Contents

InteRyc-volume 4, October, November and December, 2001

ALL INDIA STRABISMOLOGICAL SOCIETY

JKA Institute of Strabismology and binocular Vision

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President AISS, Director JKAI & Author & Editor of InteRyc:
Sudha Awasthi Patney, MBBS, MS (Ophth), FRCOphth (London)

(NOTE: The following is a repeat for obvious reasons)

A special request to the members

This is an appeal to all the members to please start a campaign for prevention of amblyopia. Actually I am of the opinion that a legislation is needed badly, that will make it compulsory that every child's eyes are thoroughly examined by the age of 1 year, so that measures can be taken to prevent amblyopia (strabismic, anisometropic and ametropic) and strabismus. If it could be done for vaccination, it can be done for eye examination also.

At present there is general indifference towards this subject. It is also obvious that ophthalmologists have to be trained not to advise delay in treatment because the patient is a young child / infant. It is tragic that now that parents have become aware of the need for early treatment, the ophthalmologists are advising them to wait until the child is old enough for examination. We have to advise them strongly against this practice. If we can not compel the Government to bring in legislation, we can at least alert the public and the ophthalmologists.

Many more Institutes of strabismology are needed in various parts of the country. Would you, dear members, be willing to take on the task of starting a branch of this JKA Institute in your area? Any help and advice that I am capable of providing will be forthcoming. You will need some basic instruments to start with. Orthoptic instruments are the cheapest of the lot, have you noticed? *Please let me know at once if you are interested.*

Please try to alert the patients, parents and other relatives, the public and other physicians, particularly ophthalmologists and pediatricians about the dangers of amblyopia, strabismus and other complications if significant refractive errors are not corrected within the first years of life and if strabismus is not treated immediately.

It is very painful to see so many cases of amblyopia. This condition, as you know, is totally preventable if treated early, whatever the age of the patient, the younger the better. The best time is immediately after the start of strabismus. However, it is obvious that to prevent ametropic and anisometropic amblyopia and in many cases strabismus, the children have to be thoroughly checked at least once by the age of 1 year. The saying that prevention is better than cure is *truest* in the case of strabismus and amblyopia.

REMOVE YOUR COBWEBS (Ryc)

(The section on information)

1. About the Institute
2. About the Society
3. About the courses
4. About the workshop
5. About InteRyc, the News-Letter-Update of the society
6. About the Indian Orthoptic Journal to be restarted soon.

1. *About the Institute*

A) *The need to have a squint treatment center* and a training center for strabismologists and orthoptists in India could not be ignored anymore in *nineteen fifties*. Dr. H.L.Patney felt it most acutely as he had trained as a premedical student, medical Graduate and postgraduate in ophthalmology in UK. He had been doing orthoptics, contact lenses and all types of surgery as a Registrar in the Ophthalmology department

of the Royal Cardiff Infirmary in Cardiff, Wales, UK back in 1942-44. He had the good fortune of being the assistant of Sir Tudor Thomas and used to assist him in his private practice also. Sir Tudor Thomas was a living legend in those days and was a pioneer in keratoplasty. However, he did all types of operations including retinal detachment repair and plastic surgery. Young Dr. Patney was given lots of opportunity to operate even on Sir Thomas' private patients. Sir Thomas was a very famous and busy man and he must have had confidence in Dr. Patney's prowess in surgery as he gave him even major surgeries to do. Sir Thomas' words and signatures on Dr. Patney's old books testify to this.

In 1946 when Dr. H.L. Patney was asked by Dr. Mehrey, the founder of Sitapur Eye Hospital to make a plan for the expansion of the hospital, he did a thorough job. He included in the plan, the name of *a squint / orthoptic department and school* along with those of ocular pathology, instrument factory, blind school, optometry school, postgraduate institute of ophthalmology, trainee's hostels, staff's residences etc. Much later he used to say that everything in that plan materialized except a boundary wall.

Dr. Mehrey who was himself keen on keeping everything upto date in his hospital happily worked hard to realize their dreams. It took them a few years to get a first rate orthoptic department and school.

1) The beginning was with *an orthoptic department* in early fifties by Dr. Patney who taught a smart compounder in the hospital the basic techniques of orthoptic examination and exercises on synoptophore.

2) *The Orthoptic School* was started in 1960 and according to plan Dr. Sudha Awasthi (who was at that time in K.G. Medical College, Lucknow) was asked to join the hospital by Dr. M.K.Mehra, (Dr. Mehrey's son). Dr. Awasthi had just passed her MS (Ophth.) from King George's Medical College, Lucknow, and was known to be specially interested in the subject. She joined Sitapur Eye Hospital and was soon after sent to London in October 1960.

3) A first rate orthoptic department, the first in India, which was on the lines of that at Moorfields Eye Hospital (High Holborn branch where Mr. T. Keith Lyle was the Director), was established after she returned from London after 1 year's training under Mr. Lyle.

B. *The need for imparting training in the subject of strabismology* (including orthoptics), was repeatedly impressed upon Dr. Sudha Awasthi (now Patney) by another living legend of those days, Mr. T. Keith Lyle. He was in 1960 and later for many years, the Dean of Institute of Ophthalmology, London and Director and Surgeon-In-Charge of the famous Orthoptic Department of the Moorfields Eye Hospital (High Holborn branch), London. Dr. Sudha Awasthi was training under him to further her somewhat limited knowledge of the subject, already gained during the running of an orthoptic clinic by her from 1957 to 1959 under the guidance of Prof. M.K.Mehra, a double FRCS.

Mr. Keith Lyle insisted that she should also train like an orthoptist-trainee in their Orthoptic School to gain first hand practical knowledge so that she can train orthoptists and Ophthalmologists / strabismologists with confidence. She stayed at Moorfields Eye hospital for 1 year and was then sent to Germany and Switzerland to learn first hand, pleoptics from the two pioneers (Prof. Cuppers of Giessen, W. Germany and Prof. Bangerter of St. Gallen, Switzerland, respectively). On her return to India in 1961, the ground was ready for her to impart to the ophthalmologists and the orthoptic trainees, special training in strabismology and orthoptics. The *first Squint / Orthoptic department and Orthoptic School of India had already been started at Eye Hospital, Sitapur, which was the premier eye institution of India in fifties, sixties and seventies* (for some more information see the inside of the back page). During her days there she kept on running the squint department, training the orthoptists, DOMS candidates (as Associate Professor in the Nehru Postgraduate Institute of Ophthalmology) and visiting ophthalmologists wishing to learn the subject.

C. *The idea of starting a training institute for strabismology* was conceived soon after Dr. H.L. and Dr. Sudha Awasthi-Patney left Sitapur and came to Rajkot.

The center for squint treatment was being run since their arrival in Rajkot in 1972 but formal inauguration was performed in 1983. However, due to Dr. H.L. Patney's serious and prolonged illness the plan had to be kept suspended. The Institute started functioning in real earnest since 1996 but the foundation was being strengthened by Dr. Sudha Awasthi-Patney since 1994. She took a 4.5 months study tour of USA and UK in 1994, followed by annual visits to update her knowledge in preparation for starting and running the Institute and reviving the AISS. New orthoptic instruments were bought and old ones serviced.

D. In 1996 the Institute became functional along with the newly revived AISS.

E. At present there are only 30 members in good standing, i.e., the members who have paid up their dues until last year (2000). In all there were 88 registered members. Invitation to join the society has never been repeated / sent out again after 1997.

F. The Institute is running a fellowship course by correspondence. A diploma course is soon to be started for people who find the fellowship course too hard.

G. Other activities are the various annual contests, the winners getting trophies and cups and a total of Rs.4350 in cash prizes every year.

H. There is a fellowship (Rs.1000/pm) for members 35 years old or younger during their stay at Rajkot for practical experience. So far nobody has applied for it.

2. *About the Society*

(1) All India Strabismological Society (AISS) was *conceived and started* by Dr. H.L. Patney and Dr. Sudha Awasthi in 1967. The idea came to them during their participation in the founding session of the International Strabismological Association (ISA), which was held in 1966 at Giessen, W. Germany. Prof. Cuppers, one of the pioneers of pleoptics was the head of Ophthalmology at the Universitats Augenklinik (University Eye Clinic) there. Mr. Keith Lyle was the founding president and Dr. G.K. von Noorden, the founding secretary. Dr. Sudha Awasthi was one of the panelists and speaker at the ISA meeting.
One of the 4 aims of ISA is to spread the knowledge of the subject of strabismology. The other three are given on the inside of the front cover.

