POSTER 1

ENHANCING BINOCULAR VISION WITH ANISOMETROPIA AMBLYOPIA

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Patient description: A 9-year-old child presented with diminished vision in both eyes for the past 6 months. **Case history:** The patient had a normal general and family medical history with no associated history of headache, asthenopia, squinting of the eye or diplopia. There was no history of using glasses, ocular surgery, laser treatment, patching, or vision therapy. Birth history was normal. **Physical examination results:** Right eye's initial 2/60 unaided visual acuity, corrected to 6/18 with severe myopia -12.00/-2.00X180; left eye was 4/60 unaided visual acuity and corrected to 6/18 with moderate myopia -6.00/-2.00x170, which remained unchanged after cycloplegic refraction. On conducting external examination, no abnormalities were detected. The slit lamp examination also revealed normal findings, with no signs of pathology. Additionally, the fundus examination showed no irregularities, indicating a healthy retina and optic nerve. Overall, all aspects of the ocular examination were found to be normal.The patient was advised to wear glass and kept under observation. After the 6-month follow-up visit, the BCVA had improved to 6/12p in the right eye and 6/6p in the left eye. The patient was then advised to patch left eye for 2 hours daily. She lost regular follow-up, but returned after 2 years. Further examination was done, the subjective refraction was same as before but the BCVA had reduced to 6/36 in the right eye and remained 6/6 in the left eye. **Results of pathological tests and other investigations:** Axial length was found to be 27.12 mm for the right eye and 25.21 mm for the left eye. The Pentacam report was found to be normal, with K1 measured at 40D, K2 at 41.3D of right eye, K1 at 40.3D, and K2 at 41.1D of left eye. **Treatment plan:** Prescribed glasses and patching for 4 hours daily during near tasks, with ongoing observation. No further improvement was found. So, office-based therapy (active therapy) was recommended. After improvement of visual acuity, the patient was referred to a contact lens clinic to address the aniseikonia problem and the difficulties faced with spectacles due to high refractive error differences between both eyes. **Expected outcome:** Our expectation was to improve the BCVA of the right eye through patching for 4 hours daily during near tasks over the course of 2 to 3 follow-up visits. There was no improvement, office-based therapy might enhance the BCVA of the right eye. the patient might achieve binocular vision and was anticipated to find comfort with contact lenses. **Actual outcome:** The BCVA of the right eye improved to 6/9 after completing 15 sessions of 45 minutes of office-based vision therapy daily. After achieving this target, a trial with soft toric contact lenses was attempted, but due to apical rotation and lid

tightness, the soft toric lenses did not fit properly. Instead, rigid gas permeable (RGP) contact lenses were found to be the best fit. The patient reported feeling comfortable with the lens.

POSTER 2

PLUS LENS THERAPY IN INTERMITTENT ESOTROPIA

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Patient description: A child of 5 years old was presented at the paediatric department with the complains of headache and eyeache while focusing on near object since past 1-2 weeks. There was no history of using spectacles before, nor history of trauma or surgery to the eye. There was no history of any chronic illness. Medical history also suggested not any significant historyIFamily History: No known history of strabismus or other ocular conditions. **Physical examination results:** Visual Acuity: 6/6 in both eyes. Dry refraction: Emmetropia (no significant refractive error). Extraocular movements were intact, no facial asymmetry. Anterior segment examination: Within normal limits. Fundoscopy: Normal findings. **Results of pathological tests and other investigations:** Hirchberg Test: 0 degree. Worthford-dot Test: Binocular single vision was present in both distance and near. Streopsis: 50 sec of arc (Randot Stereo Test). Cover test: Intermittent Esotropia of approximately 4 prism diopter base out and 18 prism diopter base out for distance and near respectively. Based on the clinical examination, the patient was diagnosed witth intermittent esotropia. **Treatment plan:** Cycloplegic refraction was done which confirmed no refractive error and full mydriatic correction was prescribed for therapy purpose in order to reduce the accomodative effort and potentially reduced the frequency of esotropia. Follow-Up after one month was advised to monitor the control of esotropia and need for further interventation. **Expected outcome:** With appropriate use of spectacle and timely follow-up, which may result in better control of eye alignment and maintaining good binocular vision. **Actual outcome:** Instead of 1 month, the patient came after 6 months for follow-up. On examination the cover test was resulted orthophoria for both distance and near and normal streopsis with (Randot Streo Test).

POSTER 3

OPTOMETRIC VISION THERAPY IN THE MANAGEMENT OF AMBLYOPIA ASSOCIATED WITH DRS-TYPE II: A CASE REPORT

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Patient description: An 8-year-old male, RK, visited our clinic with the complaint of outward deviation of the left eye, headache and asthenopic symptoms. **Case history:** RK's parents noted that he was reluctant to perform any near activities, including reading and writing, as he soon got headaches and eyestrain. An abnormal head tilt was also noted by the parents. There was no history of any ocular or birth trauma or family history of strabismus. **Physical examination results:** The patient seemed otherwise normal, except for the occasional head tilt towards the right. The visual acuities were 6/6 OD and 6/12 OS, with no pinhole improvement, suggestive of presence of amblyopia. While taking the distance binocular visual acuity, we noted a strong right eye fixation preference, with a face turn to the right. Dry retinoscopy revealed low myopia in both eyes. The anterior and posterior segments examination were normal, except for a grade I RAPD in OS. The colour vision and contrast sensitivity, measured with Ishihara pseusoisochromatic test plates and the Pelli-Robson contrast sensitivity chart,respectively were found to be normal. Then cyclopentolate was administered, and wet retinoscopy was performed,which revealed plano OD and -0.75 DS OS. On the second visit, post-mydriatic treatment revealed plano OD with 6/6 and -0.50 DS OS with 6/12. **Results of pathological tests and other investigations:** A comprehensive binocular vision assessment was perfromed. Extraocular muscle version testing showed full range of motion of the right eye but revealed an abduction deficit and globe retraction with narrowing of the palpebral fissure on adduction of the left eye. Based on the binocular vision assessment, the patient was diagnosed with DRS-Type II and amblyopia. **Treatment plan:** The management plan included the primary position, elimination of the abnormal head posture and amblyopia, and improvement of foveral binocular function. Office-based vision therapy was initiated. **Expected outcome:** The goal was to improve visual acuity with binocular functions and overall visual performance by increasing both motor and sensory fusion in primary gaze. **Actual outcome:** The patient underwent 35 sessions of in office vision therapy over a period of 3 months. At the end of therapy, RK visual acuity improved to 6/6 , and ocular motility with binocular vision skills were markedly improved.

POSTER 4

IS IT ESSENTIAL TO REEVALUATE AND MODIFY STANDARD TREATMENT STRATEGIES DURING VISION THERAPY: A CASE REPORT?

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Backgaround: Clinically, it is often difficult to treat esotropia following standard guidelines of vision therapy as compared to exotropia, especially at less equipped clinical settings. It has been found that similar protocols of vision therapy in every case may worsen the symptoms and can cause drop out of the patients forcing them to live at their existing conditions. The reanalysis of patient's status following vision therapy and modification of standard treatment regimen can achieve satisfactory results. **Patient description:** A 20-year-old lady presented with a chief complaint of eye ache, photophobia, headache and occasional diplopia especially at daylight for one month. She had a history of diminution of vision on left eye for 6 years and no refractive correction was prescribed. She had undergone vision therapy and found no significant improvement, rather worsening the symptoms i.e. eyestrain and headache with frequent inward deviation of eye. Thus, she discontinued the therapy which was advised to do. Six years later she visited our hospital with the same symptomatic complaints. On comprehensive eye examination, she was found to have reduced vision on left eye despite refractive correction. Her cover test revealed exophoria at distance and esophoria to esotropia on the left eye at near with high AC/A ratio. She was diagnosed with intermittent esotropia convergence excess type with left eye micro suppression. Best refractive correction was prescribed and in office vision therapy was scheduled. At the end of 10 sessions of therapy, condition worsened both symptomatically and clinically, and had frequent inward deviation of eye associated with severe eye strain, headache and diplopia. The condition was reassessed comprehensively. As there was change in refractive correction, new prescription was made and modified with added plus lens (progressive addition lens) to control convergence excess and advised for another session of vision therapy. Based on patient's binocular vision status, vision therapy protocol was rescheduled from time to time. Later, as the condition was improving and the patient was satisfied with the therapeutic session. She was advised to continue therapy at home as per the guidelines. Finally, the condition was improved and the patient was happy with good vision on both eyes with minimal refractive correction.Conclusion:This case report demonstrates that similar vision therapy protocols in every case may sometimes worsen the existing conditions of patients. Therefore, it is mandatory to reevaluate the condition during vision therapy sessions and modify the treatment regimen as per the requirement to achieve satisfactory results.

Physical examination results: Within Normal Limit. **Results of pathological tests and other investigations:** Within Normal Limit. **Treatment plan:** In office vision therapy. **Expected outcome:** Improvement of visual acuity and achieve normal binocular vision state. **Actual outcome:** BSV achieved with improvement in visual acuity with minimal refractive correction.

