentation Of Four Cases J T H N De Faber, C Kingma-Wiltschut, R J Grootendorts, W Visscher	275
Diplopia In Patients With Orbital Fractures A T Fenton, M Dirani, Z Georgievski, M A Coote, J Varvarigos	279
Anderson-Kestenbaum Procedure For Torticollis Secondary To Congenital Nystagmus P R Mithcell, M M Parks, M B Wheeler, P G Walden, C J Kelly	285
Surgical Management Of Anomalous Head Posture Due To Horizontal Gaze Palsy Or Acquired Vertical Nystagmus C Schiavi, C Bellusci, E C Campos	291
Preliminary Results Of Performing The Tenotomy Procedure On Ten Adults With Congenital Nystagmus (CN) R W Hertle, L F Dell'osso, E J Fitzgibbon, D Thompson, D Yang, S D Mellow	295
Large Horizontal Recti Recession For Treatment Of Congenital Nystagmus: Longterm Results M K Ibrahim, D T Sprunger, L A Abel, C J Winton, E M Helveston	299
Acute Esotropia In Heroin Withdrawal L Kowal, J Mee, S Nadkarni, M Kozminsky, S Kalff	305
Distance Eso Deviation Or Vergence Insufficiency B Gillies, A Brooks	307
Cyclic Esotropia: V Pattern And Upshoot In adduction J W R Pott, D Godts, J T H N De Faber	311
Occlusion For Early Overcorrection Of Exotropia E L Raab	315
Eye Muscles In Different Stages Of Thyroid Associated Orbitopathy: MRI And Tension Measurements G Lennerstrand, S Tian, B Isberg, L Tallstedt, R Bolzani, H D Schworm	321
Orthoptic Findings In Patients With Thyroid Associated Ophthalmopathy A Rydberg, L Tallstedt, H Dieter Schworm	325
Botulinum Toxin Treatment Is Helpful In Thyroid Ophthalmopathy: A 15 Year Australian Review C Dunlop, D B Dulop, P Dunlop, G Pittar	329
Nonadjustable Strabismus Surgery For Restrictive Thyroid Eye Disease D Godts, P Evens, F De Wilde, H Smet	333

**Transactions 10th International Strabismological Association
18-20 February 2006, Sao Paulo, Brazil**

Introduction Of The 2006 Bielschowsky Lecturer Helveston E	3
Changes in strabismus over time: the roles of vergence tonus and muscle length adaptation Guyton DL	7
Introduction of the CLADE Lecturer Shokida F	37
The laws and rationales of the oculomotor balance Bicas HEA	39
Duanes retraction syndrome Ozkan S	73
The trochlea Helveston EM	81
Torsional surgery Souza-Dias C	87
Different techniques for weakening the superior oblique muscle Goldchmit M	93
Weakening the four oblique muscles in the treatment of DVD Garnio S	97
Inferior oblique marginal myotomy Illanes MEO	101
Amblyopia treatment studies – 2006 Repka MX, Holmes JM, Quinn GE, Hertle RW	107
Causes and outcomes for patients presenting with diplopia to an eye casualty department Cornes R, Dawson E, Lee J	111
Ophthalmic nystagmus diagnosis and treatment and differentiation from neurological nystagmus Hertle R	117
Non-strabismic esotropias Repka MX	122
Modern surgeries for 3 rd nerve palsy Kowal L	124
Treatment of strabismus fixus with high myopia Gokygit B, Akar S, Yilmaz OF	129
Amblyopia in capillary haemangiomas Jellema HM, Prick W, van der Horst CMAM, Saeed P	137
The effect of induced anisometropia on stereovision Davis H, Keating P, Smith R, Frisby J	139
Fundoscopy in the Dutch orthoptic bachelors course Kozeis N, Tourvalis E, Gatos A, Kyropoulos A	145
A new test of visual functional assessment (VFA-K test) for developmentally delayed children Kozeis N, Saiti P, Felekidis A, Thoidou E, Triantafyllou G	153
Management of ROP: close monitoring and early cryotherapy leads to favourable results	159

Kozeis N, Triantafyllou G, Koulali E, Felekidis A	
Contrast sensitivity assessed with the Lea contrast test in 10 years-old preterm and full-term children	165
Rydberg A, Holstrom G, Larsson E	
Eccentric viewing training – comparing situation and success in Kenya and Germany	169
Verweyen P	
An original approach of microtropic amblyopia: the package	175
Paris V	
Open your eyes for infant screening	181
Lantau VK, Groenewoud JH, de Koning HJ	
Preschool visual screening: the original Belgian approach	189
Paris V, Cordonnier M, Guit-Neuforge A, Pirard-Gilbert L, Dubru JM, Mauroy MC	
Early detection of strabismus with the help of digital pictures	195
Franceschetti A, Mawas LJ, Vital-Durand F, Diraison MC, Leplat F	
Phakic (iris fixated) IOLs for anisometric myopic amblyopia in children: pilot Study	201
Igrahim MK, Ibrahim TA, Al Moor OK	
The course of intermittent exotropia in a population-based cohort	209
Mohney B	
The comparison of the surgical result between unilateral lateral rectus recession- medial rectus resection and bilateral medial rectus resection in recurrent exotropia	211
Choy DG, Park HY	
Intermittent exotropia: comparative surgical results of lateral recti-recession and monocular recess-resect	213
Fiorelli VMB, Goldchmit M, Uesugui CF, Souza-Dias	
Palpebral fissure changes after horizontal muscle surgery	219
Soltan-Sanjari M, Parsa CF, Guyton DL	
A new technique of inferior rectus recession operation	225
Gokyigit B, Ozturk A, Akar S, Kaunak P, Akbas U, Yilmaz OF	
Adjustable suture strabismus surgery in infants and children	233
Sharma M, Bazemore MG, Said HA, Guyton DL	
Strabismus surgery learning for ophthalmology residents	239
Monteiro de Carvalho K, Flores VG, Minguini N, Vieira JC, Temporini ER	
Re-recession of the medial rectus muscle in patients with undercorrected esotropia	243
Marcon GB	
Standard strabismus surgery for thyroid related ophthalmopathy	249
Rotberg L, Sprunger D, Sindhi N, Plager D, Neely D	
Surgical audit of double elevator palsy	255
Moreker S	
Drift of ocular alignment following strabismus surgery with adjustable sutures	257
Isenberg SJ, Abdarbashi P	
Suppressed synkinetic blinks accompanying saccades: an apparent artefact in eye movement recording	265
Timms C, West P	
Vergence adaptation under conditions of artificially reduced monocular vision	269
Davis H, Firth AY	
Baclofen for patients with congenital periodic alternating nystagmus	273
Comer RM, Dawson ELM, Lee JP	

Clinical and electrophysiological effects of extraocular muscle surgery on infantile nystagmus syndrome	277
Hertle RW, Yang D	
Superior oblique recession and anterior transposition in management of A-pattern exotropia with superior oblique overaction	283
Rizk A	
The effect of overacting superior oblique muscle tenectomy associated to anterior transposition of inferior oblique muscle in patients with dissociated vertical deviation	289
Krieger FT, Lambert AC, Alves TCF	
Shift of the insertion of the superior oblique muscle by sclera buckling: clinical features and surgery	297
Spielmann AC	
Adjustable superior oblique advancement for bilateral superior oblique palsy	303
Holmes JM, Leske DA	
Strabismus secondary to retinal detachment surgery: mechanisms and treatment	311
Guemes A	
A practical and theoretically optimal surgical approach to Duane syndrome	315
Parsa CF	
Latex glue: a solution for ptosis after botulinum toxin	321
Simoes B, Knupp S, Silveira T	
After-effect of alcohol on binocular vision... or the morning after the night before	325
Hockley CE, Firth AY	
Telemedicine experience with superior oblique palsy	331
Helveston EM	
Ocular motility problems following episcleral plaque brachytherapy	337
Dawson ELM, Sagoo M, Hungerford J, Lee JP	