(2) The founding meeting of the society was held in Calcutta in 1967 during the AIOS conference. Neither Dr. Patney nor Dr. Awasthi wished to be the President. They asked Dr. L.P.Agarwal to be the first president and he accepted. Dr. Awasthi was the founding secretary and Dr. Patney the treasurer. Many senior and well-known ophthalmologists joined the society.

(3) The first regular meeting was held at Ahmedabad during the AIOS congress in 1968. At the executive committee meeting, a proposal to have the *society registered* was passed. This was done same year..

(4) The first activity of the new society was to hold a 7-days refresher course (workshop) on squint and other ocular motility disorders in September 1967 at Sitapur. It turned out to be very successful, probably because it was the first of its kind in India. Members who were mostly senior ophthalmologists attended it; some of them were fairly well known.

(5) Every year new elections were held and the management of the society changed hands. Somewhere around 1976 the society became defunct.
Note: Frankly speaking this is a drawback in the democratic system that a lovingly conceived and nurtured institution / organization may die a premature death if it falls into indifferent hands.

(6) *Revival of the society* was proposed during a meeting (of old members and some other ophthalmologists), that was hastily arranged at the request of Dr. Sudha Awasthi-Patney in 1981 just after the conclusion of Dr. Nagpal's very successful National Symposium on squint. It was decided to revive the society during the next conference of AIOS and Dr. Sudha Awasthi-Patney was asked to be the convener and do it. New and old members gave their names to be enrolled again.
Dr. Awasthi-Patney unfortunately failed to attend the next AIOS conference in 1982 due to the sudden serious illness of Dr, Patney. She requested Dr. B.T. Maskati, the Hon. Gen. Secretary of AIOS to make an announcement that Dr. Awasthi-Patney can not come now but she will be sending circulars for a meeting of the society to be held later at Rajkot. She never knew what happened but Dr. Prem Prakash started a new society. It is no use going into the details now.

(7) At last the AISS was revived in 1996. At present there are 88 members but out of them only 29 *are members in good standing (having paid at least upto year 2000*). Only 9 members have paid for 2001. This is an appeal to the non-payers to please send their subscription for 2001 to enable us to continue sending the InteRyc.

3. *About the courses*

(a) *Fellowship*: Theory part is now to be sent in 15 installment of 50-100 pages each as the X installment having 5 parts was extended to 334 pages. The number of installments was raised from 11. Apart from the theory part, some practical experience has to be gained at the Orthoptic / Ocular Motility Clinic, Rajkot. The period of the practical experience has to be determined by the fellows themselves but a minimum of 1 month is preferable.

(b) *Diploma* (to be started soon): Detailed information on request.
(c) *Certificate of* Proficiency: If the ophthalmologists / strabismologists wish to get some practical experience only, as many of them did when I was at Sitapur Eye hospital, they are welcome. They will be given a testimonial (Certificate of Proficiency) for the period of their stay here.

4. About the workshops / Refresher Courses

The idea of holding strabismus / amblyopia workshops is very much alive. Members shall be notified about the time and place. The course will be of a week's duration.

5. About InteRyc, the News-Letter-Update of the society

At present it is being published every three months. Previously it was coming out every two months. If we revive the Indian Orthoptic Journal that had been started by Dr. Sudha-Awasthi Patney and Dr. J.M. Pahwa in 1963 at Sitapur, the InteRyc will have to be discontinued.

6. About the Indian Orthoptic Journal: Action on this proposal is being delayed because I had asked for members' views about the replacement of the InteRyc by the Indian Orthoptic Journal. So far no response has been received. Your views are important because the InteRyc is a quarterly publication and the Journal will be published once a year. Secondly, the matter in a journal is useful in a different way than that in a news letter-update. I would like to know which one do you think you would find more useful.

I would very much like to know about your preference before going on with the proposal.

ATTENTION

1. This is a repeat request to members to let us know if they *have not received any one or more volumes of the InteRyc*, the next installment of the course material or *a receipt of the money they have sent*. There is always a chance that things may go missing while in transit.

2. The *CME (member of the year 2001) quiz-No.3* is included in this volume. Please answer it, cut along the dotted line and send it back by mail. The answers to the previous CME quiz are now being sent to the members along with the new quiz.
   The questions in each quiz are drawn from the material given in that particular issue of the InteRyc under the headings of Strabismus Summary Series, Update, InformIT and Short Review article on Strabismus etc.

3. The *update questionnaire* is printed on the back of the CME quiz. Please answer it if there is any change or addition in the information about phone No., FAX number, mobile phone number, pager number, E-mail address or a web-site address.

4. *Background of the Indian Orthoptic journal*: Dr. Sudha Awasthi (Patney) was inspired greatly by her teacher Mr. T. Keith Lyle (read about him under the heading of "In fond memory" on the inside of back cover). He stressed the need of making the subject of strabismus popular among ophthalmologists and campaigning for early diagnosis in infants and children to prevent amblyopia. After coming back to Sitapur Eye Hospital in 1961, she conceived the idea of bringing out an Indian Journal of Orthoptics on the lines of the British Orthoptic Journal. Dr. J.M. Pahwa (who liked the idea and agreed to look after the practical aspect) and Dr. Awasthi (Patney) started the journal in 1963 and looked after it as the editor and the joint editor respectively until her departure from Sitapur in 1972. Dr. Pahwa continued publishing it until a few years back. About 2 years back he asked Dr. Patney if she would like to restart publishing the journal to which she replied in the affirmative. The journal would probably replace the InteRyc, as it will be difficult to publish both. Dr. Pahwa sent some old papers relating to the society

sometime back for which we are grateful to him. We are going to invite him to become an honorary fellow of the society he served in the past as president for a year.

5. *I.D. cards:* Only six members have sent their photographs for making laminated ID cards. This is an appeal to the other members to please send their photographs so that their cards can be prepared and sent to them. We need ID card / stamp size photos. However, the members who have sent passport size photos, need not send smaller ones We reduced the size on the computer.

6. The fees for the whole of theory part of *fellowship course* are now Rs.1500 *including the mailing charges*. The mode of mailing each installment is either by registered A.D. post or by couriers, mostly by the latter as it is faster. However, couriers do not go to all the places. Moreover, an installment sent by the courier did not reach a fellow and I sent another one by registered A.D. post. Now therefore, we shall have to send them by post despite more expense involved.
   The usual procedure: *Installments are sent one by one* accompanied by the relevant question paper. The fellow has to answer the questions and send the answer sheet back, on receipt of which the next installment of the course is sent. Previously the fees had to be sent for one installment at a time. This has been changed to save the fellow's time, effort and postal expenses. It is now payable in one lump sum, in advance in the form of a demand draft for Rs1500, in the name of Dr. S.A.Patney, S/B account No. 4256 at UCO bank. As explained in earlier InteRycs this is a no profit-some loss venture.
   As decided and indicated in the InteRyc-volume 4, 1999, the *InteRyc volumes 1-4 of the year 2000* have been sent to members in good standing only. The membership subscription for year 2001 became due on 1st January 2001. Members, who do not pay the subscription for the year 2000 by the end of June 2001 (extended date) will not be sent future InteRycs. This is because of financial constraints. Despite subsidizing the expenses we are finding it hard to keep afloat. The members, therefore, *are requested to send it soon. Now the book-post charges have become Rs.5 (a steep rise from Rs.2).*

7. The InteRyc volume 1, 2001 is not being sent to members who are not in good standing (who have not paid the subscription for the last 3 years, i.e., 1998, 1999 and 2000). They had paid only once in 1996-97 at the start when they had registered for the first time. We kept on sending them mail and InteRyc regularly until recently.

All the members, who have not paid the subscription for one or more years, are requested to send it immediately. The subscription for 2001 became payable on January 1, 2001. A LIST OF DEFAULTERS WILL BE PUBLISHED IN the InteRyc volume 4, 2001 to help the members remember.

NEWS

The results of the contests 2000 are repeated in this volume, below.

(1) Names of the prize-winners:

1. *The best-paper prize* goes to Dr. Tejas Mehta of Rajkot for his paper titled "Results of surgery on Stilling Turk Duane's Retraction syndrome".
2. *The prize for best Eye-Rhyme* has been won by Dr. AK Rathore of Bhavnagar.
3. *The best cartoon prize* has been claimed by Dr. Venugopal, G. of Mannarkad, Kerala.
4. *Remembering series quiz*: Dr. R.K. Rathore gets the prize for the first and best entry.
5. *The member of the year* title has been won by Dr. S.K. Pal of Calcutta.

We congratulate the winners.