POSTER 5

MANAGEMENT OF INTERMITTENT EXOTROPIA OF DIVERGENCE EXCESS TYPE: A CASE REPORT

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Patient description: A 15-year-old, school going female student visited our vision therapy clinic with a complaint of deviation of eye while looking in the mirror. **Case history:** No systemic and previous ocular illness. Birth history was normal. No family history of any deviation. The patient's visual acuity was found to be 6/6 in both eyes. On slit lamp examination, the anterior chamber was VH4, pupil round, regular, and reactive with no abnormalities. Iris was also normal, lens clear and cup disc ratio was 0.3:1. Subjective as well as objective refraction were plano in both the eyes. **Physical examination results:** Facial symmetry: Symmetrical on both side. External face and head posture : Normal. Extraocular motility was full, free, and painless. HBT(Hirschberg corneal reflex test) was ortho (0 degree) for near. **Results of pathological tests and other investigations:** The distance cover test revealed IXT with moderate control while the near cover test also revealed IXT with moderate control. On the prism bar cover test, it was 35 PD at distance and 25 PD at near. The near point of convergence was found to be 5cm. The near point of accommodation was measured using RAF ruler and it was found 6cm, 5cm, and 6cm for right eye, left eye, and both eyes respectively. Prism vergence (break and recovery) at distance was 10/8 base out and 1/x base in while at near it was 25/20 base out and 35/30 base in. The AC/A ratio was found to be 9:1 heterophoria method. The patient was diagnosed with IXT (Divergence excess type). **Treatment plan:** The patient was given a combined therapy for IXT: Orthoptics exercise (Brock string) and overminus lenses (-1.50 dsph) and the patient was asked for a 1.5-month follow-up. **Expected outcome:** The expected outcome was a deviation to be reduced. **Actual outcome:** Follow-up visit 1 (2022/11/06), after almost 1.5 years, the patient came for a follow up complaining blurring of vision when eye deviates. HBT revealed orthophoria at near. Without over minus lenses, the distance cover test revealed IXT with poor control and the near cover test also revealed IXT with poor control. On PBCT, it was 45 PD at distance and 30 PD at near. As the patient had discontinued the therapy, IXT was increased both at distance and near. The patient was asked to continue the same therapy. Follow-up visit 2 (2022/12/21), the patient came for a regular follow-up after 1.5 months, IXT was found to be improving. Without minus lenses, PBCT was found to be 45 PD at distance and 25 PD at near. With minus lenses, it was 25 PD at distance and 4 PD at near. Again, the patient was asked to continue the same therapy for about 2.5 months follow-up.Follow-up visit 3 (2024/07/02)After 1.5 years, the patient patient came for a follow-up. With minus lenses, IXT was found to be 25 PD at distance and 3 PD at near.

POSTER 6

DUANE'S RETRACTION SYNDROME TYPE III:A CASE REPORT

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Patient description: Age: 29-year-old Indian housewife visited the Biratnagar Eye Hospital on 2024-07-03. **Case history:** Her chief complaint was blurring of vision at distance, headache, and difficulty in rotating the eye on the right side, diplopia at near. History of present illness: Patient was diagnosed with Duane's Retraction Syndrome(DRS) Type III. History of past illness: There was normal birth history, no history of systemic illness, no family history of any ocular anomalies, no history of consanguinity marriage among her parents and no any previous history of ocular surgery or trauma that might have created a restrictive syndrome. **Physical examination results:** External examination:Facial symmetry: Symmetrical on both sides. External face: Normal. Head posture: Abnormal head posture towards right side. Ocular postion: Normal. Functional examination: Distance visual acuity was assessed using Snellen's chart; the UCVA for right eye was 6/18 and 6/9 for left eye. Near visual acuity was assessed using Times Roman Chart; the UCVA was N12 for RE and N6 for LE at 35cm. o BCVA in distance for RE was -0.75Ds = 6/9 and for LE was plano±/-0.50DCyl*90 = 6/6 while BCVA in near for RE was N6 and for LE was also N6 at 35cm. On slit lamp examination both anterior and posterior were found to be within normal limits. Ocular motility examination revealed the patient had limited dextroabduction, limited dextroadduction, upshoot, globe retraction, and narrowing of the palpebral fissure aperture on adduction of the right eye consistent with the diagnosis of DRS TypeIII. Hirschberg Test showed orthophoria on both Eyes. Stereopsis was found to be 400 sec of arc which was assessed using Randot Test. On Worth Four Dot Test, BSV was present at distance while diplopia was present at near. Prism bar cover test revealed 2PD right exotropic with 5PD right hypertropic for distance while there was 12PD exophoria with 5PD hyperphoria for near. On head turn, deviation was found to be approximately 15 degree. Color vision was found to be 23/25 for RE and 25/25 for LE on Ishihara Chart. **Results of pathological tests and other investigations:** Cycloplegic refraction was done with the finding as:OD: -0.750Ds = 6/9, OS: plano±/-0.50DCyl*90 = 6/6. OCT SCAN test and Forced Duction Test was advised in next follow up. **Treatment plan:** Refractive error correction, recession of the medial and lateral rectus muscles, Y split of the lateral rectus and diplopia elimination using prism and monocular patching may be advised. **Expected outcome:** Elimination of diplopia or improvement of the

unacceptable head turn, elimination or reduction of significant misalignment of the eyes, reduction of severe retraction and the improvement of upshoots. **Actual outcome:** Visual outcome with spectacle was 6/9 on RE and 6/6 on LE. Patient was advised for surgery on next follow up because she was not ready for surgery during present time of elimination of diplopia.

POSTER 7

CHERRY RED SPOT IN AN INFANT: A CASE REPORT

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Patient description: A 11-month-old child presented to the paediatric ophthalmology department of Nepal Eye Hospital with the concern about visual poor visual tracking and global developmental delay. **Case history:** Baby Y was presented with global developmental delay, laryngomalicia, a history of moderate to severe hearing issue, mild coarse facies, organomegaly, distended abdomen and poor visual tracking. **Physical examination results:** On physical examination in paediatric ophthalmology department, he had poor visual tracking and anterior segment was normal. On posterior segment examination he had bilateral cherry red spot on macula, temporal disc pallor with cup disc ratio of 0.6:1 in both eyes. **Results of pathological tests and other investigations:** 1) On flash VEP: The waveform was extinguished in both eyes and wave amplitude showed reduced and delayed implicit time in both eyes. 2) On MRI of brain: It was suggestive of hypomyelination. 3) On EEG: The report was normal. 4) On mitochondrial genome sequencing: The result was found to be negative. 5) On whole exome sequencing test: After phenotype and genotype co-relation the impression was likely a compound heterozygous variant in the GLB1 gene had been identified. The overall investigation was suggestive of GM1 gangliosidosis. **Treatment plan:** Genetic counselling was recommended. The patient was referred to general paediatric department. Periodic follow up in paediatric ophthalmology department was advised to the patient. **Expected outcome:** Our expectation was to reduce the progression of the disease through enzyme enhancement or replacement therapy. **Actual outcome:** We will discover the actual outcome in next follow up of patient (after 1 month).

POSTER 8

POSTERIOR MICRO-OPHTHALMUS, ITS CLINICAL AND IMAGING FINDINGS AND MANAGEMENTS PLAN: A CASE REPORT.

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Patient description: We described a case of 6 years male patient who was referred from a school screening camp to the paediatric department of our hospital. Patient complained of blurring of vision for distance and near. Patient did not have previous history of using glasses nor any other optical correction. **Physical examination results:** On examination, his uniaded visual acuity (UAVA) was CF at 3 meter monocularly in both eyes. On dry refraction , a refractive error of high hypermetropia of +15.00Ds/-1.50Dc*20 in right eye (RE) and +16.00DS/-1.25Dc*170 in left eye (LE) with best corrective visual acuity (BCVA) of 6/24 and 6/24p in right eye and left eye respectively. Slit lamp examination showed normal anterior segment findings with elevated papillomacular bundles and hypermetropic disc and was confirmed by Ocular Co-horence Tomography, fundus photography and ultrasonography. Optical biometry showed axial length of 15.50 mm in RE and 15.30 mm in LE, average corneal curvature of +50.90D in RE and +50.87D in LE, anterior chamber depth of 2.73 mm in RE and 2.70 mm in LE , lens thickness of 4.10 mm in RE and 4.12 mm in LE and vitreous chamber depth of 8.67 mm in RE and 8.48 mm in LE. All the parameters were confirmed by Anterion and Pentacam. Color vision and contrast sensitivity was within normal limit. Patient was referred for orthoptic evaluation. Orthoptic evaluation shows patients having Prism Bar Cover Test (PBCT) of 35 Base Out (BO) and 30 Base Out (BO) without refractive correction for near and distance respectively and PBCT of 10 BO and 8 BO with refractive correction for near and distance respectively with poor stereopsis. Patient was diagnosed as high hypermetropia with posterior microphthalmus, associated with refractive esotropia and isometropic amblyopia. Cycloplegic refraction showed refractive error of +16.00Ds/-1.50Dc*20 in RE and +17.00Ds/-1.25Dc*170 in LE. **Treatment plan:** Full cycloplegic correction was prescribed with alternate patching therapy of 3 hours/day for the amblyopia treatment. Patient was asked to review after 6 months for the follow up. **Expected outcome:** Best corrected visual acuity (BCVA) of 6/6 and N6 in both eyes with good binocular single vision and stereopsis was expected from the previous treatment plan. **Actual outcome:** On follow up, the best corrected visual acuity was 6/12 and 6/18 on Snellen's distance visual acuity chart in RE

and LE respectively. Patient was advised to continue waering the same glass with active vison therapy for the amblyopia treatmentd.

POSTER 9

THE ROLE OF CYCLOPLEGIC REFRACTION IN DETECTION OF THE ACCOMMODATIVE SPASM AND THE PLAN OF ITS MANAGEMENTS: A CASE REPORT.