**Transactions 11th International Strabismological Association
Update on Strabismology. Editor: SB. Ozkan
22-25 September 2010, Istanbul, Turkey**

Obituaries	
Bruno Bagolini	xxi
David Ben-Ezra	xxiii
Wilfried de Decker	xxv
William Elliott Gillies	xxvii
Joseph Lang	xxix
John P. Lee	xxxi
Arthur L. Rosenbaum	xxxiii
The Linksz award and medal	
Introduction of Linksz awardee: A. Gunnar Lennerstrand	3
DL. Guyton	
Introduction of Linksz awardee: ADN. Murray	5
BJ. Kushner	
The 11 th Bielschowsky lecture	
Introduction of the Bielschowsky lecturer: BJ. Kusher	9
DL. Guyton	
Incomitant strabismus: does extraocular muscle form denote function?	11
BJ. Kushner	
Symposia: surgical management of residual/consecutive strabismus	
Strategies for esodeviations	29
L. Kowal	
Strategies for cyclovertical disorders	31
DL. Guyton	
Role of botulinum toxin to rescue failed strabismus surgery	37
SB. Ozkan	
IOA symposium: screening strategies around the globe	
Premature for life: is targeted screening required for preterm children	43
AR. O'Connor	
Vision screening across the world	48
NS. Matta, DI. Silbert	
A Canadian model for vision screening: rational, methodology and future direction	51
LA. Walsh, GR. LaRoche	
Symposium: imaging in strabismus management – does it affect your decision?	
Ultrasound biomicroscopy in strabismus management	55
SP. Kraft	
Role of CT and MRI in strabismus management	59
TM. Bosley	
Role of muscle pulleys – the MRI evidence	60
JL. Demer	
Symposium: pharmacological treatment of strabismus	
Benefits of botulinum toxin therapy for strabismus	72
JP. Lee	
Problems with BTXA treatment	73

R. Gomez de Liano	
Correcting strabismus with Bupivacaine	74
AB. Scott	
Future therapeutic agents for strabismus	75
SP. Chistiansen	
Round table discussion: the expert view of difficult strabismus and amblyopia	77
EC. Campos, ADN. Murray, DL. Guyton, EM. Helveston, JP. Lee	
Workshops	
Amblyopia 2010; what we have and have not learned from the PEDIG amblyopia	93
treatment studies	
MX. Repka, JM. Holmes	
How to manage convergence insufficiency type intermittent exotropia	97
JM. Hwang, HK. Yang	
Can we operate exotropia with hemianopia?	106
M. Sato	
The role of dynamic retinoscopy	111
D. Somer	
Aphakia – how to correct it?	117
JTHN. De Faber	
Inferior rectus adjustment: a variation	121
MF. Shokida	
A systematic approach to eye muscle surgery in patients with nystagmus	125
RW. Hertle, L. Kowal	
Eye movement recordings and clinical evaluation: how well fo they correlate?	143
L. Kowal, L. Abel	
Evaluation of strabismus and eye movements	145
DT. Oystreck	
Management of patients with congenital fibrosis of the extraocular muscles	148
EI. Traboulsi	
Papers	
Age related distance esotropia	151
D. Godts	
Response to binocular testing in intermittent exotropia	156
H. Davis, E. Dawson, C. Powell, D. Buck, P. Tiffin, R. Taylor, J. Rahi, J. Sloper,	
P. Cumberland, MP. Clarke	
Binocular stakes in primary exotropia	161
A. Roth, H. Muhlendyck, M. Bumbacher	
The psychological impact of strabismus: does the angle really matter?	166
AE. Ritchie, P. Colapinto, S. Jain	
The contribution of cyber-sight E-consultation as a tool for the evaluation of	170
strabismus	
ERF. Sampaio, AMB. Casella, M. Goldschmit, EM. Helveston	
Which method should be used for evaluating the activity of thyroid orbitopathy:	175
clinical activity score or urinary glycosaminoglycan level?	
AA. Demirtay, S. Kutluk, G. Bugdayci, G. Kural	
Long term results of surgical treatment in Brown’s syndrome	179

S. Harmanci Karakus, B. Gokyigit, S. Akar, G. Varan, Y. Yildirim, D. Tuzun, A. Demirok, OF. Yilmaz	
Duane retraction syndrome – Alexandria study	182
D. Shawky, M. El Basha, K. Gabaliah	
High myopic esotropia: outcomes of surgical management with the Yokoyama technique	186
C. Schiavi, M. Fresina, EC. Campos	
Retinal structure in amblyopia: a study of foveal topography	191
A. Bruce, I. Pacey, JA. Bradbury, BT. Barrett	
Regression of amblyopia after occlusion therapy in adults	195
FG. Yilmaz Cinar, D. Somer, A. Burcu, N. Demir, F. Ornek	
Structure function relationship in amblyopia: assessment of retina ganglion cells by OCT and pattern ERG	199
B. Tugcu, M. Kilic, ET. Erdogan, U. Yigit, S. Karamursel	
Does size matter? An investigation of anisometropia	203
KL. Saba, R. Fitzsimons	
Laterality of amblyopia	208
MX. Repka, K. Simons, R. Kraker	
Treatment of eso and exophoria with botulinum toxin A	213
G. Lennerstrand, B. Eriksson-Derouet, M. Engstrom, S. Tian	
Botulinum toxin treatment in the management of infantile esotropia: a long term follow-up	218
H. Basmak, H. Gursoy, A. Ozer, N. Yildirim	
Botulinum toxin injection into the superior rectus for treatment of strabismus	222
N. Ali, E. Dawson, JP. Lee	
Response to intentional small surgical over-correction in children versus adults with longstanding exotropia	225
K. Arnoldi, JD. Reynolds	
Medial rectus pulley (posterior fixation) sutures: use in acquired esotropia with convergence excess	229
L. Kowal, L. Mitchell	
Surgical and functional results in operated infantile esotropia	234
D. Cioplean, G. Birlea, M. Dragomir	
Combining an adjustable recession with a posterior fixation suture	238
JM. Holmes, SR. Hatt, DA. Leske	
A comparative study of adjustable versus non-adjustable suture horizontal strabismus surgery in adults	241
SP. Kraft, K. Mireskandari, M. Cotesta, J. Schofield	
Severe complications of strabismus surgery. British ophthalmic surveillance unit: incidence	245
JA. Bradbury, RH. Taylor	
A national register for enhancing quality of strabismus surgery in the Netherlands	248
LJ. Van Rijn	
Effect of symmetrical and asymmetrical bi-superior rectus recession in patients with dissociated vertical deviation	252
LA. Teodorescu, I. Velcea, O. Andrei	
Recession of the four oblique muscles in acquired cyclotorsional nystagmus	257
AC. Spielmann	
Pearls and pitfalls in the treatment of excyclotropia	260
V. Paris	