(2) Second announcement of 2001 contests: *Entries are invited for the following contests*:

1) *Teleconference*: Papers are invited on any subject concerning strabismus, amblyopia, nystagmus or other disorders of ocular motility and binocular vision. The best paper will be awarded Dr. H.L.Patney Memorial Trophy, Rs.2500 in cash and a testimonial to the effect.
2) *Eye-Rhyme*: Entries are invited for short poems in English / Urdu / Hindi. The subject for the poem is "eyes". Any type of poetry in which the word is mentioned will qualify for the contest. The best poem will get a prize of Rs.250 in cash, a cup and a testimonial.
3) *Cartoon*-Eye: Please send entries for Cartoon-Eye. Any subject concerning the eyes is acceptable. The best cartoon will get cash prize of Rs.250, a cup and a testimonial.
4) *Remembering series quiz*: What is the name of the strabismologist who invented a muscle transplant procedure (named after him) for horizontal muscle palsy?
5) *The member of the year 2001 will be chosen on the basis of performance in the quarterly CME quiz-2001).*

Note: The entries should reach us latest by 31st may 2002. The amounts of cash prize in items 1 and 2 have been reduced due to poor quality of entries. Please do your best.

COMING UP

Note: I realize that News-Letters are likely to be thrown away. Therefore some of the up coming events have been repeated in this volume 4, 2001.

1. April 21-26, 2002: 29th International Congress of Ophthalmology, Sydney, Australia. *Contact*: Congress Secretariat, ICMS Australasia Pty Ltd., GPO Box 2609, Sydney, NSW, Australia. Ph.: +61 (2)-9241-1478; FAX: +61 (2)-9251-3552; email: opthal@icmsaust.com.au.

2. April 21-26, 2002: 13th Symposium of International Society on Metabolic Eye Disease, Istanbul, Turkey. Contact: Heskel M. Haddad, M.D., 1125 Park Avenue, New York, NY 10128, USA; Ph.: +1 (212)-427-1246; FAX: +1 (212)-360-7009.

3. May 5-10, 2002: The Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Ft. Lauderdale, FL, USA. Contact: ARVO, 9650 Rockville Pike, Bethesda, MD 20814-3998, USA. Ph.: +1 (301)-571-1844; FAX: +1 (301)-571-8311.

4. May 25-27, 2002: VI International Course of Ophthalmology, Cali, Colombia. Contact: Dr. Piedad Gonzalez P. email: Clinicaoftdm@andinet.com

5. May 30-June 2, 2002: VI Congress of the Mediterranean Society of Ophthalmology, Alicante, Spain. Contact: Jorge L. Alio. Ph.: +34 (902)-33-33-44; FAX: +34 (96)-526-05-30; email: oftalio@ibm.net.

6. June 9-11, 2002: The 27th Indonesian Ophthalmolosts' association (IOA) Annual Meeting, Jakarta, Indonesia. Contact: Dr. Bondan Harmani, Department of Ophthalmology, University of Indonesia, JI. Salemba Raya No. 6, Jakarta 10430, Indonesia. Ph.: +62 (21)-334-878; FAX: +62 (21)-392-7516; email: perdami@indo.net.id.

7. July 21-25, 2002: 7th International Conference on Low Vision, Goteborg, Sweden. Contact: Conference Secretariat, Congrex Goteborg AB, Att: Vision 2002, Box 5078, 402 22 Goteborg, Sweden. Ph.: +46 (31)-81-82-00; FAX: +46 (31)-81-82-25; email: vision2002@gbg.congrex.se; Web-site: www.congrex.com/ vision2002.

8. July 22-25, 2002: *XXIII Pan-American Congress of Ophthalmology, Buenos Aires, Argentina. Contact: Pan-American Association of Ophthalmology PAAO* Administrative Office, 1301 South Bowen Rd., Ste. 365, Arlington, TX 76013-2286, USA. Ph.: +1 (817)-265-2831; FAX: +1 (817)-275-3961; email: paao@paao.org.; Web-site: www.paao.org.

9. October 20-23, 2002: *2002: Annual American Academy of Ophthalmology Meeting, Orlando, USA. Contact:* Ph.: +1 (415)-561-8500 extension 304; FAX: +1 (415)-561-8576.

STRABISMUS SUMMARY SERIES PART XV

In this XV part of Strabismus Summary Series topic of "Getting familiar with orthoptic instruments is being taken up. In most of the European and Britis h squint departments / ocular motility clinics / strabismologists' offices practice of orthoptics is still alive. However, in USA, the country that probably has the maximum number of strabismologists, the conservative treatment does not seem to be very popular. The conservative management in that country (investigation and treatment) mainly consists of occlusion to treat amblyopia

Getting familiar with orthoptic instruments: Part 1

This series will not only deal with instruments for use in orthoptic / ocular motility clinics / strabismologists' offices but also in those ophthalmologists' offices who are even slightly interested in diagnosing strabismus and other ocular motility disorders. The list for the latter is given first in the following text.

(1) *List of instruments that are a must for every ophthalmologist who is interested in diagnosing cases of strabismus, amblyopia and related disorders*:

1. Vision testing charts including those required for young children, e.g., C, E, animals etc.
2. Maddox Wing
3. Maddox Rod
4. Prisms, if possible the Prism Bars set
5. Diplopia Goggles
6. Wirt's / Titmus stereotest
7. Fixation objects: wooden tongue depressors with small pictures on both ends to attract children's attention, otherwise a pen will do.
8. RAF Near Point Rule
9. Ophthalmoscope with a fixation target like star or small circle
10. Retinoscope
11. Trial set and frame
12. Worth Four Dots Test (may be incorporated in the test types drums etc.)

Note: Many of the above are already present in every ophthalmologist's office. None of the others is expensive. An ophthalmologist knowing what to do and how to do it can accomplish a lot with them.

(2) *List of additional items for a full scale orthoptic/ strabismologist's / ocular motility clinic*:

13. Major amblyoscope, e.g., synoptophore
14. Hess / Lees / Lancaster screen
15. Allen's preschool vision testing cards
16. Neutral density filter
17. Occluders for cover test
18. Bagolini's striated lenses
19. Hallberg's clip-on lens holder
20. Translucent occluder of Spielmann
21. Maddox Cross if there is enough space in the office
22. Maddox Double Rod
23. Maddox Rod with prisms (hand-held)
24. Diploscope
25. Deviometer

NOTE: The items 16 to 24 are optional although one would prefer to have items 16 to 20. Description and uses of each instrument will be given in future editions of InteRycs.

(To be continued in the InteRyc volume 1, 2002)

UPDATE

Note: Update contains abstracts/short outline of the articles that are of clinical interest and that have been recently published in the medical/ophthalmic literature. If the reader is interested in any of the abstracts / short outline items given below, a copy of the requested full article can be sent.

Update-General Medicine

Sleep disorder linked to Headaches and Snoring (By Alan Mozes): News, The New York Times, copied from the Internet: Researchers say that frequent morning headaches may be a sign of sleep apnea, a disorder in which the airways are blocked, disrupting sleep, leading to drowsiness during the day time. According to Dr. Jeanetta Rains, director of the Center for Sleep Evaluation at Elliot Hospital and an Assistant Professor of Psychiatry at Dartmouth Medical Center, both in New Hampshire. 84% of the frequent headache group were snorers and 81% had sleep apnea. Another study from John Hopkin's University Hospital in Baltimore, Maryland found that people who had chronic daily headaches were 2 1/2 times more likely to be snorers than others who did not have chronic morning headaches. The overall conclusion of researchers was that frequent morning headaches, especially when associated with snoring, is a high risk factor for sleep apnea.

(For more information one can go to the web-site named "http://dailynews.yahoo.com/h/nm/20010706/hl//sleep_headaches_1.html)

Update-General ophthalmology

1. *Nd: YAG laser treatment for premacular subhyaloid Haemorrhage (Rennie, C.A. et al: Eye, 15:519-524, 2001)*: Premacular subhyaloid Haemorrhage produces severe loss of vision, that may be prolonged if left untreated. Nd: YAG laser treatment can help by rapidly diffusing the subhyaloid Haemorrhage into the vitreous by creating a posterior hyaloidotomy. The authors conducted a study to assess the results and to compare them with those of conservatively managed patients. *Conclusion*: Nd: YAG laser hyaloidotomy is a safe and effective procedure.
2. *Long-term assessment of combined A and E treatment for the prevention of retinal degeneration in abetalipoproteinaemia (ABL) and hypobetalipoproteinaemia (HBL) patients (Chowers, I. et al: Eye, 15:519-524, 2001)*: Authors studied ten patients with ABL and three with HBL who had been treated with oral vitamins A and E supplements. *Conclusion*: Combined oral vitamins A and E supplementation, if started before the age of 2 years can markedly attenuate the severe retinal degeneration, which is associated with untreated ABL and homozygous HBL. However, despite early treatment funduscopic and functional retinal changes do occur.
3. *Trabecular meshwork most logical site for gene therapy*-glaucoma may leap ahead of macular degeneration in the race toward application of gene therapy (Epstein, D.L., a report by Rochelle Nataloni from Durham, USA, Ocular Surgery News Europe / Asia / Pacific, volume 12, No.11, 2001, p.8.): A permanent cure of glaucoma can be possible by insertion of the corrective protein gene. A study group under the leadership of Dr. Terete Borras has developed techniques of gene transfer / gene therapy directed at trabecular meshwork.