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Patient description: a 12-year-old female presents to the hospital with the complain of sudden blurring of distance and near vision and inward deviation of both eyes associated with severe headache and double vision occasionally since last 7 days. She was having a history of excessive near work of 12-14hores/day since last 2-3 weeks. Patient doesn't had previous history of wearing glasses and deviation of eye. Patient's having medical history of cyst in right side ovary, and was under medication for the same. **Physical examination results:** On clinical examination, her unaided vision was 6/60 monocularly in both the eyes with Snellen's distance visual acuity chart and near vision on N24 monocularly in both the eye. Pre-cycloplegic refraction shows high myopia of -11.00DS in right eye (RE) and -11.50DS in left eye (LE) with fluctuating retinoscopy with best corrected visual acuity (BCVA) of 6/9p and 6/9 in RE and LE respectively. Slit lamp examination showed normal anterior segment and posterior segment findings. Color vision and contrast sensitivity was within normal limit. Retina was within normal limit and was confirmed by Ocular Cohorence Tomography (OCT) , fundus photography and ultrasonography. Axial length was 22.16 mm in right eye and 21.98mm in left eye. Average corneal curvature was + 44.44DS in RE and +44.58 DS in LE. Anterior segments depth was 3.15mm in RE and 3.10mm in LE. Lens thickness was 4.04mm in RE and 4.05 mm in LE. All the parameters was measured by optical biometry and was confirmed by Anterion and Pentacam. The patient was referred to the orthoptic department for orthoptic evaluation. Orthoptic evaluation shows eso-deviation of 30 pd Base Out (BO) at distance and of 40 pd Base Out (BO) at near, high amplitude of accommodation, low NRA (+0.75 DS) and high PRA (>-10.00 DS) and lead of accommodation in both eyes. Cycloplegic refraction showed slightly hyperopic shifts (+0.50DS) in both eyes. The case was diagnosed as accommodative spasm with pseudomyopia. Atropine refraction was showed hypermetropia of +1.00Ds in RE and +1.00DS in LE. **Results of pathological tests and other investigations:** Psychiatry and neurology consultation was advised and was normal. **Treatment plan:** Optical correction of plus lens with bifocal glass was prescribed to the patient and eye drops tropicamide 1% BD was prescribed for 15 days on tapering dose of one times/day on first follow-up. Patients was advised to reduce the overloaded near work, stay stress-free and increase outdoor activities and decrease indoors activities. **Expected outcome:** Expected outcome on first follow-up was distance vision of 6/6 in both the eyes with N6 near vision and

othrophoria at distance and near with reduced asthenopia symptoms. **Actual outcome:** On first follow up BCVA was 6/6 in both the eyes with near vision of N8 in both the eyes. Orthoptic evaluation showed flick esophoria at distance and 15 BO at near. Patient was advised to continue same glass and eye drops tropicamide of 1% on tapering dose and was advised to visit after 15 days on 2nd follow up.

POSTER 10

A CASE OF HEADACHE, BLURRING OF NEAR VISION IN YOUNG PATIENT

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Patient description: Age: 18 year old. Gender: female. Nationality: Nepali. Profession: Student. Date of visit: 2023/08/20. **Case history:** Chief complaints of daily bitemporal headache, fatigue and blurred vision when doing near work. No history of using spectacle. Family history showed no relevance. Previous ocular treatment: nil. General health: good (no other medication and allergy). Trauma: nil. Screen time: 5-6 hours/day. **Physical examination results:** UCVA -6/6 (OU), near UCVA- N6 (OU) @30-35 cm. Retinoscopy(OU) -0.50 sph with N6. Anterior and posterior segment were normal. EOM of both eyes were full, free and painless. Cover test showed orthophoria (BE) in distance and near. NPC was 22cm, NPA 14cm(OD) and 14cm(OS). AA was 7.14 D14 cm (OU), accomodative facility - 0cpm (with +/-2.00 D flipper). Vergence facility: 7 cpm. NRA +2.50DS and PRA -1.50DS. MEM +1.25D. Fusional vergence: NBO X/12/10, X/16/14BI, X/10/8, X/18/14. **Results of pathological tests and other investigations:** Patient was diagnosed as convergence insufficiency (CI) and accomodation insufficiency (AI). CI was diagnosed from the following criteria: 1) Receded NPC, 2) Poor vergence facility, 3) Fails in accomodative facility, 4) Reduced positive fusional convergence. AI was diagnosed from these criteria: 1) AA way lesser than expected for patient's age (expected AA for patient age was 10.5D. using Hofstetter formula 15-0.25XAge), 2) Failed +/-2.00 flipper test, 3) Near dyanamic retinoscopy showed lag of accomodation. i.e. high MEM. **Treatment plan:** 1) Orthoptics exercises (Brock string, Hart chart, Albee card, pencil pushups) were taught and was advised to exercise for 30-45 min/day. 2) Good lighting and relaxation time between periods of near work was encouraged. **Expected outcome:** Asthenopic symptoms, fatigue and blurring of vision were expected to be reduced. **Actual outcome:** After 7 months on 2024/03/03, the patient visited our department for follow up. There was good prognosis. The asthenopic symptoms were almost gone. She was doing exercises for 30min/day since 3 months. 1. NPC was reduced to 10cm from 22 cm was a good sign. 2. Even AA was improved from 7.14D to 9.09D. Patient was satisfied with the management plan. Although there was a good prognosis, patient still had some amount of Cl and Al. So, she was encouraged to continue same exercises for few months more and was asked to review after 3 months.

POSTER 11

LOW VISION ASSESSMENT IN A PATIENT WITH MACULAR DYSTROPHY

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Patient description: A 8-year-male student presented with a complaint of difficulty in seeing small objects and letters in distance binocularly since childhood. **Case history:** 15 months ago patient had difficulty of seeing small objects and letters. He had not been using glass or contact lens, had no history of trauma and ocular surgery. Previously low visual assessment had not been done. He can perform his daily living activities himself. **Physical examination results:** There was normal ocular motility, ocular alignment, facial symmetry with no relative afferent pupillary defect. Uncorrected visual acuity of 0.7 logMAR in right eye and 1.24 logMAR in left eye and near vision with N6 at 12 cm in right eye and N36 at 12 cm in left eye with continuous chart. Retinoscopy results were +1.00/-0.75DC*60 degree in right eye and +4.00DS in left eye. Colour vision with Ishihara chart was defective. **Treatment plan:** With 4xHH monocular telescope, 0.3 logMAR in RE. **Expected outcome:** 0.2 logMAR in both eyes. **Actual outcome:** With +1.00DS/-0.75DC*60 degree visual acuity was 0.70 logMAR and N6 at 12 cm in right eye and with +3.50 DS visual acuity was 1.24 logMAR and N18 at 8 cm in left eye.

POSTER 12

LOW VISION REHABILITATION IN A PATIENT WITH MACULAR DYSTROPHY

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Patient description: A 8-year-old male student presented with a complaint of difficulty in seeing small objects and letters in distance and near since childhood. He was studying in class 2 in government school, came with difficulty of seeing small objects and letters at distance and near since childhood as told by his parents. He had not been using glass or contact lens, had no history of trauma and ocular surgery. Previously low visual assessment had not been done. Patient can perform his daily living activities himself. Patient had normal full term delivery, normal birth weight. Patient's family history was unremarkable, no systemic disease. Patient's need was to see board in school. **Physical examination results:** There was normal ocular motility, ocular alignment, facial symmetry with no relative afferent pupillary defect. Uncorrected visual acuity in right eye was 0.7 logMar and the left eye was 1.24 logMar with near vision N6 at 12 cm and N36 at 12 cm with continuous chart respectively. Cyclo retinoscopy was+1.00/-0.75DC*60 in right eye and +4.00DS in left eye. Colour vision with Ishihara chart was defective. Best corrected visual acuity was 0.70 LogMar with +1.00/-0.75DC*60 in right eye and in left eye 1.24 LogMar with +3.50DS. Best corrected vision in near was N6 in right eye and N18 in left eye at 10 cm . 4X hand held monocular telescope was tried in right eye and vision was improved to 0.3 logMar. **Results of pathological tests and other investigations:** Colour vision with Ishihara chart was defective. OCT shows macular dystrophy. **Treatment plan:** Optical and non-optical device was given. Spectacles was given for constant use and 4xHH monocular telescope to see board in school. Large font size book, black bold tip pen, typoscope, illumination, reading stand, tint glass was advised to be used. **Expected outcome:** Visual acuity was improved at near with glass and distance vision was improved at distance. Patient need was fulfilled to see the board. **Actual outcome:** Near vision was improved with glass. With 4X HH monocular telescope visual acuity was improved to 0.3 logMar in right eye. Use of typoscope made it easier and comfortable for him to write .