Posters	
Only the nasal retina is used for eye alignment during monocular fixation MPM. Ten Tusscher	265
Stereo and visual acuity assessment of young children with Lea symbols RH. Lolova	269
Stereoacuity in Lang I and Lang II in the child: prediction of the anisometropia N. Zouaoui-Kesraoui, B. Azzemou, S. Bensid, G. Bouazza	272
Automatic refraction: cyclopentolate or atropine? N. Zouaoui-Kesraoui, B. Azzemou, S. Bensid, G. Bouazza	277
Stereopsis after early surgery for bilateral congenital cataracts S. Nishina, M. Tanaka, T. Yokoi, Y. Kobayashi, N. Azuma	282
Measurement of the deviation using modified Fresnel prisms N. Sergienko, S. Rykov, V. Petrov, M. Shevkolenko	287
Factors associated with treatment failure of anisometropic amblyopia A. Medghalchi, Y. Alizadeh, R. Soltanimoghaddem	290
A randomised trial of atropine versus patching for treatment of moderate amblyopia A. Medghalchi, M. Mohhammadi, K. Amirrafie	295
Correlation between axial length difference and refractive error difference in children with strabismus/amblyopia A. Tanaka, M. Yamashita, M. Tomita, M. Mochizuki	301
The effect of Banferter foils in visual acuity AMR. Mackay, CM. Leach	304
Comparison of atropine-optical penalisation versus occlusion for moderate amblyopia B. Tugcy, C. Gurez, U. Yigit	306
Contrast sensitivity functions in the normal eyes of amblyopia B. Tugcy, C. Gurez, U. Yigit, A. Agachan	309
The effect of optic disc factors on retina nerve fibre layer analysis and pattern ERG parameters in amblyopia B. Tugcy, M. Kilic, ET. Erdogan, A. Agachan, U. Yigit, S. Karamursel	312
Use of automated objective accommodative measurements to screen for amblyopia DI. Silbert, NS. Matta, EI. Singman	315
Screening for amblyogenic risk factors using the PlusoptiX S04 photoscreener on the Indigent population of Honduras DI. Silbert, NM. Matta, CL. MacCarus, EA. Matta, EL. Singman	319
Evaluation of macular thickness in eyes with strabismic amblyopia E. Oba, G. Gulkilik, M. Odabasi, GZ. Ozkurt	322
Aniseikonia in anisometropic amblyopia HD. Demir, H. Atilla, R. Duman, U. Erkorkmaz	325
Model of binocular interaction in amblyopia founded on the sensory and motor functional indices of clinical data IM. Boychuk	330
Are children who present with NLDO more likely to have amblyopia risk factors? NM. Matta, EL. Singman, DI. Silbert	335
Comparison of retinoscopy, biometry and keratometry in anisometropic amblyopia R. Duman, H. Atilla, E. Catak	339

Macular thickness and retinal nerve fibre layer thickness measurements in amblyopic and normal eyes of children using spectral domain OCT YC. Besselink, PHB. Kok, R. deKinkelder, J. Kalkman, MEJ. Van Velthoven, C. Leach, FD. Verbraak	343
Evaluation of decompensation of accommodative esotropia	346
Evaluation of decompensation of accommodative esotropia A. Medghalchi, K. Amirrafie, R. Soltanimoghaddam	346
A surgical option for antipodean strabismus: four horizontal muscle surgery AA. Assaf	350
Evaluation of the development of fusion and stereoacuity after surgical treatment in cases with infantile esotropia C. Gurez, B. Tugcu, U. Yigit	354
Botulinum toxin A treatment in infantile esotropia B. Gokyigit, S. Akar, A. Ozturk, S. Sabanci, V. Kaya, A. Demirok, OF. Yilmaz	356
Improved efficiency of posterior strapping when placed at the exact position of medial rectus pulley in purely tonic esotropia D. Thouvenin, C. Lesage, O. Norbert, E. Chapotot	359
Long-term outcomes of infantile esotropia after surgery G. Gokce, OM. Ceylan, T. Mumcuoglu, FM. Mutlu, HI. Altinsoy	363
The Bruckner reflex in esotropia and anisometropia M. Graf, B. Lorenz	367
Infantile esotropia over 20 years of age M. Kucukevcilioglu, OM. Ceylan, FM. Mutlu, HI. Altinsoy	371
Treatment outcomes in fully refractive accommodative esotropia S. Polat, CU. Can, B. Ilhan, M. Yasar, AG. Kocak Altinsoy	374
The effects of fusion and stereopsis on surgical success in patients with concomitant esotropia U. Yigit, S. Ozdemir, B. Tugcu, A. Agachan	377
How is accommodative esotropia managed around the world? An international survey of Orthoptists practice patterns KE. Lee, K. Koklanis, Z. Georgievski	380
The role of the vertical elements in long standing divergent strabismus EM. ElToukhi	384
Are large angle exodeviations more likely to recur following strabismus surgery? K. Arnoldi, BE. Spencer, S. Smith, JD. Reynolds	388
Clinical characteristics in patients with sensory heterotropia B. Tugcu, S. Keskin, C. Tanriverdi Coskun, U. Yigit	392
Postoperative recurrence of exotropia: time and ratio Z. Soyuk, B. Gokyigit, S. Akar, G. Oyur, Z. Kapran, OF. Yilmaz	394
Comparison of symmetric and asymmetric operations in the treatment of intermittent exotropia G. tatar, I. Erbagci	398
Long-term results of surgery for intermittent exotropia K. Keskinbora, F. Horozoglu, T. Gonen, O. Sever	402
Binocular visual field changes in patients with acquired homonymous hemianopia and exotropia M. Asano, Y. Fujita, M. Washiyama, R. Inagaki, T. Negishi, A. Hikoya, Y. Hotta, M. Sato	406
Personal experience in surgical treatment of secondary exotropia M. Fresina, C. Basirico, C. Schiavi, C. Gizzi, EC. Campos	410

Secondary exotropia following faden operations of medial rectus: a retrospective analysis of matched cases	413
S. Akar, B. Gokyigit, OR. Yilmaz	
The impact of prism adaptation test on surgical outcome in patients with primary exotropia	418
A.Kryak Yilmaz, S. Kose, O. Uretmen	
Surgical effectiveness of medial rectus advancement for consecutive exotropia	423
GB. Marcon, R. Pittino	
Surgical outcomes in patients with divergence excess intermittent exotropia	428
L. Niyaz, H. Gursoy, H. Basmak	
Faden operation with conventional surgery on the medial rectus: 6 months results	431
M. Dogan, B. Gokyigit, S. Akar, OF. Yilmaz	
One muscle surgery in small to moderate angle horizontal deviations	435
N. Sefi Yurdakul	
The effectiveness of anterior transposition of inferior oblique muscle for primary superior oblique muscle palsy	439
B. Gokyigit, D. Alps, S. Akur, H. Altinkaynak, OF. Yilmaz	
Surgical treatment of double elevator palsy	443
B. Gokyigit, S. Akar, PK. Hekimhan, A. Ozturk, Z. Soyuk, V. Kaya, OF. Yilmaz	
Asymmetric muscle involvement in CPEO	446
C. Loong, R. Gokani, H. Armstrong, F. Bremner	
Transposition of the lateral rectus muscle for N III palsy	450
M. Graf, B. Lorenz	
Two cases of isolated superior oblique palsy caused by endoscopic sinus surgery	455
T. Negishi, N. Katori, K. Nishimura, A. Hikoya, M. Sawada, Y. Hotta, M. Sato	
Myectomy versus anterior transposition of the inferior oblique muscle in unilateral superior oblique paresis	460
FM. Mutlu, B. Eryuruk, FC. Erdurman, HI. Altinsoy	
Therapeutic efficacy of botulinum toxin in abducens nerve palsy	464
F. Braz, S. Silva, R. Fialho, ML. Vieira	
Using torsion to assist the diagnosis of bilateral superior oblique palsy	469
K. Muecke, Z. Georgievski, K. Koklanis	
Clinical features and strabismus surgery in mitochondrial myopathies: analysis of 24 patients	474
A. Armesto, M. Plut, MC. Ugrin, E. Travelletti, H. Iturriaga, E. Nunez, A. Schlaen	
Congenital fibrosis of extraocular muscle case series	478
D. Shawky, M. ElBasha, K. Gaballah	
Congenital fibrosis of extraocular muscles: a report of five cases	482
EN. Cetin, GO. Cetin, S. Ozen, C. Yildirim	
Brown syndrome secondary to dog bite (canine tooth syndrome)	485
E. Comert, U. Beden, D. Erkan	
Is Brown syndrome a congenital cranial dysinnervation disorder?	488
M. Flaherty, J. Smith	
Yokoyama's procedure for correcting globe dislocation in highly myopic strabismus	492
S. Akar, B. Gokyigit, P. Kaynak Hekimhan, A. Demirok, OF. Yilmaz	
A case of myopic strabismus fixus with increased intraocular pressure	497
S. Haneda, M. Kanno, M. Sato, I. Oonuma, H. Yamashita	
Yokoyama procedure for strabismus fixus in high myopia after previous unsuccessful recess/resect maximal surgeries	502