Update-Strabismology

1) *A clinical evaluation of random dot stereoacuity cards in infants (Calloway, S.L. et al: Eye, 15: 629-634, 2001)*: The purpose of this study was to clinically evaluate the random dot stereoacuity cards that have been developed by Birch and Salomao, on a number of infants aged 12 months or less and to generate baseline normative data. Method 177 tests were performed on 41 infants. *Conclusion*: The test can not be conducted in the age group of 0-2 weeks. No stereopsis could be demonstrated in this age-group. The test was found to be a useful clinical tool to monitor infants aged 17-36 weeks, who are at risk of binocular vision disorders.

2) Bilateral recession-resection surgery for convergent strabismus fixus associated with high myopia (Bagheri A, Adhami F, Repka MX., Strabismus 1:225-230, 2001): The authors report two patients with more than 20 diopters of myopia, severely restricted abduction, and more than 90 Delta of acquired esotropia. Marked axial elongation of the globes was present. Each underwent large bilateral medial rectus recessions and bilateral lateral rectus resections. The deviations were significantly reduced and abduction improved with combined horizontal recession-resection surgery on both eyes.

3) *Adjustable squint surgery in children (Dawson E, Bentley C, Lee J.: Strabismus 2001 Dec;9(1):221-224)*: The adjustable suture technique in adult strabismus surgery is well established. The aim of this study was to assess its feasibility/outcome in a younger age group. A retrospective review of 359 case notes of patients, under the age of 16 years, who underwent squint surgery between 1992 and 1999 was carried out. Of these, 45 (13%) had undergone surgery with the adjustable suture technique. Post-operatively, 34 patients achieved an angle of +/minus sign 10 pd and required no further treatment. We sought co-operation from the parents and encouraged their active participation during adjustment. It was not necessary for any child to return to the operating theatre to finalize adjustment. We conclude that this is an effective treatment in motivated children, as 76% (34/45) obtained an excellent result.

4) *Squint surgery in the over sixties (Dawson E, Bentley C, Lee J., Strabismus 4:217-20, 2001)*: We examined the indications for strabismus surgery in patients 60 years of age or older. A retrospective review was carried out of 111 case records of such patients operated on between January 1992 and May 1999. There were 59 females and 52 males, ranging in from 60 to 90 years (mean 67.3 years). The diagnoses were varied: the largest groups were cranial nerve palsies and consecutive strabismus. Fifty-six patients demonstrated binocular potential pre-operatively and 60 post-operatively. Twenty-three patients underwent reoperation. Twenty-eight patients also received botulinum toxin. The mean follow-up was 15 months, 54 patients were discharged within 6 months. Elective strabismus surgery in this age group constituted 7% of strabismus surgery activity (single surgeon). There were no complications. There is a demand for strabismus surgery in this ever increasing age group.

5) *Combined strabismus and phacoemulsification cataract surgery: a useful option in selected patients (Squirrell D, Edwards M, Burke J. Eye 15(Pt 6):736-8, 2001):*
Four procedures of combined strabismus and cataract surgery are described in 3 elderly patients with strabismus of differing aetiologies. Two patients underwent one procedure; the other patient underwent two combined procedures, one to each eye. The visual acuity improved in all 3 patients. Post-operative alignment of the visual axis was achieved which allowed resolution of symptomatic diplopia in patient 1, functional binocular single vision in patient 2 and a noticeably reduced compensatory head posture in patient 3. *Conclusions*: Combined strabismus and cataract surgery is a safe procedure that can optimise visual alignment and improve visual acuity with a minimum number of operations.

InformIT

Errata: We apologize for the mistake in the introduction of the InformIT in the InteRyc volume 3, 2001.

Face Recognition

By: Mr. Sameer Shah, Technical IT advisor to the JKA Institute of Strabismology

(NOTE: Mr. Shah is a teacher at the NIIT, Rajkot one of the famous institutions that is imparting training in the subject of Information Technology (IT). He was my teacher at NIIT. We are fortunate to have his help in this series on IT. In this installment he gives some extremely useful but simple information).

The human ability to look at a face, memorize it, and recall it when you meet the same person again is entering the domain of the computer.
Called facial recognition, this technique enables the computer to use your face as your password, or identify criminals by looking at photographs of a crowd and matching these to an existing database.

The advantages of face recognition over other biometrics techniques are that it's non-intrusive and less expensive to set up. The subject of recognition needn't click on anything or give his fingerprint, for instance, his photograph can be captured even without his knowledge. It's less expensive in the sense that databases—of employees, national citizens, criminals, etc—may already exist. The hardware required for a small home or office setup is also not very expensive—all you need are standard video cameras with a resolution of at least 320x240 and a frame rate of at least 3–5 fps, a good video card, and a processor with enough speed. After this, all you need to buy is the software.
Like other biometrics techniques, recognizing a face involves taking pictures of that face, extracting its features, creating a template from these features, and comparing this to existing templates in a database.

Retina scanning and iris scanning are two biometrics technologies that use the characteristics of human eyes for authentication
Like fingerprints, the retina and iris of the human eye exhibit uniqueness for each human. The retina is an internal part of the eye, while the iris is the outer colored part. The retina is located at the back of the eye, and is a set of thin nerves which senses the light coming through the cornea, pupil, eye lens and vitreous humor, in that order. The pattern of blood vessels which make up the retina are unique for each individual.
The unique pattern of the blood vessels can recorded by a retina scan device. The individual whose retina pattern has to be scanned, must have his eye located at a distance of not more than a half inch. Also the position of the eye must not move while it is scanned. While scanning the individual looks at a rotating green light. For recognizing the patterns about 400 unique points on the blood vessels are recorded. For authentication, the recorded pattern is compared against the blood vessel pattern of the individual. If they match, access denied else prohibited.
Since the retina is an internal portion of the eye, retina scanning is considered intrusive. Thus the individual may be hesitant to get exposed to the scanning.

Moreover, retina scanning is a costly and sophisticated process.
The iris has colored streaks and lines that radiate out from the pupil of the eye. The iris provides the most comprehensive biometrics data after DNA. And the chances that any two people may have the same pattern is one in 10 to-the-power-78, which is way above the current population of the Earth. In this scanning, the characteristics of the iris are taken into account. About 266 unique points (compared to 40 in finger prints) are recorded and converted into a 512 byte IrisCode (somewhat similar to barcode). For recording the iris pattern, a monochrome camera is used and the distance between the eye and the camera can

be at most 3 feet. The patterns located at the inner edge—at the pupil—of the Iris is recorded. The IrisCode constructed contains information the characteristics and position of the unique points.
Iris scanning can be done at day or night, with glasses or contact lenses on. Since iris scanning can be done from up to 2 feet away, it is not considered intrusive.

SHORT REVIEW ARTICLE ON STRABISMUS

ADHERENCE SYNDROME & GRAVES OPHTHALMOPATHY (II and final part)

More and more cases of thyroid disease and consequently those of thyroid ophthalmopathy are coming to the notice of physicians and ophthalmologists. Significant number of cases of strabismus secondary to acquired fibrosis of extraocular muscles (EOM) and adhesions due to various causes, e.g., postoperative, thyroid myopathy etc. are seen in ophthalmology particularly ocular motility clinics. Thyroid oculo-orbitopathy, as thyroid ophthalmopathy is preferably termed, is a difficult condition to treat, so is strabismus grouped under the name of adherence syndrome. Thyroid oculo-orbitopathy belongs to the group of the nonparalytic-incomitant-restrictive strabismus.

A short review of these two conditions is being presented in two installments of *short review articles on strabismus*. Part 1 was presented in InteRyc, volume 3, 2001 and now the part 2 follows in this InteRyc volume 4, 2001.