POSTER 13

STEROID-INDUCED GLAUCOMA

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Patient description: : A 12-year-old male visited the OPD of BEH for the follow-up of VKC after 6 months. **Case history:** Birth history: Norma. Systemic history: Normal. Family history: Normal. Previous ocular history: was diagnosed with VKC 6 months ago. Previous ocular medication:1) Sub-tarsal injection of TRICOT (Triamcinolone acetonide) 0.5ml, 2) E/D Fluorometholone 0.1% with tapering dose, 3) E/D Carboxymethyl cellulose sodium 0.5%. **Physical examination results:** Facial symmetry: symmetrical on both sides. External face, head posture, ocular position: normal. Ocular alignment and ocular motility: Normal. Visual acuity with Snellen's chart was found to be OU 6/6 and N6 at nearly 40 cm. IOP was 31.8 mmHg and 27.2 mmHg in the OD and OS, respectively. Slit lamp biomicroscopy of the anterior segment was found to be within normal limit whereas in the posterior segment, cupping was noted in OS which was 0.8:1 along with inferior rim thinning, and the OD was noted as 0.3:1. **Results of pathological tests and other investigations:** Central corneal thickness was found to be OD:511 micrometer, OS: 514 micrometer.The optic disc photo showed advanced cupping of the disc in OS.Humphrey's Visual Field was within normal limits. **Treatment plan:** The patient was advised to start the anti-glaucoma medication to control the IOP of both eyes.To control the further progression of SIG using anti-glaucoma medication. **Expected outcome:** Normalize the IOP of both eyes without surgical intervention. Further progression of glaucoma would be controlled. **Actual outcome:** The right and left eye IOP was eventually controlled with the anti-glaucoma medication which was 18 mmHg of OD and 13 mmHg of OS without surgical intervention.

POSTER 14

A CASE REPORT ON TOXOPLASMOSIS RETINOCHOROIDITIS ON A PATIENT WITH A HISTORY OF BITING NAILS

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Patient description: A 15-year-old female visited the hospital with a complaint of blurred vision in her right eye for 3 days. She also complained of pain and photophobia for 2 days in her right eye. Patient had no history of systemic disease and had an ocular pathological condition previously. Her family history was negative and she had a continuous habit of biting her nails. **Physical examination results:** On vision assessment through tumbling E chart, visual acuity in her OD was 2/60, and OS was 6/6, and there was no improvement with the pinhole. Net retinoscopy examination showed +1.75 D with dull reflex on OD and +1.50 on OS. IOP measurement through an air-puffed tonometer showed elevation in the right eye (29, 30, 30) and 18 mmHg in the left eye. Slit lamp eye examination revealed a slightly oedematous lower lid, circum ciliary congestion on conjunctiva and cells (3+) on the anterior chamber with a muddy iris. On pupillary response RAPD was positive and the lens was clear. Dilated eye evaluation through the +90D lens showed a fluffy lesion on the right eye on the macula. Patient was diagnosed with toxoplasmosis retinochoroiditis on right eye. **Results of pathological tests and other investigations:** Complete blood count was normal. On reviewing serum toxo titre shows IgM – 2.065AU/Ml and IgG–57.54 Iu/ML. **Treatment plan:** The consultant planned for an intravitreal injection clindamycin(1mg) and dexamethasone(0.4mg) under tropical anesthesia on right eye. Tablet co-trimoxazole 960mg 1 tablet BD, tablet prednisolone 40mg once a day, pantoprazole 40mg for a week, and continue previously provided treatment. The patient was advised to use acetazolamide tablet 250 mg 1 tablet after injection, ciprofloxacin 0.3% QID 1 drop in OD after intravitreal injection. Eye drop prednisolone acetate was prescribed 2-hourly for 2 week. Follow-up was planned after 2 weeks and patient visual acuity was 3/60 with sub conjunctival haemmorage, vitreous cells and reduced scar on follow up examination. Same treatment was prescribed with tapering of steroids. On third visit after two week, patient was diagosed with resolving toxo retinochoroiditis with visual acuity 6/36 on the right eye. Further, follow-up was assessed after 2 weeks and the visual acuity improved to 6/18. Slit lamp examination revealed epiretinal membrane and scar in right eye. All intervention were paused after diagnosis of healed toxo retinochoroiditis. **Expected outcome:** It was expected that her visual acuity will improve to 6/36 after complete intervention. **Actual outcome:** After third visit the fluffy lesion was partially healed and her vision improved upto 6/18 on the right eye.

POSTER 15

TOXIC OPTIC NEUROPATHY IN A TUBERCULOSIS PATIENT VISITING BIRATNAGAR EYE HOSPITAL (BEH) : A CASE REPORT

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Patient description: A 25-year-old Indian origin male patient computer operator by occupation presented with a complaint of defective vision in both eyes since 25 days in OPD of BEH. **Case history:** There was a progressive, painless decrease in vision in both eyes. Patient was under medication for pulmonary tuberculosis since one year ago. Patient had stopped medication for TB. **Physical examination results:** There was normal ocular alignment, ocular motility. There was normal facial symmetry. The examination revealed uncorrected visual acuity of 6/24 in right eye and 6/18 in left eye and 6/24 with -0.25DC @ 120 in right eye and 6/18 with -0.25 @30° in left eye. There was no relative afferent pupillary defect. **Results of pathological tests and other investigations:** Patient was advised to do OCT of macula and OCT of optic nerve head and the report was normal. There was defective colour vision and contrast sensitivity. **Treatment plan:** Tablet Pyrodoxine 100 mg 1 tablet BD, Tablet Thiamine 100mg 1 tablet BD, Tablet Nurvi 1 tablet BD, Tablet Meco OD 1 tablet OD, Tablet Folate 1 tablet OD. **Expected outcome:** After treatment vision was expected to be 6/6 in both eyes. Color vision and contrast sensitivity was expected to be normal. **Actual outcome:** In first follow up patient vision was improved to 6/12 in right eye and 6/9 in left eye. In second follow up patient vision was 6/9 in right eye and 6/9 in left eye. And in third follow up patient vision was 6/6 in right eye and 6/6 in left eye.

POSTER 16

A RARE CASE OF XERODERMA PIGMENTOSA

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Patient description: Age: 9-year-old Inidan male presented to our OPD with a complaint of diminished of vision in right eye which was gradually progressing since one year along with difficulty in sunlight. Associated complaint: Itching and dryness in both the eyes since few years ago. No history of using spectacles. Systemic complaint: Patient gave history of sun burn 7 months back where his skin has turned dark in matter of months. Systemic illness: Nil. Family history : similar type of illness was noted in his sister. **Physical examination results:** UCVA at distance- 6/60 (OD), 6/9 (OS)UCVA at near- N6 (OU) @ 25-30 cm. Dry Retinoscope values (Net, wd=50cm) OD -2.00DS/-3.00DC * 150 and OS was plano. Acceptance with BCVA at distance and near in OD with -2.00DS/-3.00*160 - 6/9, N6 @ 25-30cm and in OS with Plano 6/9 , N6 @ 25-30cm. Slit lamp examination of both eyes showed eyelid wiht blepharitis, cornea with multiple scars in the paracentral region along with dry looking cornea. Conjunctiva showed congestion and reddish. Sclera was normal. Lens was clear. Posterior segment examination was normal but peripheral couldn't be examined. On general physical examination:He also complained of sun burn on his face and body when examined it was different in nature. **Results of pathological tests and other investigations:** Schirmer test I in OD was 14mm and 12mm in OS. Schirmer test II showed in OD 8mm and OS 7mm. Patient was diagnosed as xeroderma pigmentosa (with the help of dermatologist consultation) with OD showed compound myopic astigmatism and OU with dry eye disease and blepharitis. **Treatment plan:** 1) Patient was given glasses for refractive error correction and photochromic glasses to control photophobia. 2) Patient was also given topical drops for dry eye disease. 3) Patient was asked to maintain lid hygiene. 4) Patient was referred to specialist centre for dermatologist consultation. **Expected outcome:** Blurring of vision along with difficulty in sunlight and dryness and itching in both the eyes were expected to be reduced. Lid hygiene was expected to be maintained by the patient. Normally, only these expectations would be fulfilled and the skin disease would not have been managed by an optometrist. **Actual outcome:** We did send this patient for dermatologist consultation and also asked for frequent follow up. Because of dermatologist we could actually diagnosed the disease and we came to know that the patient had an incurable disease and had a very bad prognosis in both eye as well as physical health. Extra ocular findings should always be noted when we are dealing with such cases and early referral of such would be very helpful.

POSTER 17

BLINDNESS PRESENTED WITH EXPOSURE TO ALPHAMETHRIN PESTICIDE

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Patient description: A 25-year Asian male farmer whose right eye was exposed to Alphacypermethrin while working in a agricultural field and presented with complaints of diminished vision, redness, eye ache and headache since 3 days. His vision in right eye was projection of rays (PR+) and left eye was 6/6. He has not any past medical illness. **Case history:** Aplhamethrin is a carbamet pesticide that contains Alphacypermethrin 10%. Alphacypermethrin pesticide functions as reversible cholinesterase inhibitor, which may produce life threatening complications including death if consumed orally. Cortical blindness and delayed neuropathy were rarely reported complications of Alphacyermethrin. Here, we reported a case of topical exposure of Alphacypermrthrin directly to eye which resulted in blindness. On details examination he was diagnosed with anterior uveitis with vitreous hemorrhage. B scan ultrasonography showed hyperechoic shadow suggestive of vitreous hemorrhage. On follow up after 2 days B scan ultrasonography was repeated which showed vitreous hemorrhage with retinal detachment and his vision was found no perception of light (NPL). **Physical examination results:** physical examination showed painful congested conjunctiva, watery eye with hazy cornea. **Results of pathological tests and other investigations:** Random blood sugar was within normal range. B scan ultrasonography showed hyperechoic shadow which is suggestive of vitreous hemorrhage. **Treatment plan:** patient was prescribed topical steroid with tapering dose and cycloplegic agent along with oral steroid, anti analgesic and antacid. **Expected outcome:** we expected to prevent his vision to some extent. **Actual outcome:** We reported a patient who was presented in our outpatient department with topical exposure of Alphacypermethrin directly to eye and developed blindness within short span of time. Hence, Physicians should be aware of this rare toxicity among patients with topical exposure of Alphacypermethrin to eyes as it can cause severe impairment of vision within short period of time and can lead to irreversible blindness.