B. Kaczmarek, E. Wojcik Combined mechanisms of restriction in strabismus after retinal detachment surgery	505
A. Arnesto Use of botulinum toxin type A in type I Duane retraction syndrome	509
S. Harmanci Karakus, B. Gokyigit, S. Akar, G. Varan, Y. Yildirim, D. Tuzun, A. Demirok, OF. Yilmaz Results of bilateral medial rectus muscle recession in improvement of the ocular alignment in patients with unilateral Duane syndrome	512
A. Medghalchi, M. Mohhammadi, K. Armirrafie Significance of structural muscular anomalies in etiology and operative treatment of congenital unilateral Duane's retraction syndrome	516
S. Rykov, A. Senyakina, M. Shevkolenko Modified Y-splitting procedure in Duane retraction syndrome	520
AG. Kocak Altintas, HB. Arifoglu, C. Can, S. Polat, G. Koklu Pseudo-Duane's retraction syndrome secondary to orbital trauma: case report	523
A. Pelit Symmetrical surgery in type I Duane's syndrome	526
H. Gursoy, H. Basmak, AI. Cakmak, L. Niyaz Clinical features and surgical outcomes of Turkish patients with Duane retraction syndrome	529
OM. Ceylan, G. Gokce, A. Turk, FM. Mutlu, HI. Altinsoy Ocular manifestations in children with mental retardation	533
A. Yaman, M. Parlak, AT. Berk Ocular motility improvement in Crouson syndrome after neurosurgical intervention without strabismic operation	537
B. Tugcu, O. Orum, S. Zrylan, H. Camuscu, E. Hocaoglu Ocular alignment and surgical results of strabismus in neurologically impaired patients	541
CU. Can, S. Polat, M. Yasar, B. Ilhan, AG. Kocak-Altintas Scleroderma and eye motility disorders	545
E. de Jongh, FJ. Hordijk-Noordhuizen, M. Tjon-Fo-Sang, RLJ. Van Ruyven, JTHN. De Faber Strabismus in retinopathy of prematurity	549
FS. Kosen, H. Atilla, F. Batioglu Strabismus in pediatric cataract	553
NS. Yurdakul Strabismus in congenital cataract	557
O. Uretmen, DI. Bozbiytk, S. Kose Ophthalmic outcome of preterm and low birth weight infants	560
SK. Pocan, O. Uretmen, C. Sahbazov, S. Kose, S. Nalcaci, ET. Erakgun, J. Menten Internal ophthalmoplegia after inferior oblique myectomy: a report of three cases	564
C. Yildirim, EN. Cetin, M. Acar, F. Yaldrzkaya Severe complications of strabismus surgery: British Ophthalmic Surveillance Unit: 6 months outcome	567
JA. Bradbury, RH. Taylor Management of lost medial rectus muscle during strabismus surgery	570
HI. Altinsoy, OM. Ceylan, G. Gokce, FM. Mutlu Influence of subtenon Bupivacaine injection on oculocardiac reflex in strabismus surgery	573

H. Basmak, H. Gursoy, B. Yelken, Y. Isildi Use of the Cogan lid twitch to identify myasthenia gravis	576
NS. Matta, EL. Singman, DI. Silbert Vertical nystagmus lesion of neural integrator	579
S. Moguel Reading impairment following stroke: ocular and non ocular causes	584
FJ. Rowe Prevalence of cranial nerve palsy and associations following stroke	589
FJ. Rowe Longterm results of the unilateral inferior oblique myectomy	594
G. Soyugelen, S. Demirel, N. Onursever, O. Ilhan-Sarac, B. Bostanci-ceran, I. Can Comparison of the effectiveness of peribulbar and sub Tenon's anaesthesia in horizontal strabismus surgery	597
OM. Ceylan, G. Gokce, A. Turk, FM. Mutlu, HI. Altinsoy Treatment of Heimann-Bielschowsky phenomenon: a novel procedure on two cases	602
AA. ElKamshoushy, DT. Sprunger Quality of life in children following strabismus surgery	606
EN. Cetin, GO. Cetin, S. Ozen, C. Yildirim Depression and self esteem in children with congenital nystagmus	610
Y. Yildirim, S. Akar, B. Gokyigit, DU. Yildirim, U. Celik, S. Harmanci, OF. Yilmaz Clinical characteristics of foveal hypoplasia	613
MM. Kim, JS. Hong Association of strabismus and pseudostrabismus	617
NS. Yurdakul Propranolol for capillary haemangiomas, a preliminary study	620
YC. Besselink, HM. Jellema, C. Van der Horst, P. Saeed Reoperation in strabismus	622
D. Shawky, M. El Basha, K. Gaballah Utilisation of surgical microscope when performing bilateral lateral rectus recession in large angle alternating exotropia	627
E. Oba, G. Gilkilik, C. Uslu, S. Tiryaki, M. Odabasi Comparison of the results of strabismus surgery measured from the insertion of the corneoscleral limbus in concomitant horizontal strabismus	631
A. Turk, HI. Imamoglu, H. Erdol Effects of ocular parameters in faden operation	635
M. Dogan, S. Akar, B. Gokyigit, OF. Yilmaz The comparative ultrastructural observation of inferior oblique muscle in primary and secondary overaction: mitochondria, vacuole and caveola density	637
V. Oguz, S. Cetinel, A. Sarici, MD. Bilgec, C. Arici Particular aspects of strabismus surgery in adults	641
C. Vladutiu, L. Postolache, S. Sevan The median tucking is a new technique of strabismus surgery	645
IL. Plisov, KG. Puzyrevsky Tutopatch*: extraocular horizontal muscle elongation for cases in which conventional surgery is not possible	648
AEL. Langenhorst Medial rectus pulley (posterior fixation) sutures: use in spectacle intolerant patients	651
L. Mitchell, L. Kowal	

Inferior oblique muscle resection and anteriorisation for treatment of hypertropia 657
following orbital fracture repair
IBY. Wong, CS. Ngo, S. Farazavandi

Transactions 12th International Strabismological Association

Advances in Strabismus, Editor: SB. Ozkan

1-4 December, 2014, Kyoto, Japan

1 THE LINKSZ AWARD AND MEDAL

Introduction of Linksz Awardee: John P. Lee 1

Jan Tjeerd de Faber

2 THE 12th BIELSCHOWSKY LECTURE

Introduction of the Bielschowsky Lecturer: Tsuranu Yokoyama 5

Miho Sato

Myopic Strabismus: A Surgical Strategy Derived from Pathophysiological
Imaging Studies 9

Tsuranu Yokoyama

3 SYMPOSIA

Amblyopia Management 2015

Chairs: M.X. Repka, G.A. Gole

PEDIG Amblyopia Treatment Trials: Surprising and Recent Findings 21

M.X. Repka, (on behalf of the Pediatric Eye Disease Investigator Group)