Pathology

The bellies of the extraocular muscles are the primary sites of the disease. The sheaths of the tendons at the insertion are not usually affected. The inflammation of the muscle leads to the following as indicated in the etiology earlier:

1 Proliferation of fibroblasts
2 Secretion of mucopolysaccharide
3 Production of collagen
4 Striated cells of the extraocular muscles (EOM) degenerate with the collection of collagen
5 Fibrosis of EOM takes place.
6 Swollen and fibrosed muscles make the main mass of the increased soft tissue contents of the orbit.
7 The fibrosis of EOM leads to the defective ocular motility.
8 The increase in the volume of the soft tissue contents of the orbits leads to proptosis.

Differential diagnosis of Graves' ophthalmopathy

There are many conditions that can be confused with Graves' ophthalmopathy. The names and the main differentiating features are given in table 42-1.

Management

1. *Conservative (non-surgical)*
2. Surgical

Table 42-1:

No	Name of the condition	Distinguishing clinical features	CT scan/ B-scan
1	*Inflammations of the orbit,* e.g.:	Usually unilateral but could become bilateral	CT scan may show thick-ened Tenon's capsule & feathery orbit-al densities. B-scan: may show sub-Tenon edema & squaring off of optic nerve head. In myositis tendon is also affected.
	-Orbital myositis	Pain on moving the eyes, inflammatory signs, vascular congestion, proptosis, ophthalmoplegia Good response to systemic corticosteroids	
	-Orbital pseudotumor	Usually unilateral and above mentioned signs except ophthalmoplegia in acute stage	
2	*Orbital space occupying lesions, e.g.,* -Tumors likes dermoids and epidermoids, glioma, meningioma, lacrymal gland tumor, rhabdomyosarcoma[23].	Proptosis is usually not central except in cases of optic nerve tumors. Palpation of the orbit may help. Last resort is biopsy.	CT scan / MRI / Orbital ultrasonography help in differentiating.
	-Metastatic carcinoma breast and secondary malignant melanoma[26]	May cause orbital inflammation & enlargement of EOM, producing a picture like Graves disease	
	-Cysts	May leak causing orbital inflammation producing a picture like Graves disease	
3	*Orbital vascular disorders*: Vascular engorgement due to increased venous pressure caused by carotid arteriovenous fistula or a dural arteriovenous anomaly	Vascular engorgement leads to EOM enlargement, conjunctival chemosis and congestion, proptosis and ophthalmoplegia thus resembling Graves' disease[19]. Last resort: angiography	CT scan / MRI / Orbital ultrasonography may show dilated vessels.
4	*Orbital involvement in systemic diseases:* Lymphoma Sarcoidosis & Amyloidosis	Nodular tumor in superonasal orbit: ? lymphoma More common in trochlear area. They can cause muscular enlargement. All 3 can produce proptosis. Presence of involvement of other organs and biopsy can decide	
5	*Enlargement of globe due to very high myopia*[27]	Patient having high myopia with restricted ocular motility, enlarged globes & post.staphylomas	
6	Adjacent sinus infection, e.g., Ethmoidal sinusitis	May lead to orbital cellulitis that can mimic Graves'disease. Presence of fever and high leukocytic count may help in diagnosis.	

Conservative (non-surgical) management:

Not surprisingly there are a number of therapies that are in use, being tried, have some people's support or are still mostly under trial. The various non-surgical treatments are mentioned below:

(a) Medical treatment
(b) Radiation therapy

(c) Prismotherapy
(d) Denervation
(e) Plasmapheresis

Medical treatment

This mode of therapy uses various drugs for the underlying condition, the symptoms and the complications. It aims at relieving the symptoms and controlling the basic pathology if possible. Most of them are for symptomatic relief.

The following guidelines apply to most cases:

A. Treatment of thyrotoxicosis if indicated. The endocrine imbalance must be corrected before considering surgery. However, the former does not affect the strabismus or the restricted motility[32, 33, 35].

B. Artificial tears and decongestant drops for exposure keratitis and conjunctival congestion and chemosis

C. Corticosteroids for acute congestive stage of the disease. Although they can not improve the fibrosis and the effects thereof, they do reduce orbital congestion and proptosis. The visual acuity may improve thereby as the pressure on the optic nerves is also reduced. They do not affect the ophthalmopathy.

A word of caution is in order here. The corticosteroids should not be used except as a short-term therapy in the acute congestive phase. Long-term use may lead to the well-known side effects.

D. Immunosuppressive drugs have been tried for the treatment of Graves' disease, namely Cyclophosphamide, Azathioprine[28] and Cyclosporine[29]. The first two alone or together have been found effective in most patients during the congestive stage, in about 50% they improved the muscles and in a few patients the proptosis was reduced. Cyclosporine in combination with corticosteroids was effective in reducing extraocular muscles' abnormally large size and proptosis along with the improvement of visual acuity.

Radiation therapy

It is used in early stages of Graves' diseases. If it is combined with administration of corticosteroids, effectiveness is enhanced and the dose of the later can be reduced[30]. It does not affect the restriction in motility and strabismus. This mode of therapy does not work after the fibrosis has set in.

Prismotherapy is indicated under the following circumstances:

(1) If the surgery for strabismus is contraindicated and there is bothersome diplopia.

(2) If there is diplopia and the surgery is delayed due to some reason, prisms can be used during the waiting period.

Special points regarding prescription of prisms:

- The main indication of prisms in the patients of Graves' ophthalmopathy is bothersome diplopia.
- Conventional prisms allow clearer vision. Fresnel prisms though lighter and thinner, usually become yellowish after some time. The visual acuity is not so good through Fresnel prisms[31].
- Bifocal prisms can be prescribed for primary position and depression. Because of the inferior rectus being the most common muscle to be severely fibrosed and tight, the superior rectus action is defective and usually asymmetrical. There is hypotropia of the worse affected eye. The deviation is maximum in elevation, lesser in primary position and least in depression, hence the need for bifocal prisms.
- For smaller angles the deviation present in primary position is corrected. If there is a refractive error needing correction the prism power can be ground into the lenses.
- For moderate degree of strabismus Fresnel prisms can be given to get rid of diplopia in primary position.
- Prisms do not work for large angles.
- The strabismus found in Graves' disease is incomitant (varying in various directions of gaze and fixing either eye). Its degree can also change from time to time. Power of the prisms may therefore have to be changed repeatedly.
- Even after surgery the deviation is not corrected in all directions because of the incomitant nature of the strabismus. In such cases surgery can be carried out and postoperative residual angle can be corrected in primary position and depression (for reading). The advantage of surgery is that only a small prism will be needed in the postoperative period.
- Even after readjustable surgery the prisms may be required.

(a) *Denervation*: Botulinum toxin has been used with success in acute stages of Graves' disease. Fusion can be restored and if the basic condition is controlled the benefit may be permanent. However, once the fibrosis of EOM has set in, any improvement is usually temporary and the eyes go back to the pre-Botulinum injection stage after its effect wears off.
(b) *Occlusion* has to be resorted to when the diplopia is bothersome, it can not be corrected with prisms and surgery can not be carried out due to some reason. Usually it is temporary and is used during the waiting period.
(c) *Plasmapheresis* is another mode of therapy being tried in acute stages. It acts by getting rid of autoantibodies and immune complexes.

Surgical treatment

The aim of surgery is to *get rid of diplopia and achieve binocular single vision* in as many positions of gaze as possible but particularly in primary position and depression (the positions most often used).

When to operate

(A) When the basic condition is well controlled with medicines and inflammation has subsided.
(B) The angle of strabismus and ocular motility status is stationary for at least 6 months[35]
(C) Patient does not want to wear prisms, especially high powered ones
(D) There is bothersome diplopia not relieved by prisms (either too big or too incomitant)

What to do

- If orbital decompression is contemplated it should be done before squint surgery.[* 38]

- If there is a *large esotropia* along with a small vertical deviation, only the horizontal deviation may be corrected to avoid an overcorrection of the vertical tropia. The latter can be managed, if necessary with small prism or if the fusion is present even that may not be required[32].

- The reverse of the above also holds true. If there is a *large vertical deviation* and a small horizontal one, the vertical is better corrected by surgery and the horizontal, if not controlled by the force of fusion, can be corrected by prisms to achieve fusion and get rid of diplopia.

- *If elevation is restricted* and there is a hypotropia in primary position *a recession of the fibrosed (diagnosed by forced duction test) inferior rectus* is the usual preference. Special care should be taken during the dissection of the muscle to free it from the Longwood's ligament to prevent a lower lid retraction. However, it is not easy in these cases because of the tightness of the inferior rectus. After recessing the inferior rectus the conjunctiva has to be recessed too for a good result.