POSTER 18

NEUROTROPHIC KERATITIS IN A FEMALE PATIENT FOLLOWING RIGHT FRONTAL CRANIOTOMY AND TUMOR EXCISION

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Patient description: 37-year-old female with a history of right frontal craniotomy and right sphenoid wing meningioma excision 10 days prior, presented with chronic right eye discomfort, blurred vision, and persistent redness along with no sensation on right eye as well as right facial part. **Physical examination results:** Examination revealed decreased corneal sensitivity, epithelial defects, stromal scarring, and mild stromal edema in the right eye. Visual acuity was counting finger at 2 meters with no improvement in pinhole in the right eye and 6/6 in the left eye. Fluorescein staining confirmed corneal epithelial defects. **Results of pathological tests and other investigations:** The diagnosis of neurotrophic keratitis was established based on the patient's surgical history, clinical symptoms, and corneal findings. **Treatment plan:** Goal of treatment are to prevent progression of epithelial damage, promote healing and facilitate repair, and prevent recurrences. Treatment included intensive preservative-free artificial tears, antibiotic ointment, and a therapeutic bandage contact lens. The patient was monitored through frequent follow-ups to assess treatment efficacy and adjust as needed. Persistent defects respond best to lateral or medial tarsorrhaphy (temporary or permanent). **Expected outcome:** Expected outcome of the treatment plan was even more confusing, it may take long time to get it healed with bandage contact lens or even it may get it treated with in a month. More severe, progressive, sterile or infectious ulcers may progress to descemetocele or perforation. **Actual outcome:** At the one-week follow-up, the patient showed slight improvement. By the three weeks follow-up, significant healing of the epithelial defects was observed, with improved corneal clarity and reduced symptoms. At two months, the cornea remained stable with no new defects, and the patient reported satisfactory comfort and vision.

POSTER 19

DELAYED DIAGNOSIS OF KERATOCONUS: CASE STUDY

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Patient description: Age: 26-year female, working as a dentist came for corneal collagen cross linking (CXL). Prior to ophthalmic consultation, she was diagnosed with keratoconus 1 week ago. Blurring of vision and frequent changes of vision in both eyes have been going on since 10 years. Patient had consulted elsewhere in the past, she was diagnosed with simple myopia at the first consultation with refractive error in OD -1.00 DS and OS -1.50 DS. On second consultation she was diagnosed with compound myopic astigmatism with refractive error in OD -3.00/-0.50*180 and OS -3.75/-0.75*180, on third refractive error was OD -5.00/1.00*180 and OS -5.75/-1.00*180 and at fourth visit progressed to OD -5.75/-1.00*180 and OS -8.75/-1.50*10 and latest on the fifth consultation, it was OD -7.75/-1.00*180 and OS -8.50/-1.75*175. There was no systemic illness and family history was normal. **Physical examination results:** External examination included: Facial symmetry: symmetrical on both sides. External face, head posture, ocular position: normal ocular alignment. Ocular motility: normal. OUFunctional examination: Examination with Snellen's chart showed uncorrected visual acuity to be OU 6/60 and N12 at near 10 cm. After performing dry refraction subjective acceptance was OD -8.00/-1.00*170 and OS-8.00/-1.75*175 with best spectacles corrected visual acuity (BSCVA) 6/18P, N12 @ 30cm in OD and 6/12, N12@30 cm in OS. Best corrected visual acuity (BCVA) with rigid contact lenses (CL) trial was OD 6/12, N6 @30 cm and OS 6/9, N6 @ 30cm. **Results of pathological tests and other investigations:** IOP: OD 19 mm, OS 20 mmHg . Slit lamp biomicroscopy: Anterior segment: eyelid normal OU, conjunctiva normal OU, sclera normal OU, cornea showed central corneal thinning in OU along with nebular grade corneal scar in OS, deep anterior chamber OU, pupil showed OU round, regular, reacting. Post dilated examination: OU lens clear, fundus examination showed 0.30:1 CDR and blood vessel appeared normal OU. Corneal topography: showed B/L KC with simulated OD steep meridian 50.56 @142 and OS steep meridian 49.53 @ 172 along with the thinnest point OD 418 µm and OS 447 µm. **Treatment plan:** Due to delay diagnosis of KC, immediate B/L CXL was planned to decrease the risk of progression and patient was advised to use CL post C3R. **Expected outcome:** Post C3R stable visual acuity, corneal curvature and corneal thickness was expected. **Actual outcome:** On follow up after 2 years post C3R, patient was unable to wear CL long due to compromised fitting and dropped BCVA. Corneal topography revealed simulated OD steep meridian 49.39 D @124 and OS steep meridian 48.92 D @ 159 revealing further steepening of cornea with thinnest point OD 395 µm and OS 439 µm.

Also Refractive error progressed to OD -7.50/-2.50* 180 and OS -8.00/-2.25* 180 and BSCVA was OD 6/18 and OS 6/12. New CL trial with miniscleral CL improved BCVA OU 6/9, N8 @ 30 cm.NOTE: With this case, we would like to highlight the importance of diagnosing subclinical KC in young patient as well screening in specific patients, since the cornea appears normal upon clinical examination albeit challenging, especially in patients with no evident risk factors or family history.

POSTER 20

CASE REPORT: MANAGING A KERATOCONUS PATIENT HAVING CORNEAL OPACITY AND VERY HIGH ABERRATIONS WITH CORNEOSCLERAL LENSES

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Patient description: A 22-year-old male student was diagnosed with bilateral keratoconus. Initial visual acuity: 6/60 in the right eye and 1/60 in the left eye, the patient was unsatisfied with his previous prescriptions and has stopped wearing glasses. Previous interventions: Medically managed for acute hydrops in the left eye. Patient's Complaint: Unsatisfied with his vision and difficulty coping with his academics. **Physical examination results:** Upon examination, Munson's sign and the oil droplet reflex were present in both eyes. The left eye had corneal opacity following acute hydrops, whereas the right eye was clear. **Results of pathological tests and other investigations:** Aberrations: High-order aberrations in both eyes, with the left eye showing higher overall values. Epithelial Mapping: Inconsistent epithelial thickness in the left eye. **Treatment plan:** Since corneal asymmetries could be veiled to a large extent using rigid contact lenses, the patient was planned to fit rigid contact lenses and especially scleral contact lens. **Expected outcome:** Visual acuity improvement: Anticipated improvement in visual acuity due to reduced aberrations. Avoidance of surgery: Aim to avoid surgical intervention by using scleral lenses. **Actual outcome:** Visual acuity: Improved to 6/9 in the right eye and 6/12 in the left eye. Reduction in aberrations: Notable reduction in aberrations leading to improved vision. Surgical Intervention: Successfully avoided.

POSTER 21

VISUAL REHABILITATION OF ADVANCED KERATOCONUS CASE WITH CUSTOM MADE ONEFIT MED SCLERAL CONTACT LENS

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Patient description: A 44-year-old female with occupation of teacher was presented with complaint of progressive loss of vision for distance and near in left eye for last 2 year followed by right eye for last 6 months. Other associated symptoms were watering, irritation and photophobia. **Case history:** She had been diagnosed as keratoconus already. Due to progressive worsening of vision, she was facing difficulty to perform her daily living activities like walking, cooking meals, cleaning, shopping, washing clothes, grooming, taking attendance, checking notebooks, making reports and results and others administrative works. She was performing all activities with the help of staffs, students and relatives. All the members of her family - husband, son and daughter as well as her brothers were blind due to optic atrophy. She was the only one member of family to take care of others members. All the members of family were dependent on her for their daily activities and financial support. **Physical examination results:** Her presenting visual acuity in right eye was 1/60 and left eye F.C at close to face. Her best corrected visual acuity was 5/60 in right eye and left eye was not improved. Slit lamp examination showed that both eye's cornea was steeper and thinner with left eye corneal scarring, stromal oedema and acute hydro drops. **Results of pathological tests and other investigations:** Central corneal thickness was RE 330 µm and LE 374 µm. Topography report showed highly steeper and thinner cornea with right eye eccentric cone. **Treatment plan:** First trial with Corneo scleral contact lens (CSL) was done in right eye (RE). Visual outcomes was 6/36 +1 with fitting of central high vault, infero-temporal touch by cone. Anterior segment OCT examination showed central vault of 800 micron. Second trial was done with 5750/15.6/-11.00 onefit Med. scleral contact lens. Visual outcome was 6/24 with fitting of central high vault, mid peripheral touch at infero-temporal region and slight edge left at 2 o'clock and 7 o'clock position. Again, third trial was done with 5900/15.6/-12.00 high vault lens and modification was done at center, mid peripheral and peripheral and at edges with the help of software. Centre high vault was controlled by Oblate CCR190. Diameter of the lens was modified to 16mm. Mid- peripheral region was increased by +250 micron vault, peripheral region by +150 micron at 12, 3, 6 o'clock position and +200 at 9 o'clock. **Expected outcome:** Visual outcome and fitting status would be improved through Custom made scleral contact lens. **Actual outcome:** Visual outcome with final lens was 6/12P for distance and with near correction N8 @ 25-35 cm. At her most recent follow-up

examination, patient reported that she has been successfully doing her daily living activities as well as academic activities comfortably and independently.