New Treatments for Amblyopia and Future Trials 26

J.M. Holmes

Picturing the Neuromuscular Causes of Strabismus

Chairs: T. Yokoyama, J.L. Demer

Extraocular Muscles: Not The Sums of Their Parts 29

J.L. Demer

The Nerve of that Muscle! Imaging the Cranial Nerves 37

J.M. Hwang

MRI Quantifies Inflammation in Thyroid Ophthalmopathy 44

Y. Nishida

Results beyond the Angle: Functional Outcomes of Strabismus Surgery

Chairs: J.J. Sloper, A.D. Molinari

Measuring Outcomes in Intermittent Exotropia 47

J.J. Sloper

Easing the Strabismus Surgery Experience 53

A. Molinari

How Stable is the Functional Cure in Congenital Esotropia 56

M.R. Ing

IOA Symposium: Ophthalmic Prisms from Diagnosis to Therapy

Chairs: G. Stephenson, K. McMain

Ophthalmic Prisms from Diagnosis to Therapy 61

D.J.M. Godts

Orthoptic prisms – calibration and true values 67

B. Wahl, K. Bendzmierowski, R. Heins, G. Waesermann

Vergence Adaptation 75

H. Davis

Sensory and Motor Connections in Intermittent Exotropia 79

A. Wakayama

4 ROUND TABLE DISCUSSION

New Strategies of Strabismus Surgery	85
Moderator: A.D.N. Murray	
Repair of Medial Rectus Transection Following Endoscopic Sinus Surgery	87
M. Goldchmit	
Lateral Rectus Periosteal Fixation	90
S.B. Özkan	
Transcaruncular Periosteal Fixation for Paralytic Strabismus in Oculomotor Nerve Palsy	93
A.G. Wang, H.C. Cheng, K.J. Lin, M.Y. Yen	
Muscle Union with Scleral Myopexy 15 mm Posterior to Insertions in Treatment of “Heavy Eye Syndrome	97
B. Stankovic	
Muscle Union: A Low Risk Profile Surgical Operation in the Treatment of 6th Nerve Paralysis	103
G.B. Marcon, R. Pittino	
Panel Discussion	110
5 WORKSHOPS	
“British and Irish Orthoptic Society – Orthoptic Research Underpinning Clinical Practice”	93
Chairs: F. S. Rowe, A. Horwood	
Clinical care for stroke survivors	115
F.J. Rowe	
Who’s Driving? Convergence and Accommodation – Fixed Ratios, Flexible Linkages or Separate Systems	120
A.M. Horwood, S.S. Toor, P.M. Riddell	
Testing BSV & Stereopsis	127
H. Davis	
Amblyopia: Research into clinical practice	131
A. Bruce	
“The Sagging Eye Syndrome: Genesis and Management of Vertical and Horizontal Strabismus in the Elderly”	135
Chairs: Z. Chaudhuri, J.L. Demer	
The Sagging Eye Syndrome: Genesis and Management of Vertical and Horizontal Strabismus in the Elderly	135
Z. Chaudhuri, J.L. Demer	
“The Course of Strabismus During a Lifetime”	135
Chairs: A. Spielmann, S. Farzavandi	
Natural Course of Untreated Strabismus	143
S. Shetty	
Can Orthoptic Exercises Change the Course of Strabismus?	147
S. Farzavandi	
The Evolution of Consecutive Exotropia in Adults	151
A.C. Spielmann	
Age Related Strabismus	156
D.E. Cioplean	
“Restrictive Strabismus”	135
Chairs: M.S. Jaafar, L. Kowal	

Surgical Management of Congenital Fibrosis of the Extraocular Muscles Types 1 and 3	163
L.R. Dagi, and D.G. Hunter	
Brown Syndrome	166
S.B. Özkan	
Strabismus Following Orbital Trauma	171
J.M. Holmes	
“Botulinum Toxin in Pediatric Strabismus”	135
Chair: S.B. Özkan	
Botulinum Toxin Administration Techniques in Children	177
G.G.W. Adams	
The Use of Botulinum Toxin in Infantile Esotropia	180
D.A. Thouvenin	
BT in Small Angle Esotropia	186
R. Gomez de Liaño	
6 PAPERS	
Section 1: “Amblyopia and Epidemiology”	
Asymmetrical Accommodation in Anisometropic Amblyopia	191
S. Toor, A. Horwood, P. Riddell	
Effectiveness of Using GABA-Ergic Medications in Complex Treatment of Amblyopia in Children.	197
I.M. Kuzhda, O.M. Pityk	
Prevalence of Symptomatic Non-Strabismic Binocular Problems in US and Japan Schools	202
M.K. Powers, Y. Morita	
Views of Patients on Impact of Eye Movement Disorders	207
F.J. Rowe	
Section 2: “Binocularity and Diagnosis”	
Intercortical Visual Transfer in Human Binocularity	211
M.P.M. ten Tusscher, P. Van Schuerbeek	
Management and Outcomes of Pseudostrabismus	216
M.D. Mills, M.M. Wong, J. Huang, G.S. Ying, G. Binenbaum	
Heterophoria, Fusional Amplitudes and Stereoacuity in School Aged Children	221
C. Lança	
Candidate Genes for Strabismus Susceptibility Chromosomal Loci	225
T. Matsuo	
Unmasking Bilateral Inferior Rectus Restriction Using Degree of Cyclotropia	230
K. Arnoldi, J.D. Reynolds	
Section 3: “Magnetic Resonance Imaging”	
Magnetic Resonance Imaging Demonstrates Novel Compartmental Mechanisms of Vertical Fusional Vergence	235
J.L. Demer, R.A. Clark	
Magnetic Resonance Imaging Findings in Infantile Esotropia with and without Consecutive Exotropia	240
F. Çalış, H. Atilla, P. Bingöl Kızıltunç, C. Alay	

Exotropia and Unilateral High Myopia in Adults. Look at the Sound Eye? A 26 Cases Study. D. Thouvenin, L. Lequeux, O. Norbert	245
 Section 4: “Strabismus Treatment”	
Influence of Strabismus Surgery on General Health-Related Quality of Life in Children and Their Parents Y. Sato, T. Hiraoka, T. Oshika	251
Electrical Stimulation of Nerves to the Levator and Oculorotary Muscles A.B. Scott, J.M. Miller, K.K. Danh	256
Role of Botulinum Toxin A in Treatment of Intractable Diplopia S.B. Özkan, I.A. Ünsal	258
 Section 5: “Surgical Technique”	
Surgery without an Assistant: Tricks and Tips A.C. Spielmann	263
Graded Vertical Rectus Tenotomy in Small Angle Hypertropia Z. Chaudhuri, J.L. Demer	267
Minimal Invasive Esotropia Surgery. High-Frequency Radio Wave Surgery Technique. Mathematical Modeling of Surgery Dosage I. Aznauryan, V. Balasanyan, E. Aznauryan	272
The Clinical Experience from Using Donor Sclera for Tendon Lengthening in 324 Cases of Strabismus Surgery from 1993 to 2014 J. Blohmé, R.L. Thorisdottir, L. Gränse, G. Stigmar	274
Vertical Rectus Muscle Transposition with Resections for Complete Unilateral Sixth Nerve (Abducens) Palsy S.P. Kraft, M. del P. González-Díaz	278
 Section 6: “Strabismus Surgery”	
Primary Treatment of Infantile Esotropia with Medial Recti Recession Combined with Faden Operation: Low Incidence of DVD Decompensation A.L. Armesto, M.C. Ugrin, E. Travelletti, B.A. Schlaen	283
The Marginal Myotomy of the Inferior Oblique Muscle at the N. Trochlearis Paresis I.L. Plisov, K.G. Puzyrevskii, N.G. Antsiferova	289
Surgical Results of Superior Oblique Tendon Tuck Combined with Inferior Oblique Muscle Weakening for Congenital or Idiopathic Superior Oblique Palsy M. Saeki, A. Hikoya, M. Sawada, Y. Harada, Y. Hotta, M. Sato	293
Combined Rectus Muscle Transposition with Posterior Fixation Sutures for the Surgical Treatment of Double Elevator Palsy (The Augmented Knapp Procedure) S. Akar, B. Gökyiğit, T. Kurt, U. Çiçek, P. Kaynak, C. Öztürker, G. Karabulut, E. Y. Pınarcı, S.A. Bayar, S. Oto	299
Characteristics and Surgical Outcome of Consecutive Exotropia with Different Etiologies M. Sawada, A. Hikoya, T. Negishi, Y. Hotta, M. Sato	304
Prospective Evaluation of Dose-Effect Relationship of Medial Rectus Advancement in Consecutive Exotropia G.B. Marcon, R. Pittino	309

7 POSTERS

Poster Section 1: “Amblyopia”