- *If there is esotropia due to fibrosis of medial rectus* and restriction of the action of lateral rectus, a large recession of medial rectus is usually effective. This procedure is also more effective if combined with recession of conjunctiva in longstanding cases where conjunctiva and tenon's membrane have become shrunken and nonelastic.

- For the *fibrosis of other extraocular muscles* similar procedures are quite effective.

- If there is *significant hypotropia as well as esotropia*, medial rectus may well be involved in fibrosis but there is a possibility that the convergent deviation is due to the fibrosis of the inferior rectus and not due to that of medial rectus. To decide if such is the case, forced duction test should be performed after disinserting the inferior rectus for recession/tenotomy. If the test is now negative and abduction (as well as elevation) is free, there is no need to tackle the medial rectus.

- If the muscle (inferior rectus, medial rectus or any other) is *severely fibrosed along* with the tenon's membrane and the conjunctiva due to the severity of the disease and the long duration, a large recession may not be sufficient. In such cases the recession is combined with a conjunctival recession. Alternatively a *free tenotomy* has to be done occasionally

along with a conjunctival recession. However, this may be followed by a consecutive strabismus, e.g., exotropia and convergence deficiency after medial rectus tenotomy.

- Sometimes there is fibrosis of the vertical recti, i.e., the superior rectus and the inferior rectus. However, this is mostly discovered after the inferior rectus surgery, even after the tying of adjustable sutures if they have been used. There is postoperative hypertropia (overcorrection). It is important to rule out overcorrection due to excessive weakening of the inferior rectus. CT scan, which shows the affected muscles, can do this.

Complications

1. Postoperative severe inflammation
2. Lower lid retraction
3. Late slippage of the tendon of inferior rectus
4. A pattern exotropia after large bilateral recessions of inferior recti
5. Undercorrections and overcorrections

1. *Postoperative severe inflammation* is more liable to occur if the surgery is carried out before the signs of inflammation due to thyroid ophthalmopathy have subsided completely[39]. The signs reported in a case where bilateral surgery was carried out with mild signs of inflammation in one eye and none in the other eye, were as follows:

   (a) Reduced visual acuity
   (b) Severe conjunctival congestion, chemosis and echymoses,
   (c) Corneal opacification, vascularization and thinning (almost melting)
   (d) Marked proptosis
   (e) Gross overcorrection leading to large hypertropia
   (f) Gross limitation of downgaze: the eye could not be moved beyond midline

   As corneal perforation seemed imminent these problems were treated with moisture chamber, hourly instillation of lubricants and systemic administration of corticosteroids.

2. *Lower lid retraction* may occur after inferior rectus recession of more than 3 mm despite a thorough dissection, separation of all check ligaments and severance of attachments of the muscle to the lower lid retractors. It is more liable to occur because the amount of recession in these cases is really large.
   To treat a lower lid retraction lateral tarsorrhaphy[41] or stored (eye bank) sclera is used as a spacer at the lower end of the tarsal plate[40, 41].

3. *Late slippage of the inferior rectus muscle* from its recessed position has been reported after adjustable suture surgery using absorbable sutures. The eye shows progressively increasing hypertropia in the weeks following the recession. To prevent it either adjustable suture technique is not used or nonabsorbable suture material is used[42].

4. *A pattern exotropia* (XT)[41] has been reported after bilateral inferior rectus recession. The inferior rectus, besides being a depressor, is an adductor also and when it is recessed on

both sides the adduction becomes weak causing an A pattern XT. The treatment consists of a simple medial displacement or transposition of the insertions of both inferior recti by about ½tendon breadth. Alternatively, if the horizontal recti are to be operated on, the medial recti can be transposed upwards or lateral recti downwards.

5. *Undercorrections and overcorrections* are not really complications but they do cause postoperative problems to be dealt with. These problems have to be corrected if there is diplopia in primary position and downgaze. The underacting muscles may have to be advanced (if not already tight) and the overacting ones recessed.

Prognosis

As regards as the relief of symptoms is concerned the results of surgery are fairly gratifying, both for the patient and the surgeon[35], provided the disease has first been adequately treated medically and condition stabilized. However, the picture is liable to change and repeated surgery may be required in future even though the condition has been satisfactorily treated by one or more operations.

Special points

- ✓ The patient must be warned about the nature of the condition and the possibility of recurrences and repeated surgery.
- ✓ Forced duction test is a useful tool to assess the degree of fibrosis. It should be done preoperatively, intraoperatively (both before and immediately after the operation) and postoperatively if indicated.
- ✓ Before deciding on surgery one must make sure that the endocrine balance has been restored, the inflammation has subsided and the angle of deviation and ocular motility are stable and that there is no further change in signs and symptoms for at least 6 months. If this precaution is not taken the treatment may fail or give rise to unforeseen complications.
- ✓ The inferior rectus may be so tight and fibrosed that during dissection it is difficult to get a hook under its tendon. Utmost care should be exercised to avoid a perforation of the sclera.
- ✓ The surgeon should be content with achieving alignment in primary position and depression (walking, going up or down the stairs, reading, writing or working position). One should not try to restore full motility in all the directions, as it is not possible without causing complications like restricted motility in other directions.

Summary

1. Noorden[37] has aptly summed up the main points in the definition of Graves' ophthalmopathy as " It is a part of a multiorgan autoimmune inflammatory disease that may cause periorbital edema, enlargement (and later fibrosis) of the EOM, proptosis, lid retraction, optic neuropathy and (sometimes) secondary rise of intraocular pressure".

2. A case with the following features should be diagnosed as thyroid ophthalmopathy unless proved otherwise[36]:

   - An isolated acquired hypotropia with
   - Positive forced duction test on the inferior rectus of the affected eye
   - The eye can not be elevated from its hypotropic position

   Note: The above mentioned rule should be observed even if the tests for thyroid dysfunction are negative.

3. Symptoms are many and varied. They present a wide spectrum with various degrees and combinations of signs and symptoms. There is inflammation, swelling and enlargement of affected ECM followed by fibrosis and contracture.

4. The most common muscles to be affected by fibrosis (after swelling, inflammation and enlargement) are inferior rectus, medial rectus, superior rectus and lateral rectus in that order.

5. Status of thyroid may be anything from hyperthyroid, euthyroid to even hypothyroid.

6. The basic nature of the condition is not well understood but it seems to be an autoimmune disease.

7. CT scan and MRI show up the enlarged affected extraocular muscles.

8. Management mainly consists of controlling the basic thyroid problem, taking care of exposure keratitis and restoring binocular single vision at least in primary position and depression, the two directions most used in daily life. Prisms and/or surgery on the fibrosed EOMs to align the visual axes can control the diplopia.

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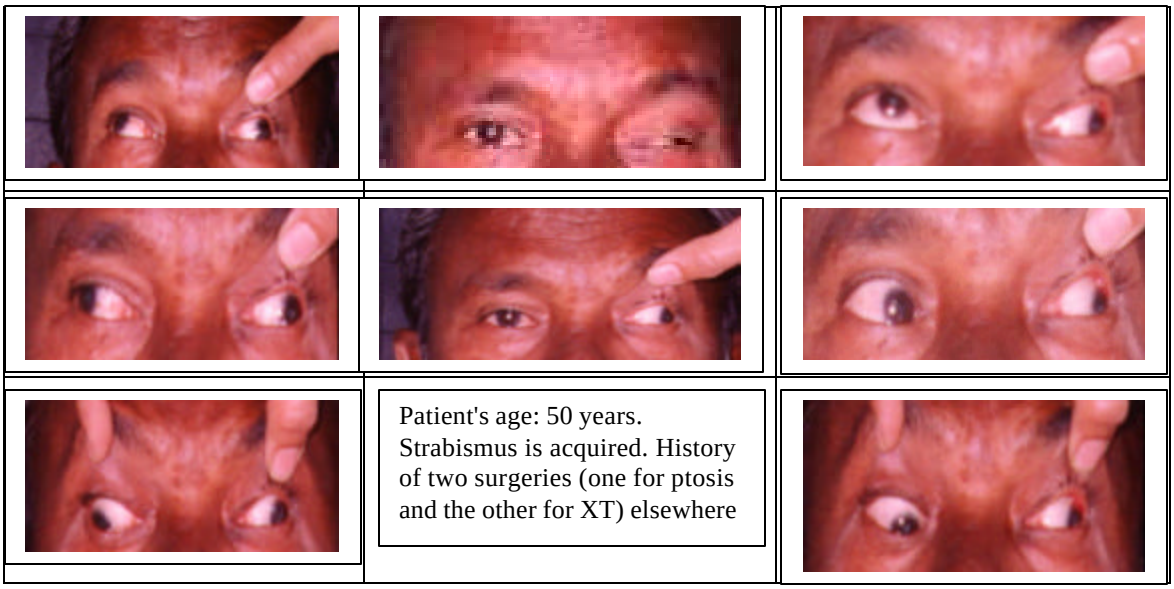
SPOT THE DIAGNOSIS (4)

Note: Please have a good look at the composite photographs given below and write to us your diagnosis, your name and JIM number.