POSTER 22

OCULO-VISUAL REHABILITATION WITH ONEFIT MED SCLERAL CONTACT LENS IN STEVEN JOHNSON SYNDROME: A CASE REPORT

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Patient description: A 31-year-old woman was referred from the cornea department to ourcontact lens clinic for a contact lens trial in both eyes. The patient complained of blurry vision at distance, as well as redness, itching, extensive photophobia, and watering in both eyes. Visual acuity and slit lamp examination were conducted during the initial assessment. **Case history:** The patient had a drug (Sulpha) reaction in 2002, and since then, she has been gradually losing her vision and developed a corneal scar with vascularization. The patient wished to have a corneal transplant for improvement. Unaided visual acuities in both eyes were counting fingers at 1 meter and 50 cm, respectively, which did not improve with spectacles. Slit lamp examination revealed trichiasis, circumciliary congestion, and corneal scar with vascularization, with no view beyond due to corneal opacities. According to the reports, the patient was diagnosed with Stevens-Johnson syndrome(SJS) and was referred to the contact lens clinic for a scleral contact lens trial. **Physical examination results:** Nil. **Results of pathological tests and other investigations:** Nil**. Treatment plan:** A trial of 14.50 mm diameter corneo-scleral lenses (CSL) was conducted. Vision improved to 6/48 in theright eye, with no improvement in the left eye. Although vision was restored in the right eye, ocularcomfort was not achieved with the CSL. Subsequently, a trial with uniquely designed Onefit MED lensesof 15.60 mm diameter was conducted, where the patient's comfort level was very high. **Expected outcome:** The Onefit MED lenses were selected based on the corneal steepness or flatness. Onefit MED lenseshave a central, mid-periphery, limbal vault, and landing zone with a +75 micron flat zone and a -75micron steep zone. The parameters 5000 / -6.00 / 15.60 mm and 4900 / -5.00 / 15.60 mm were selectedfor the right and left eyes, respectively. While evaluating the trial, refraction on lens (ROL) values of+3.50 Ds (6/48) in the right eye and plano (CF@ 50 cm) in the left eye were revealed, with minimalcentral clearance and low limbal clearance. After 4 hours of trial, debris was found in the vault, and theedge zone was adjusted in specific quadrants accordingly. **Actual**

outcome: Following the evaluation of the first trial lens, the final ideal parameters were obtained: 5100 / -3.50 /15.60 mm for the right eye and 5100 / -5.25 / 15.60 mm for the left eye.

POSTER 23

PATTERN OF RGP CONTACT LENS FIT IN DIFFERENT PROFILE OF CORNEA

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Patient description: Case-i. A 20-year-old female presented with diminished of vision in left eyes for the past 2 years. Case-ii. A 27-year-old male presented blurring of vision since childhood but comfortable with glass, now feeling difficulty. Case-iii. A 29-year-old male presented decrease of vision of right eye with frequent change in glasses and no comfortable vision in right eye for the past 9-years. Case-iv. A 14-year-old male presented painless, progressive decrease of vision in left eye since 1 year. **Case history:** None had any general or medical history, nor had they undergone ocular surgery in all cases, but cases i, ii, and iii had their prescription glasses changed, with case iii requiring frequent changes. There was no history of eye rubbing or ocular trauma in cases i, ii, and iii, but case iv had a history of eye rubbing. None of the patients had a notable family history related to their condition. **Physical examination results:** In case-I,the unaided visual acuity was 6/6 and CF at 5m, retinoscopy was +0.00 and +5.00/-6.00x180 ,with the best-corrected visual acuity (BCVA) was 6/6 for the RE and 6/9p for the LE respectively .In case-ii, unaided visual acuity was 6/60 and 3/60,retinoscopy was -2.00/-3.00x180 and -3.00/-5.00x180, with BCVA was6/6p and 6/9p for the RE and for the LE respectivelyIn case-iii, unaided visual acuity was CF at 1m and 6/60, Dry retinoscopy was -25.00/-8.00x70 and -2.00, with BCVA was CF at 5m and 6/6 for the RE and for the LE respectivelyIn case-iv, unaided visual acuity was 6/6 and CF at 50cm, retinoscopy was -0.25 and -12.00/-6.00x165,with BCVA was6/6 and 6/60 for the RE and for the LE respectivelyIn all cases, both slit-lamp and fundus examinations showed normal findings. However, in Cases III and IV, slit-lamp examinations revealed Vogt's Striae and Fleischer's Ring. **Results of pathological tests and other investigations:** To evaluate the corneal profile, assessments such as keratometry, corneal topography, and pachymetry were conducted. Case-i had highly flat regular astigmatism. Case-ii had highly steep regular astigmatism. Case-iii had advance keratoconus with decentered cone. Case-iv had advance keratoconus and a centered cone. **Treatment plan:** All case were referred to contact lens clinic for rigid permeable (RGP) contact lens trial. **Expected outcome:** aimed for an ideal fit of RGP contact lenses; however, variations in corneal steepness and irregularities across each case resulted in different fitting patterns for each patient. **Actual outcome:** In highly flat cornea, lens was fitted steep, center pooling with mid touch and thin edge band, usually decenter inferiorly but not cross Limbus, fairly stable, comfort and clear due to limit movementIn highly steep cornea, lens was fitted flat, center slightly touch with mid peripheral pooling at steeper meridian with wide edge

band, usually center, stable and optimum lens movementIn advance keratoconus, lens was fit flat, Centre heavy touch with mid peripheral heavy pooling with excessive edge lift, fairly comfort and optimum vision. lens was less stable and decentered in decenter cone keratoconus whereas stable and centration in center cone keratoconus

POSTER 24

ROLE OF SCLERAL LENS FRONT SURFACE ECCENTRICITY IN EYES WITH REFRACTIVE SURGERY INDUCED HIGHER ORDER ABERRATIONS (HOAS).

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Patient description: A female in her 20s came to the clinic with complaints of diminution of vision for both near and distance since last 4 months associated with shadowing and ghosting of images after keratorefractive surgery. She had undergone SMILE surgery for her myopia. **Case history:** Patient's uncorrected visual acuity (VA) was 20/60 and 20/40 in RE and LE respectively. On subjective refraction, her VA improved to 20/20p with -0.50 DS/-1.50 DC x 40° in RE and 20/25 with ± /-1.00 DC x 90° in LE. Even with the best corrected vision, her complaints of shadowing of optotypes, and ghosting of images persisted. **Physical examination results:** The cornea of BE revealed a well-demarcated ring-shaped area of ablation with faint scarring at anterior stroma and a well apposed corneal section superiorly. Intra-ocular pressure and posterior segment were within normal limits in both her eyes. **Results of pathological tests and other investigations:** Corneal topography showed average flat and steep keratometric reading of 38.8 D, and 39.9 D for RE, and 37.0 D , and 37.3 D for LE respectively. The front and back surface asphericity (@6mm) for RE was 0.47 and 0, and for LE was 1.57 and -0.03. Aberrometry performed under scotopic conditions showed HOAs of 0.230 µ (coma: 0.058 µ x 88, spherical: +0.059 µ, secondary astigmatism: 0.043 µ x 66, trefoil: 0.162 µ x 97) in RE and 0.237 µ (coma: 0.172 µ x 102, spherical: +0.130 µ, secondary astigmatism: 0.039 µ x 85, trefoil: 0.068 µ x 77) in LE. Anterior segment optical coherence topography showed epithelial irregularity bilaterally. **Treatment plan:** In view of HOAs due to irregularity in cornea post SMILE, complaints of ghosting images, and unwillingness to use spectacles, patient was advised for contact lens trial.Both conventional RGP (Purecon, New Delhi, India) and Rose K2 lenses (Menicon Co. Ltd, Nagoya, Japan) were tried but patient was also intolerant to these corneal lenses. She was then advised for BSS (Boston Sight Scleral) lenses.Three different Boston Sight Scleral lenses (Boston, Massachusetts, USA) with the same parameters except the different FSEs (0, 0.6 and 0.8) were tried. Initially, lens of 0.6 FSE was applied followed by 0 and lastly 0.8 eccentricity to observe the trend in visual performance and aberrations. The visual acuity was noted followed by over-refraction, then ocular aberrometery was performed. **Expected outcome:** VA after over-refraction was found to be 20/25p in BE with 0.6 FSE, which improved to 20/20 with 0 FSE. Best corrected HCDVA improved only till 20/30 in BE with 0.8 FSE. A notable reduction in image ghosting was observed when employing 0 FSE compared to 0.6 or 0.8. Both

quality of vision and HOAs improved with 0 FSE lens, hence these lenses were ordered along with power modifications. **Actual outcome:** HOAs can contribute to patient's dissatisfaction after kerato-refractive surgeries like SMILE. This case highlights the role of scleral lenses with different FSEs to negate these aberrations to an extent to provide best optical quality and comfort in eyes post SMILE surgery.