- The Pattern of Improvement in Visual Acuity During Amblyopia Therapy 317
M. Shioya, N. Ogino
- Dependence of Visual Fixation Stability on Retinal Light Sensitivity in Patients with Amblyopia of Various Degrees 323
M. Kashchenko, E. Antonova, M. Magaramova, G. Kachalina, E. Pedanova
- Congenital Nasolacrimal Duct Obstruction as a Risk Factor for Anisometropia 326
G. Stanković-Babić, M. Vujanović, S. Cekić
- The Effect of Rolipram on Adult Visual Cortical Plasticity in an Experimental form Monocular Deprivation Amblyopia Model in Rats 330
E. Emre, Ö. Altıntaş, B. Katre, Z. Şık Sarman, H. Efendi, B. Özkan, D. Akakın, Ö.T. Çilingir, I. Özdemir, S. Solakoğlu
- Amblyopia and Unilateral Congenital Glaucoma 335
C. Berrozpe-Villabona, L. Morales-Fernández, R. Gómez de Liaño-Sánchez, J García-Feijoo

Poster Section 2: “Binocularity”

- Flaw of Time-Separation Dichoptic Presentation – Simulated Pulfrich Pendulum As An Example 339
A. H. Wang
- Influence of Test Distance on Stereoacuity in Intermittent Exotropia 345
Y. Seki, A. Wakayama, R. Takahashi, I. Umebara, F. Tanabe, K. Abe, Y. Shimomura
- Evaluation of the Accommodation Response While Viewing Stereoscopic Images By Binocular Wavefront Sensor 350
H. Kanda, H. Nagatani, T. Fujikado
- Recovery of Binocular Vision by Dissociation of Accommodation and Convergence Using Laser Speckles 354
A. Bazarbaeva, T. Kashchenko, T. Korniyushina, M. Magaramova, R. Katsanashvili
- Testing the Feasibility of A New Visual Acuity Test for Infants Using An Eye Tracking System. 358
A. Ohno-Tanaka, E. Noda

Poster Section 3: “Examination Methods”

- Evaluation of Refraction in Children with Hyperopia Using the PlusoptiX A09 Device 363
T.A. Korniyushina, Magaramova, A.K. Abdulsadykova
- Efficacy of the Infrared Photograph with a Selective Wavelength Filter for Detecting Esotropia in Young Children 367
Y.J. Yoo, H.K. Yang, J-M. Seo, K.G. Kim, J-M. Hwang
- Monitoring the Velocity of Saccades by Using an Eye Tracking Device 372
M. Mihara, K. Kakeue, K. Fujita, R. Tamura, A. Hayashi
- The Analysis of Gaze Position in Reading by Using High Speed Video Oculography 377
M. Hirota, H. Kanda, S. Miyagawa, T. Endo, T.K. Lohmann, T. Morimoto, T. Fujikado
- A New Gene for Congenital Fibrosis of the Extraocular Muscles (CFEOM) -

Time for a New Classification? M.P. Flaherty, R.V. Jamieson	382
Relationship Between the Trochlear Nerve Diameter and Superior Oblique Muscle Volume D.S. Lee, H.K. Yang, J.H. Kim, J.M. Hwang	387
Magnetic Resonance Imaging Demonstrates in Axial High Myopia with Esotropia: Normal Extraocular Muscle Lengths, but Adduction Tethering by the Optic Nerve J.L. Demer	393
High-Resolution Orbital MRI Reveals No Change in Lateral Rectus Pulley Position After Longitudinal Lateral Rectus Split with Nasal Transposition in Bilateral Oculomotor and Trochlear Nerve Palsy Z. Chaudhuri, J.L. Demer	397
Poster Section 4: "Neuro-Ophthalmology"	
Does My Patient Really have "Congenital" Nystagmus? G. Holmström, M.L. Bondeson, U. Eriksson, H. Åkerblom, E. Larsson	403
Strabismus in West Syndrome Z. Chaudhuri, S. Madan, R. Jain	405
How Brain Pathology may Cause Infantile Strabismus M.P.M. ten Tusscher	410
Ophthalmological Features of 43 Patients After Functional Hemispherectomy F. Audren, C. Bulteau, M. Fohlen, G. Dorf Müller, O. Delalande	415
"Pain and Double Vision" A Description and Discussion of the Clinical Features of Some Recent Cases Presenting with Painful Ophthalmoplegia C. Loong, R. Scheimann, H. Armstrong, F. Bremner	419
Convergence and Accommodation Development Relate to Corrected Age in Premature Infants A.M. Horwood, S.S. Toor, P.M. Riddell	425
Isolated Third Nerve Palsy Following Coronary Angiography S. Akar, B. Gökyiğit, E.D. Aygıt, S.A. Bayar, S. Oto, Ö.F. Yılmaz	430
Diplopia and Ptosis Experienced Whilst on Royal Duty! H. Armstrong, C. Loong, F. Bremner	434
When Less is More C.H.Y. Lai, J.C.C. Yeung	438
A Case of Craniopharyngioma Presenting with Monocular Vertical Nystagmus. A.M. Mackay	441
A Case of Ophthalmoplegic Migraine at 38 Years After Onset Y. Shimizu, H. Tabuchi, S. Asayama, O. Mimura	443
Ophthalmic Artery Aneurysm Presenting as Ipsilateral Trochlear Nerve Paresis T.H. Tsai, H.C. Lin	447
Transitory Consecutive Esotropia After Amitriptyline Treatment for Nocturnal Enuresis-Case Report D.E. Cioplean	452
Clinical Features of Oculomotor Disorders and Nystagmus Among Children Presenting Congenital Glaucoma D. Denis, A. Aziz, L. Sauvan, O. Fakhoury, E. Pieri, F. Matonti	456

Epibulbar Osseous Choristoma Found During Strabismus Surgery M. Saeki, A. Hikoya, M. Sawada, Y. Harada, Y. Hotta, M. Sato	459
Poster Section 5: “Strabismus Surveys”	
Clinical Spectrum and Management of 298 Cases with Brown Syndrome at Tertiary Eye Care Center B. Gökyiğit , O.B. Ocak , A. İnal, E.D. Aygıt, S Akar, C. Öztürker, B. Başarır	465
Horizontal Strabismus-Outcome of 596 Cases in IIEI&H, Dhaka, Bangladesh. M. Khatun, M.M. Hossain, N.H. Kallol, R. Sultana, Q.S. Iftekhar, S. Rahman	470
Survey of Strabismus Surgeries in Japan S. Nishina, A. Miki, A. Wakayama, T. Yagasaki, T. Fujikado	474
Clinical Spectrum and Management of 582 Cases of Duane Retraction Syndrome O.B. Ocak, B. Gökyiğit, E.D. Aygıt, A. İnal, S. Akar, A. Demirok	479
Poster Section 6: “Cyclovertical Deviations”	
A New Comprehensive Approach for Management of Congenital Monocular Elevation Deficiency Leading to Acceptable Outcome – A Report of Two Cases C. Chakraborty	485
Long-Term Postoperative Course of Vertical Strabismus in Children Y. Hatsukawa, T. Fujino, H. Ineyama, M. Ishizaka	491
The Bilateral Inferior Oblique Muscle Anterior Transposition and its Efficiency in Obtaining the Vertical Alignment of Esotropia Accompanied by Bilateral Dissociated Vertical Deviation and Bilateral Inferior Oblique OverAction D.E. Cioplean	495
A New Approach to Inferior Oblique Over Action (IOOA) without Cyclotorsion. B. Gökyiğit, S. Akar, E.D. Aygıt, Z. Alkın, O.B. Ocak	499
Absence of Superior Oblique Tendon in Congenital Superior Oblique Palsy: What Kind of Surgery ? N. Gravier	503
Effects of Bilateral Inferior Oblique Myectomy in V-Pattern Exotropia with Oblique Dysfunction Y.O. Yokoyama, T. Yagasaki, M. Maeda, M. Tsukui	507
Poster Section 7: “Restrictive Strabismus”	
Superior Oblique Muscle (SOM) Insertion Abnormality in Bilateral Brown Syndrome: Case Report A.E. Bahadır-Kılavuzoğlu, B. Gökyiğit, E.D. Aygıt	511
“Surgical Outcome of Graded Y split in Patients with Duane’s Retraction Syndrome” S. Chandramouli, K. Narendran	515
Surgical Results of Temporal Transposition of Superior Rectus Muscle in Duane’s Retraction Syndrome and Lateral Rectus Palsy S. Chandramouli, K.Narendran	520
Lateral Rectus Recession with a Y-split of the Recessed Lateral Rectus in Duane’s Retraction Syndrome Type III (Exotropic)	524