Ocular motility chart of a patient:



BOOK SELECTION

Lyle and Jackson's Practical Orthoptics in the Treatment of squint (and other Anomalies of Binocular Vision), Fifth edition (revised) published in London in 1979

Authors: T. Keith Lyle and Kenneth C. Wybar

Indian Publishers: Jaypee Brothers, P.B. No. 7193, New Delhi, India
Plus points: The best book on step to step investigations and Treatment of cases of squint and other disorders of binocular vision. Strabismologists desirous of becoming adept in the subject of strabismology must read it, remember it and follow it. It is extremely easy to understand.
Minus points: This edition is the last to be revised (in1979) and therefore modern methods involving the use of new gadgets and computer are not mentioned in it. However, even now I have not seen any center using them despite the fact that I have visited several centers renowned for their ocular motility clinics.
Price:
Indian Rupees 700
Rating: ****

NOTE: *I hope those of you who are really serious about learning and practicing strabismology in the real sense will buy this book, read it and use it in your everyday practice. The Indian edition is so affordable.*

EYE-RHYME
(Dr. S.A.Patney)

CARTOON-EYE
(Dr. S.A.Patney)

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Please turn to page 28 for Cartoon-Eye

HISTORY-A FEW FIRSTS IN STRABISMOLOGY

Worldwide

(a) Chevalier John Taylor (1703-1772) who performed a successful operation on a boy did first surgery for squint. He was half surgeon and half quack. He must have realized that squint was a disturbance of muscular equilibrium and conceived the idea that dividing a muscle or a nerve can cure it. However, he earned a bad name through many failures, one of them being on the eyes of Bach, the famous musician.
(b) In 1743 George L. Buffon recognized amblyopia and recommended occlusion for it.
(c) In 1839 Johann F. Dieffenbach performed the first successful tenotomy.
(d) du Bois-Reymond (1952) and Mackenzie (1954) were the first to suggest orthoptic treatment but it was elaborated and established as a technique by Javal (1864-96).
(e) Prof. A. Bangerter of Switzerland and Prof. C. W. Cuppers of Germany first advocated pleoptic treatment for amblyopia. However, their approach was different.

(Continued overleaf on page 26)

CME (Member of the year) Quiz no.4, 2001:

(NOTE: Please encircle the appropriate number or letter, fill in the blanks or describe as required. Then cut along the black line and return by mail. Turn over for the update-questionnaire)

1. *Please give short definitions (in a few words) of the following conditions*:
   (a) Sursumvergence
   (b) Sensory heterotropia
   (c) Angle Kappa:
   (d) Vision deprivation amblyopia
   (e) X-exotropia

2. *Do the pair of names given below convey the same meaning? Encircle the correct answer*:
   (A) Sursumvergence / elevation of an eye: Yes / No
   (B) Convergence / Adduction: Yes / No
   (C) Principal visual direction / Fixation axis: Yes / No
   (D) SMP / Single macular perception: Yes / No

3. *Are the following statements true? Encircle the correct answer (yes/no)*:
(a) Stereopsis is present in infants aged 0-2 weeks: Yes / No
(b) Acquired hypotropia +absent elevation +positive FDT on inferior rectus =Thyroid Ophthalmopathy: Yes / No
(c) IT: Facial recognition is a better technique than conventional recognition techniques: Yes / No
(d) The bellies of extraocular muscles are the primary site of thyroid ophthalmopathy: Yes / No
(e) Corticosteroids have a place in treatment of thyroid ophthalmopathy: Yes / No

4 *The main findings on pathological examination in thyroid oculopathy are*:
(1)
(2)
(3)
(4)
(5)

5. *The main complications after surgery for thyroid oculo-orbitopathy are:*
(1)
(2)
(3)
(4)
(5)

HISTORY-A FEW FIRSTS IN STRABISMOLOGY

In **India**

(Continued from previous page)

(A) Dr.H.L.Patney started running an orthoptic clinic with the help of a compounder at Sitapur Eye Hospital whom he taught orthoptic exercises, in early nineteen fifties.
(B) Dr. M.K. Mehra and Dr. Sudha Awasthi (now Patney) started the first Orthoptic clinic at K.G. Medical College, Lucknow in 1957. She ran it for 2 ½years.
(C) Dr. H.L. Patney started the first Orthoptic Department and the first Orthoptic School of India at Eye hospital, Sitapur, U.P. in 1959 and Dr. Awasthi (now Patney) Pleoptic dept. in 1961.
(D) Dr.Sudha Awasthi and Dr. J.M. Pahwa started the first Indian Orthoptic Journal in 1964.
(E) Dr. H.L.Patney and Dr. Sudha Awasthi started the All India Strabismological Society in 1967 and held India's first workshop on strabismus in 1967.

Please answer the questions or encircle the correct answers, cut along the black line and send by return mail)

Update questionnaire

1. I have been receiving InteRyc regularly, sent 2 monthly in 1998 (6 volumes) and 3 monthly (4 volumes) since 1999: Yes / No
2. My address remains unchanged: Yes / No
3. My email address: My URL:
4. My phone No.: My FAX No.:
5. My pager No.: My mobile phone No
6. I am enclosing herewith a demand draft for Rs100 / *cheque* for Rs118 (year 2001 subscription) / DD for Rs200 or *cheque* for Rs218 (for the years 2000+2001) / DD for Rs 300 or *cheque* for Rs318 for 1999+2000+2001.
7. I would like to resign from the membership of AISS and JKAIS: Yes / No
   If answer is yes, please write the reason if you don't mind. It may help to improve our system.
8. My membership No. is: JIM-
9. My name and present address are:

For fellowship candidates only:

10. I have paid for …….. installments.
11. I have received ……..Installments.
12. I have sent back solved question papers of …… installments.
13. I have the following problems with the course (please attach a sheet if required):

14. I have paid membership subscription for the years 98 / 99 / 00 / 01 / all (97-01)
15. I would like to come for the hands on experience in the month of …… 2002.
    (*Please inform at least 3-4 months in advance for arrangements to be made*)

RATE YOUR PERFORMANCE YOURSELF

Answers to the CME (Member of the year) Quiz no.3, 2001:

(NOTE: this quiz was sent in the InteRyc volume 3, 2001)

1. *Please give short definitions (in a few words) of the following conditions*:

   (1) Sursumvergence
   (2) Sensory heterotropia
   (3) Angle Kappa:
   (4) Vision deprivation amblyopia
   (5) X-exotropia

2. *Do the pair of names given below convey the same meaning? Encircle the correct answer*:

   (a) Sursumvergence / elevation of an eye: No
   (b) Convergence / Adduction: No
   (c) Principal visual direction / Fixation axis: Yes
   (d) SMP / Single macular perception: No

3. *Are the following statements true? Encircle the correct answer (yes/no*):

1) Stereopsis is present in infants aged 0-2 weeks: Yes / No
2) Acquired hypotropia +absent elevation +positive FDT on inferior rectus =Thyroid Ophthalmopathy: Yes / No
3) IT: Facial recognition is a better technique than conventional recognition techniques: Yes / No
4) The bellies of extraocular muscles are the primary site of thyroid ophthalmopathy: Yes / No
5) Corticosteroids have a place in treatment of thyroid ophthalmopathy: Yes / No

4. *The main findings on pathological examination in thyroid oculopathy ar*e:

1) Secretion of mucopolysaccharide and Production of collagen
2) Striated cells of the extraocular muscles (EOM) degenerate with the collection of collagen
3) Proliferation of fibroblasts
4) Fibrosis of EOM
5) Swollen and fibrosed muscles make the main mass of the increased soft tissue contents of the orbit

5. *The main complications after surgery for thyroid oculo-orbitopathy are:*

   (1) Postoperative severe inflammation
   (2) Lower lid retraction
   (3) Late slippage of the tendon of inferior rectus
   (4) A pattern exotropia after large bilateral recessions of inferior recti
   (5) Undercorrections and overcorrections