POSTER 25

VISUAL REHABILITATION WITH SPECIALITY SCLERAL CONTACT LENS IN CASE OF STEVEN JOHNSON'S SYNDROME (SJS): A CASE REPORT

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Patient description: A 26-year-old female who was referred from the cornea department to our contact lens clinic for a contact lens trial in both eyes. The patient complained of blurry vision at a distance, as well as foreign body sensation, itching, extensive photophobia, Discharge and watering in both eyes since 16 years. Visual acuity and slit lamp examinations were conducted during the initial assessment. **Case history:** The patient had a history of Chicken Pox in 2008, and since then, she has been gradually losing her vision and developed a corneal scar with vascularization. The patient wishes to have a corneal transplant for improvement. On the Snellen chart, unaided visual acuities in both eyes were 6/60 and 5/60 , respectively, which improve with spectacles Right Eye 6/18 and Left Eye 6/18. Slit lamp examination revealed trichiasis, circumciliary congestion, and corneal scar with vascularization, with no view beyond due to corneal opacities. According to the reports, the patient was diagnosed with Stevens-Johnson syndrome (SJS) and referred to the contact lens clinic for a scleral contact lens trial. **Physical examination results:** NIL. **Results of pathological tests and other investigations:** NIL. **Treatment plan:** A trial of 14.50 mm diameter corneo-scleral lenses (CSL) was conducted. Vision improved to 6/6 in the right eye, with 6/9 in the left eye. Although vision was restored in the both eyes, ocular comfort was achieved with the Corneo-Scleral Lens(CSL). Subsequently, a trial with uniquely designed Corneo-Scleral lenses(CSL) of 14.50 mm diameter was conducted, where the patient's comfort level was very high. **Expected outcome:** The Corneo-Scleral Contact lenses were selected based on the corneal steepness or flatness. Corneo-Scleral lenses(CSL) have a central, mid-periphery, vault, and landing zone 3P flat zone and 7O steep zone. The parameters Right Eye L7Z/7.40/4.18/-6.00/14.50 mm and Left Eye L3Z/7.50/4.13/-6.00/14.50 mm were selected for the right and left eyes, respectively. While evaluating the trial, refraction on lens (ROL) values of +2.00DS Ds (6/6) in the right eye and +2.00DS(6/6) in the left eye were revealed, with minimal central clearance and low limbal clearance. After 4 hours of trial, debris was found in the vault, and the edge zone was adjusted accordingly. **Actual outcome:** Following the evaluation of the first trial lens, the final ideal parameters were obtained: L7Z/7.40/4.18/-6.00/14.50mm for the right eye and L3Z/7.50/4.13/-6.00/14.50 mm for the left eye. Compromised vision due to Steven Johnson's Syndrome (SJS) could be frustrating but

specialized evaluation and testing of Corneo-Scleral Contact Lens(CSL) may be a hope of better patient visual Rehabilitation.

POSTER 26

REGIONAL SETTLING OF SCLERAL LENS IN KERATOCONUS PATIENTS

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Introduction: Scleral lenses are widely used to manage corneal ectasias and complex fitting challenges, offering advantages over traditional gas permeable lenses by resting on the sclera and vaulting over the cornea. Achieving the correct vault is crucial for optimal visual outcomes and corneal health, but lenses tend to settle over time and across different corneal regions, affecting the vault. Understanding regional settling patterns is vital, as uneven settling can impact corneal pressure and tear exchange, particularly in keratoconus patients with compromised corneas. However, there is limited knowledge about these regional settling patterns for scleral lenses. This study aims to assess how scleral lens vault settles regionally among keratoconus patients. **Methods**: This is a cross sectional, hospital based study among 14 patients (20 eyes) with keratoconus. The participants were fitted with a scleral lens with lens diameter of 14.5 mm. Anterior segment optical coherence tomography was performed within 15 min of lens placement, after 2 hours and 4 hours of continuous lens wear. The lens vault was measured at the center and 2 mm superior, inferior, nasal, and temporal to the center of the cornea. **Results:** The scleral lens vault was significantly reduced from 15 mins of lens placement (449.09 $\pm$ 117.09 µm) to 4 hours of lens wear (348.43 $\pm$ 105.11 µm), with most of the settling occurring within 2 hours. The lens settling varied across different corneal regions. The mean difference in inferior vault from 0 to 4 hours of scleral lens wear was 117.10 $\pm$ 78.28 µm ($p<0.01$); central vault was 112.75 $\pm$ 80.58 µm ($p<0.01$); nasal vault was 105.50 $\pm$ 56.23 µm ($p<0.01$); temporal vault was 105.40 $\pm$ 76.68 µm ($p<0.01$); and superior vault was 62.55 $\pm$ 36.35 µm ($p<0.01$). **Conclusions**: The majority of scleral lens settling in keratoconus patients occurred within the first 2 hours of wear, continuing gradually up to 4 hours. Notable regional differences in scleral contact lens settling were observed across various corneal zones, with the lenses predominantly settling inferiorly, followed by central, nasal, temporal, and superior regions.

POSTER 27

MOTION PERCEPTION IN INFANTILE NYSTAGMUS SYNDROME

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Introduction: Nystagmus results in poor visual performance across different visual functions. One of the less studied visual functions in nystagmus is motion perception which is vital for everyday task in our dynamic world. The abnormal eye oscillations in nystagmus causes smearing of retinal images creating image blur, which may reduce ability to perceive dynamic objects more than the static ones. This study aims to evaluate motion and static shape perception in infantile nystagmus syndrome to provide a comprehensive spectrum of visual deficits in nystagmus. **Methods**: A cross-sectional study was conducted among 15 participants (> 6 years, mean age 13.00 ± 4.21 years) with infantile nystagmus syndrome and age-matched healthy controls. Physically equivalent translational random dot kinematograms (RDK) and Glass patterns were used to assess motion and shape perception respectively. Both stimuli consisted of 500 black dots (RDK), 250 pairs of dipoles (Glass pattern) with dot density of 12.80 dots/deg2, and stimulus duration of 0.5s. Two experimental paradigm was employed: coherence threshold estimation (random noise) and equivalent noise (5 noise levels). The observer's task in both experiments was to discriminate rightward vs leftward direction/orientation in RDK/Glass patterns. **Results:** The mean log MAR binocular distance (nystagmus= 0.56±0.28, controls= -0.01±0.03) and near visual acuity (0.50±0.24, 0.01±0.02), and stereoacuity (137.67"±93.19, 14.33"±7.5) were worse in nystagmus compared to normal control ($p<0.05$). The mean coherence thresholds for translational motion were higher in participants with nystagmus (56.08% ± 24.4, 36.87% ± 19.25) compared to controls (25.58%±15.21, 21.98%±15.33) for both 5^{o} and 10^{o}/s speeds ($p<0.05$). However, the mean orientation coherence thresholds for Glass pattern were similar between nystagmus (11.55%±5.68) and controls (8.56%±3.57) ($p>0.05$). Similar pattern of result was observed in equivalent noise paradigm, where direction discrimination thresholds were higher for nystagmus at all 5 noise levels ($p<0.05$) but not for orientation discrimination thresholds in Glass patterns ($p>0.05$). **Conclusions**: Nystagmus results in lower sensitivity to direction of motion at different speeds, however the static shape perception is largely normal. The deficit in motion sensitivity could be due to higher retinal image blur due to abnormal eye movement while observing moving objects.

POSTER 28

TWELVE WEEKS TREATMENT OUTCOME OF OMEGA-3 FATTY ACID IN COMPUTER VISIONSYNDROME DRY EYE: AN OPEN LABEL, RANDOMIZED, CONTROLLED PILOT STUDY

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Introduction: The incidence of Computer Vision Syndrome Dry Eye is on an increase. This study was targeted to evaluate the effect of Omega3 Fatty Acids on this particular segment of population. **Methods**: A prospective, open label, randomized controlled trial was conducted on 67 male professional computer users aged 25-45 yearswho used computer for 8-10 hours a day. All the patients were subjected to OSDI questionnaire and patients with moderate-tosevere Dry Eye were included in the study. They were clinically monitored by TBUT, Rose Bengal Staining and Schirmer’ s 1 Test withanaesthesia on Day 1 and after 12 weeks of treatment. The patients were randomly divided into two groups. Group 1 (Prescribedonly lubricant drops) consisted of 33 patients. Group 2 (Prescribed lubricant drops along with commercially available Omega 3 fattyacids with EPA 180 mg and DHA 120 mg 2 capsules a day for twelve weeks) consisted of 34 patients. **Results:** Statistical Software SPSS 21.0 was used to analyse the results. In Group 1, the mean OSDI, TBUT, RBS, Schirmer’s Test parameters before treatment were 32.42 5.52, 6.25 1.32, 3.72 2.47, 6.03 1.40 and after treatment were 28.38 5.81, 7.06 2.03, 3.22 2.34, 6.53 1.61respectively. Whereas in Group 2 before treatment they were 33.09 5.89, 5.26 1.56, 4.24 2.43, 5.62 1.58 and after treatment were 14.76 6.59, 9.12 1.47, 0.88 1.04, 9.15 1.65 respectively. **Conclusions**: The comparison of the scores of two groups revealed an undeniably positive role of Omega 3 Fatty Acids in Dry Eye of Computer Vision Syndrome.