M.N.H. Kallol, R. Kekunnaya, Q.S. Iftekhar, M. Khatun Marcus Gunn Jaw winking and Duane's Retraction Syndrome	528
K.-E. Ra (C.-Y. Lo) A Patient with Vertical Retraction Syndrome	532
E. D. Aygıt, B. Gökyiğit, A. Inal, O.B. Ocak, A. Demirok Surgical Management of Strabismus Following Scleral Buckling Surgery	534
T.-H. Tsai, H.-Y. Liu, L.-L. Wu Combined Scleral Buckling and Strabismus Surgery for Three Cases of Rhegmatogenous Retinal Detachment with Exotropia	537
F. Ikeda, A. Nakao, S. Noda, K. Ishida, S. Kishi Strabismus Surgery in Thyroid-Related Ophthalmopathy	541
M.-C. Lin, J.-Y. Lin, Y.-S. Bee, S.-J. Sheu	
Poster Section 8: "Paralytic Strabismus"	
Surgical Outcomes of Acquired Bilateral Superior Oblique Palsy	547
M. Washiyama, R. Inagaki, A. Hikoya, M. Saeki, Y. Harada, Y. Hotta, M. Sato Bilateral Nasal Transposition of Inferior Rectus Muscle in the Management of Bilateral Acquired Fourth Nerve Palsy	552
C.-C. Habault N. Gravier, E. Laurent Vertical Muscle Transposition without Lateral Rectus Weakening for Treatment of Exotropia with Adduction Deficit	555
A.A. ElKamshoushy, D.A. El Sayed, D.T. Sprunger Long Term Results of 'Gokyigit's Split Lateral Rectus Transposition to Medial Rectus Area' Operation for Complete Third Nerve Palsy	560
B. Gökyiğit, S. Akar, E.D. Aygıt, O.B. Ocak, A. Inal Central Serous Chorioretinopathy Following Medial Transposition of Split Lateral Rectus Muscle for Complete Oculomotor Nerve Palsy	565
A. Soni, R. Sorenson	
Poster Section 9: "Surgical Methods"	
Comparison of Four Augmented Recession Techniques	569
B. Gökyiğit, S. Akar, E. D. Aygıt, A. Demirok Long Term Results of Deeper Muscle Fibers Recession of Inferior Rectus Operation	574
B. Gökyiğit, S. Akar, P. Kaynak , A. Demirok The Median Tucking: Our Ten-year' Experience in Strabismus Surgery	579
K.G. Puzyrevskii, I.L. Plisov, N.G. Antsiferova Ahn's Modification for Rectus Muscle Recession Surgery	583
D.H. Kim, H. Ahn Knot Assisted Hang-Back Suture Technique	586
T. Negishi, A. Murakami	
Poster Section 10: "Varia"	
Decompensation to "Bad Day" Strabismus After Pneumotometry Measurement in a Case of Cyclic Esotropia	591
T.-H. Tsai, F.-Y. Liu, P.-I. Kuo Surgical Success for Infantile Esotropia and Strabismus Associated with Neurological Impairment	594
P. Bingöl Kızıltunç, F. Çalış, C. Alay, H. Atilla Surgical Reinforcement of the Pulley Suspensions to Restore the	

Displaced Lateral Rectus and Superior Rectus Paths in Myopic Strabismus Fixus K.-E. Ra (C.-Y. Lo)	600
Five Cases of Acute Acquired Concomitant Esotropia Associated with Myopia: Prism Adaptation Test and Surgical Planning N. Nishikawa, H. Ito, S. Ishiko, A. Yoshida	605
Stepwise Adjustment for Congenital Nystagmus with Anomalous Head Posture and Strabismus C.B. Tsai	610
Clinical Results and Sides Effects on 25 Cases of Incobotulinum Toxin A (Xeomin) Injection in Congenital and Acquired Strabismus A. Aziz, F. Matonti, O. Fakhoury, D. Denis	613
Comparison of Ocular Response Analyzer Results Before and After Strabismus Operations E.D. Aygıt, B. Gökyiğit, S. Akar, E. Karaman, I. Yılmaz, A. Özkaya	616
Surgical Outcomes of Strabismus with Microphthalmia T. Uemura, S. Nishina, T. Yokoi, Y. Nakayama, M. Yagihashi, K. Manzoku, S. Akaike, S. Ogonuki, N. Azuma	619

Transactions 13th International Strabismological Association

Advances in Strabismus, Editor: Rosario Gomez de Liano

18-22 March, 2018, Washington, DC, USA

Introduction of Linksz Awardee: Frank Martin	3
D L Guyton	
Introduction of the Bielschowsky Lecturer: Anna Horwood	7
S Kraft	
Accommodation and Convergence- Rations, Linkages, Styles and Mental Somersaults	10
A M Horwood	
Re-Operation Strategies in Strabismus: The First Art Jampolsky Lecture	25
B J Kushner	
Six Pearls for Treatment of the 6 th Nerve Palsy	35
JTHN de Faber	
New Approaches to Third Nerve Palsy	39
M Goldchmit, MD	
Superior Oblique Advancement On Adjustable Sutures	41
J M Holmes	
Can We Correct Torsion With Ir Surgery	44
M Sato	
Significance of Compartmentalisation in Extraocular Muscle Palsies	48
J Demer	
Current Perspectives on Congenital Cranial Dysinnervation Disorders	52
E I Traboulsi, M D, M Ed	
Cfeom-Pearls for Management	57
A O Khan	
Treatment Guidelines in Typical Forms of Duane Syndrome	60
G G W Adams	
What to do in Atypical Duane Syndrome	62
S B Özkan	
Management of Consecutive Exotropia	66
L Lindberg	
Traction Tests to Evaluate Tight Inferior Oblique	69
R Gomez de Liaño MD, E Hernandez Garcia MD	
The Role of Orbital Mri in Patients with Strange Strabismus Patterns	72
G B Marcon MD, R Pittino MD, N Martini MD	
Contribution of Examination Under Anesthesia tp Decision Making in Strabismus Surgery	78
D A Thouvenin	
The Effect of Suture Adjustment on Surgical Outcomes in Adults with Symptomatic Intermittent Exotropia	83
J J Sloper, N Raoof	
Dichoptic Training and Video Games in the Treatment of Amblyopia: Fantasy or [Virtual] Reality?	86
L Colpa O C	
Benfits. Barriers and Understanding: The Importance of Spectacle Wear in Young Children	92
A Bruce	
Newer Signatures for Evidence Based Evaluation in Strabismus: Imaging and Genetics	95