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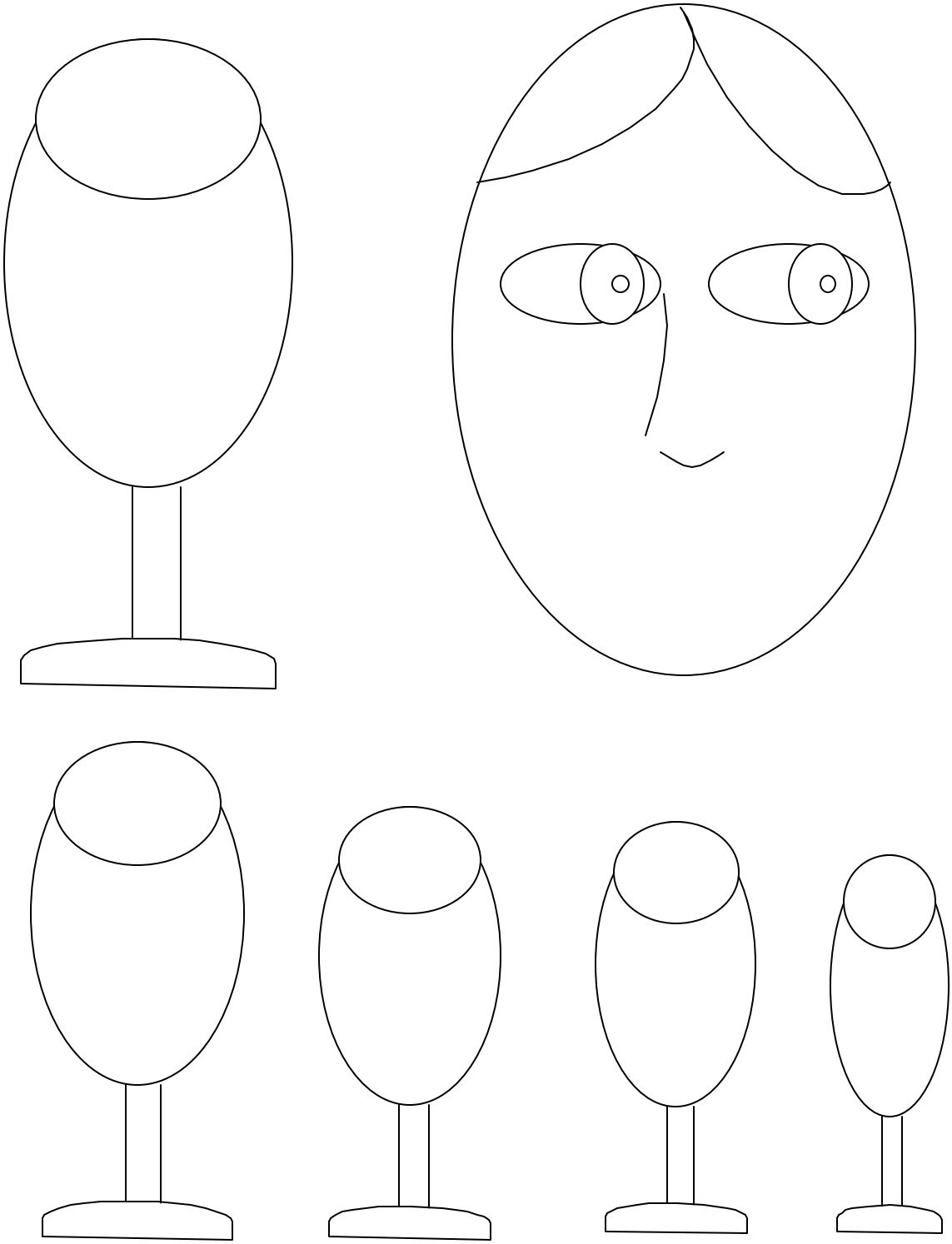
CARTOON-EYE

(Dr. S.A.Patney)



In fond memory

(1) **Mr. Thomas Keith Lyle**, M.D. Chir., F.R.C.S., F.R.C.P., London, U.K. was, in nineteen fifties, sixties and seventies, a legend in the field of strabismology and related subjects. When I trained under him at the famous Moorfields Eye hospital in 1960-61 he was a consultant eye surgeon and also the director of the Orthoptic and Squint department. The department had become famous because of his expertise and dedication. In addition to the above posts he also held the prestigious post of the Dean of the famous (in those times) Institute of Ophthalmology, London. In those days most doctors used to go to UK for further studies and not to USA as it is now. He inspired umpteen numbers of ophthalmologists to take up the noble mission of preventing amblyopia.

When the International Strabismological Association was started in 1966 at Giessen, Germany, he was its founding president and Dr. von Noorden of USA the founding secretary. He was a perfect gentleman, a typical Englishman, a reserved, simple and unassuming person, a wonderful human being and a missionary to the cause of prevention of

amblyopia in children. His teaching, working style and surgery were deceptively simple. Good solid knowledge crept up on one and infiltrated the subconscious before one became aware of it.
When we informed him about starting the Institute in 1983, he immediately sent his blessings (good wishes) and again extolled me to impress upon the ophthalmologists and the orthoptists to be thorough in their examination of children and to campaign for the early detection and treatment of amblyopia. He advocated great patience and perseverance while investigating and treating a case of strabismus/amblyopia. He told me there was a great need to train more and more ophthalmologists in this subject.

(2) **Dr. Mrs. Kanti Devi Awasthi** was a martyr to the cause of country's freedom from English rule and oppression. She was only 28 yr. old when she died for the country in 1944. She was totally dedicated to the cause and was her husband's better half in every sense of the word. For her the country came first, even before her children.

(3) **Pandit Jaidayal Awasthi** started his fight for freedom in 1921. His wife joined him in 1930. The British Government imprisoned them repeatedly. Their last imprisonment was in 1942 and they were released in late 1943, as his wife was critically ill. She and their youngest daughter died in 1944. He sacrificed not only his huge business but also his wife and the youngest daughter for the cause of country's freedom. Later he refused the rewards of service to the country and resigned from congress in the fifties. He even refused a congress ticket for taking part in the election for membership of parliament.

(4) **Dr. H.L. Patney** was an eye surgeon par excellence. He was equally good in all specialties of ophthalmology. He did his premedical, undergraduate and postgraduate medical training in UK. He did his house job (residentship) and registrarship in the Royal Eye and Ear Infirmary at Cardiff, Wales, UK. During those years he was the personal assistant of legendary Sir Tudor Thomas, a pioneer in keratoplasty. He assisted at his private clinic, operating on patients for keratoplasty, retinal detachment surgery, and plastic surgery. He was also fitting contact lenses and doing Orthoptics in 1940s! After staying there for 14 years he came back to India to serve his country and to do that he joined Eye Hospital, Sitapur in 1946. That institution was, in the fifties, sixties and seventies the premiere ophthalmic institution of India. When he joined it the hospital was functioning like a camp hospital doing a large amount of cataract, glaucoma, entropion and sac surgery. He updated its plans.

An interesting incident in 1942 changed the destiny of Eye Hospital, Sitapur. His highness the Governor of U.P., an Englishman, was travelling on the Lucknow-Delhi Road when he saw a large number of people with their eyes bandaged, sleeping on the roadside in Khairabad. The small township is about 5 miles from Sitapur. He asked his P.A. to investigate. He was informed that the place was a Government dispensary where the medical officer was doing a large number of cataract operations. He met the M.O., Dr. M.P. Mehrey and promised land for a hospital at Sitapur. The land was given. The hospital was built and it flourished. Top Indian industrialists and the central (and state) cabinet ministers got treatment from there and helped in making it the biggest and the best (in those days) eye hospital in India. Rest is history.

Alas! The great institution is not the same now but there was a time when people considered treatment at Sitapur Eye Hospital the ultimate help for eyes in India. And to be fair, I have yet to see more comprehensive facilities anywhere else. Its permanent bed strength was for 800 general ward patients (which used to double in winter with extra beds/mattresses put on the floor to accommodate the extra number of patients). When I was there in sixties and early seventies there were 200 private wards, 5 guest-houses for VIPs/rich patients, a so-called ulcer ward with beds for 150-200 blind, hopeless and infective cases. This ward was our practical research ground as we experimented with several new techniques on willing patients there. In addition, there were an Ocular Pathology department, a first class Orthoptic/Squint department, Orthoptic School, Optometry School, a library, the Blind School, an Instrument factory, the upgraded Postgraduate Regional Institute of Ophthalmology, a Carl Zeiss operating microscope, an Electro-retinogram machine, and for several years the first and only functioning photocoagulator in India. The doctors serving there were often sent abroad to learn the latest in various sub-specialties of ophthalmology. Patients were referred from all over India and some neighboring countries.

Please turn over to page 28 for Cartoon-Eye (stuck on page 24)

Please refer to the poem (couplet) under Eye-Rhyme on page 24 (stuck on page 28)

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