Z Chaughuri, J L Demer Innovate Technologies for the Treatment of Adult Strabismus	99
S L Pineles MD, MS, M Y Chng MD, J M Holmes BM, BCh, R Kekunnaya MD, S B Özkan MD, F G Vlez MD	
New Pediatric Vision Questionnaires for Assessing Health Related Quality of Life and Functional Vision in Childhood Eye Conditions	103
J M Holmes, S R Hatt, D A Leske, Y S Castaneda, S M Wernimont, Libermann, C S Cheng-Patel, E E Birch	
Treatment Outcomes for Amblyopia Using PDIG amblyopia Protocols- A Perspective Study of 844 Cases	106
M Buckle, C Billington, P Shah, J D Ferris	
Novel Binocular iPad Cartoon Video Program Improves Stereoacuity and Distanc Fusion in Treated and Untreated Amblyopes	110
V M Chen, N Quinn, S Klein, C S Choi, S H Yoo, M B Strominger	
Observer Variability in Assessing Passive Cyclorotation Using Guyton's Exaggerated Traction Test Before Strabismus Surgery <i>(Cannot read names of authors due to photocopying)</i>	114
Does Local Analgesics Reduce Opioid Consumption After Strabismus Surgery?	117
A M Hansen (RN), L B Jensen (RN), J P Saunte (MD), J S Fomsgaard (MD), T Torp- Pederson, M S Borger	
Injection of Bupivacaine & Botulinum Type A Toxin to Treat Strabismus	120
T M Cunha, J M Miller, A B Scott	
Comparison between Augmented Recession and Medical rectus Recession with Posterior Scleral Fixation in Partly Accommodative Esotropia	124
H Al-Hayouti, G Gawdat, A Awadein, H Elhilali	
Comparison between Medial Rectus Pulley Fixation and augmented Recession in Children with Convergence Excess and Variable-Angle Infantile Esotropia	129
H M Fouad, MD, M A Abdelhakim, MD, A Awadein, MD, H Elhilali, MD	
Unwinding of Cyclodeviation After an Adjustable Harada-Ito Procedure	134
L Liebermann, D A Leske, S R Hatt, B Bata, J M Holmes	
Delayed Adjustment of Short Tag Noose Stures in Strabismus Surgery Allows the Effect of Surgery to be Evaluated in Real Time Up to 7 days	137
C S Loenkqvist MD, T Torp-Pedersen, MD, PhD, J P Saunte MD	
Microcatheter-assisted trabeculotomy versus two-site tredeculotomy with rigid probe trabeculotome in primary congenital glaucoma	141
Y M El Sayed, G L Gawdat	
Pediatric strabismus cases possibly related to excessive use of information and communication technology devices	145
T Yoshida, S Nishina, M Matsuoka, S Akaike, S Ogonuki, T Yokoi, N Azuma	
Abnormal biorbital angle in patients with infantile exotropia	149
M Tsukui, MD, T Yagasaki, MD, PhD, Y O Yokoyama, MD	
The classification of diseases of binocular diplopia in the elderly	153
M Kawai, T Goseki, H Ishikawa, M Hoshina, N Shoji	
Strabismus Combined with Congnital Optic Disc Anomaly	157
H Y Choi, MD, PhD, H Jeon, MD	
Whole exome sequencing in familial primary comitant exotropia	161
Z Chaudhuri, J John, A Mukhopadhyay, S Aneja, B K Thelma	
Developmental Change of the Biorbital angle in Normal Japanese Children	164
Y O Yokoyama, T Yagasaki, M Tsukui	
Sensory testing and stereopsis with Nintendo 3DS game	169
R W Arnold, MD, A Damarjian, K Smith, OD, MA	

Investigation of Maximum Disparity and Stereopsis H Davis, D Buckley	171
New Developed Four Light Test Mobile Application R Gómez-de-Liaño, M Nieves-Moreno, MD, M Alarcon, L Mrales-Fernández	175
Correlation of Disorders of the Spatial Vision System (Strabismus) and Amblyopia by Changes in Neural-Reflex Excitability and Metabolic Disorders at the Stages of Restoration of Pre-,Perinatal Encephalopathy S Salmanova, E Kasimov, N Aliyeva	183
The Effect of Strabismus Muscle Surgery on Corneal Biomechanics. A Preliminary Study. E Gendy H A, Khalil N M, Eissa L M, Shousha S M	187
Binocularity after Strabismus Surgery in Adult Patients H Atill, P Bingöl-Kiziltunc	191
Normal Range of Ocular Dections in Various Age Brackets by Prism Shifting Light- Reflex Test W Honglertnapakul, P Praneeprachachon, P Pukrushpan	199
Horizontal saccadicvelocity in atients with exotropia before and aftr strabismus surgery M Mihara, A Hayashi, K Fujita, K Kakeue, R Tamura	203
Correlation of Diplopia and Quality of Life in Patients with Graves Orbithopathy Alarcón, M, Nieves, M, De Pablo, L Niño, C, F Vigo, J, Gomez De Liaño, R.	207
Strabismus sursoadductorius or IV nerv pulsay: similar clinical picture, different MR Imaging features G B Marcon, R Pittino, N Martini	211
A Quantitative Oblique Traction Test: Clinical Applications S P Kraft, A J Connor	215
The importance of the Orthoptist in the treatment of neurological acquired binocular diplopia S Polychroniadis-Scouros, DBO, D, C F Freeman, DBO, T	219
The fix and follow grade: a new method of grading the visual performance in infant H Jeon, MD, J Jung, MD, H Y Choi, MD, PhD	223
Comparison of Three Contrast Sensitivity Tests A M I Palmowski-Wolfe, K Ulrich	227
A Comparative Study of Vicryl Sutures 6-0 and 7-0 strength capacity for Strabismus Surgery I E Aznauryan, A A Shpak, V O Balasanyan, E A Kudryashova	231
Role of Botulinum Toxin A in Cyclic Esotropia- A Long Term Follow Up A I A Unsal, S B Özkan, Ş Ziylan	234
Characteristics of surgical outcomes of acquired nonaccommodative comitant esotropia with diplopia in children and young adult with different functional prognoses N Nishikawa, Y Kawaguchi, I Yamaga, K Yamada, Y Tanaka, S Honda, A Yoshida	238
Surgical Dose-Response Relationship in Patients with Down Syndrome with Esotropia: A Comparative Study C Gurez, O B Ocak, A Inal, E D Aygit, S Clik, Z Huseyinham, A Demirok, B Gokyigit	242
A New Approach to Treat Esotropia in Patients with Large V-Pattern M S Abdelhafez, MD, FRCS	246
Lateral rectus resection in type 1 Duane Retraction Syndrome (DRS) S Celik, A Inal, O B Ocak, E D Aygit, A Demirok, B Gokyigit	254
Fascia Lata Augmented Nasal Transposition of Split Lateral Rectus for	257

Reoperation of Complete Third Nerve Palsy CB Tsai, MD, PhD	
An Easy and Safe Operation Technique for Monocular Elevation Deficiency (MED)	261
B Gokyigit, S Celik, A Inal, E D Aygit, O B Ocak	
Induced Hypertrophy of Extraocular Muscles after the Administration of Synthetic Peptides into Them	264
I L Plisov, N G Antsiferova	
Primary Bilateral Medial Rectus Resections in Large Angle Childhood Exotropia	268
C S Ronconi, B L Ducca, D C Issaho, D R Weakley	
Recognizing Bradyopsia in Children	273
A O Khan	
A Phase 2, Randomised, Controlled Trial of Providone-Iodine/Dexamethasone Pphthamic Suspension for the Treatment of Adenoviral Conjunctivitis	277
J S Pepose, A Narvekar, A Ahuja, W Liu, R Haque, R D Gross	
Comparison of Transscleral Sutureless Intraocular Lens and Retropupillary Iris- Claw Lens Fixation for Aphakia without Capsular support in Children	281
Shuaib A, El Sayed Y, Kamal A, El Sanabary Z, ElHilali H	
Visual Function Assessment in Children with Congenital Zika Virus Infection	286
J D Rossetto, I Irena, L M Neves, J C B Silveira, L Haefeli, M E L Moreira, A A Zin	
Risk Factors and Time to Failure of Pediatric Angle Surgeries	289
N M Mettias, Z El Sanabary, Y El Sayed, A Esmael	
Topical Cyclosporine-A in Pediatric Severe Dry Eye Associated with Ocular Graft Versus Host Disease	292
P Bingol-Kiziltunc, T Celik, N Yalcindag, M Ertem, E Ince, H Atilla	