POSTER 29

IMPACT OF PTERYGIUM ON DRY EYE AND MEIBOMIAN GLAND PARAMETERS

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Introduction: Dry eye is a multifactorial disease of the tears and ocular surface that results in symptoms of discomfort, visual disturbance, and tear film instability with potential damage to the ocular surface. Mechanical factors are also associated with meibomian gland dysregulation in patients with pterygium. Dry eye parameters were assessed, and the results support the association between pterygium and dry eye disease. This study is aimed to investigate how meibomian gland dysfunction and dry eye parameters relate to the existence of pterygium. **Methods**: Patients with pterygium and healthy volunteers of similar age and demographic characteristics were included. Schirmer 1 test, Ocular Surface Disease Index score, fluorescein tear film breakup time, and were recorded. Meiboscores were estimated based on meibomian gland loss rate on infrared meibography (IBM Systemi). **Results:** 32 eyes with pterygium (Case) and 32 eyes of healthy volunteer(controls) were included. The mean age was 45.5 +/- 1.086 where 13 were males and 19 were females in each group. However, there was a significant difference in schirmer test between two groups where mean of group 1 was 7.03 +/- 3.86 and group 2 was 11.5 +/- 6.83 with $t(62) = -3.22$, $p = .02$. Similarly there was a significant difference in NIBUT and TBUT with $t(62) = -3.07$, $p = 0.003$ and $t(62) = -5.24$, $p = .001$ respectively. The mean meibomian gland loss of upper tarsal in group 1 and group 2 were 35.2 +/- 10.2 and 29.1 +/- 12 with $t(62)=2.17$, $p = .03$ which is a significant difference. Similarly, the mean meibomian gland loss of lower tarsal in group 1 and group 2 were 29.6 +/- 10.3 and 24.2 +/-9.14 respectively with $t(62)=2.24$, $p = .02$ which is also a significant difference between the groups. **Conclusions**: In our study, we did find significant difference in dry eye and meibomian gland parameters. Our results add to the fact that pterygium do have a impact on dry eyes and meibomian gland dysfunction. Therefore, we conclude that, yes pterygium could trigger or worsen or initiate dry eye and meibomian gland depletion.

POSTER 30

EFFECTIVENESS OF COMBINATION THERAPY IN MYOPIA MANAGEMENT: CASE REPORT

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Patient description: Patient age: 7 years. Occupation: Student. Nationality: Indian, Birth history: Full term, normal delivery, no history of seizures or incubation, no delayed developmental milestone. Height and weight: Appear normal, no systemic illness. **Case history:** Initial visit (02/2023): The child complained of frequent change of spectacles. After wet refraction (CTC) OD -5.50 D (6/9p), OS -4.75 D (6/9p) noted. On further examination with slit lamp biomicroscopy revealed: Anterior chamber depth VHIV, pupil round, regular, reacting with no afferent pupillary defect, iris normal, lens clear, cup disc ratio OU 0.2:1, IOP (OU) WNL, and not any retinal abnormality detected. Cover test, MEM retinoscopy was performed, results were within normal limits. Considering child's age and history of frequent change in refraction, biometry was performed, axial length OD 24.49 mm, OS 24.33 mm and OU K reading 7.75 mm noted, considering axial length higher than emmetropic counterparts axial myopia was diagnosed and was advised to use Atropine 0.01% eye drop once daily. Child and parents were also counselled regarding the environmental and lifestyle modifications as well as proper instillation of eye drop. Follow-up #1(06/2023): After 4 months, further worsening of myopia by 0.50 D OD and 0.75D OS noted with change in axial length OD 0.24 mm, OS 0.35 mm. IOP (OU) WNL. Considering significant change, child was started on Atropine (0.01%) eye drop twice daily. **Physical examination results:** Facial symmetry: Symmetrical on both sides, External face: Normal, Head posture: Normal, Ocular position: Normal, Ocular alignment (HBT): Central. **Results of pathological tests and other investigations:** Follow-up #2 (01/2024): After 6 months further worsening of myopia by 0.50 D OD and 1.00 D in OS noted, IOP (OU) WNL. Peripheral refraction was performed using Shin-Nippon NVision K5001 autorefractor which revealed both eyes Relative Peripheral Hyperopia. Biometry was also performed and axial length OD 25.14, OS 25.17 mm found, and change in axial length OD 0.41 mm, OS 0.49 mm noted. **Treatment plan:** As starting Atropine 0.01% twice a day not resulted in expected control. Considering very steep change in axial length, refraction and RPH in both eyes, child was started on combination therapy with Atropine (0.01%) once daily + Peripheral defocus spectacles. **Expected outcome:** Expected outcome: Based on previous research works available, the expected outcome was to arrest the rate of axial length changes between 0.10 to 0.20 mm or at least by 0.28 mm per year. **Actual outcome:** Follow-up #3 (06/2024): After 6 months, the child's myopia increased by OU

0.25 D and change in axial length OD 0.11 and OS 0.12 mm noted, which is significant control compared to when child was using Atropine (0.01%) eye drop once or twice daily. This reaffirms the notion that combination therapy is more effective myopia control strategy than monotherapy. Considering significant control child is advised to continue combination therapy for now. Note: Rate of monthly change in axial length (OD 0.06, OS 0.09 mm), (OD 0.06, OS 0.07 mm), (OD 0.02, OS 0.02 mm) while using Atropine (0.01%) once daily, Atropine twice daily, and Atropine once daily+ Peripheral defocus spectacle respectively.

POSTER 31

COMPARISON OF VEP AMPLITUDES AND LATENCY FOR INDUCED MYOPES AND UNCORRECTED MYOPES

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Introduction: Visual evoked potential measures neuronal activity amplitude and conduction time from the retina to the occipital cortex. Visual evoked potentials represent a valid electrophysiologic tool in neurological pathologies. The study aims to answer: Do induced-refractive errors in VEP studies truly reflect the uncorrected ammetropes? To answer this question, we compared the effect of pattern VEP amplitude and latency in uncorrected myopes against induced equivalent refractive error in emmetropes. **Methods**: Monocular VEPs were recorded in 6 emmetropes (Mean age $\pm$ SD: 22.5 $\pm$ 1.76) and 6 habitual myopes (-1.25 to -5.75D) (Mean age $\pm$ SD: 22.5 $\pm$ 1.51) for three different field sizes namely 30, 60 and 120o. ISCEV protocols were followed with regards to electrodes placement and recording for VEPs. N75 and P100 amplitudes and latencies were identified by an automated post-signal processing algorithm. **Results:** Habitual myopes (111 $\pm$ 11.76 ms) showed significantly longer P100 latencies than induced myopes (103.98 $\pm$ 5.32 ms) for 30o field size (t test, p = 0.046). There was no systematic pattern of increase/decrease observed on comparison of VEP amplitudes between the two groups. **Conclusions**: The latency differences suggests blur processing times may be different in habitual myopes compared to induced myopic subjects.

POSTER 32

EARLY PRESBYOPIA A PSYCHOSOMATIC DISORDER

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Introduction: To evaluate the factors associated with early presbyopia. **Methods**: This study was carried out in outpatient department of Ramlal Golchha Eye Hospital Foundation from March 2013 to December 2014. The total number of patients included in this study was 322, who were diagnosed as early presbyopia. Patients below 40 years of age who were presented with complaint of decreased near vision were included in this study. Patients having any ocular pathologies like Corneal Opacity, Cataract, Uveitis, Vitritis and Retinal Detachment were excluded from this study. A detailed history of patients regarding any disorders, tobacco use, any refractive error, glaucoma and occupation was taken. A careful history regarding age was also taken. Patients were examined thoroughly in the OPD and were refracted and appropriate glasses were prescribed. **Results:** Out of 322 patients 37.90% were male and 62.10% were female with mean age of 34.7±4.06 years. Tobacco chewers who were presented with early presbyopia were 119(36.95%), 65(20.1%) had gastritis, 22(6.8%) had diabetes mellitus and 20(6.2%) had hypertension. 13(4.04%) had both hypertension and diabetes mellitus. Computer operators with early presbyopia were 17(5.3%), presentation of patients with refractive error was 20(6.2%). Less prevalent factors associated with early presbyopia were smoking 10(3.1%), glaucoma 9(2.8%), anaemia 8(2.5%), thyroid disease 4(1.24%). Arthritis and allergic disorders were 3 (0.93%). Patients who were presented with no specific cause were 9(2.8%). **Conclusions**: Early Presbyopia is common in a society with associated psychosomatic disorders due to stressful social environment and financial conditions. People are anxious and they have habit of nicotine and tobacco abuse. Associated gastritis, hypertension and headache are further indicators of early presbyopia being psychosomatic disorders.

POSTER 33

THE ROLE OF ARTIFICIAL INTELLIGENCE IN VISION TESTING AND EYE HEALTH

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Introduction: Artificial Intelligence (AI) has emerged as a transformative force in the realm of vision testing and eye health, revolutionizing traditional approaches to diagnosis, treatment, and prevention. As our understanding of ocular diseases deepens and technological capabilities expand, AI-driven innovations are increasingly employed to enhance the accuracy, efficiency, and accessibility of eye care. From advanced diagnostic tools capable of detecting minute abnormalities in retinal images to personalized treatment strategies tailored through sophisticated data analysis, AI is paving the way for earlier intervention, improved outcomes, and expanded global access to critical eye health services. This intersection of cutting-edge technology and medical science not only promises to redefine standards of care but also underscores AI's profound potential to safeguard and optimize the precious gift of sight for individuals worldwide. **Methods**: 1. Automated Retinal Image Analysis: AI algorithms are used to analyze retinal images from fundus photography or OCT scans to detect signs of diabetic retinopathy, age-related macular degeneration (AMD), glaucoma, and other eye diseases. 2. Virtual Reality (VR) for Vision Therapy: VR systems integrated with AI algorithms are being used for vision therapy and rehabilitation. 3. Telemedicine and Remote Monitoring: AI-powered telemedicine platforms allow ophthalmologists to remotely diagnose and monitor patients. 4. Predictive Analytics for Disease Progression: AI models analyze large datasets of patient records to predict the progression of diseases such as glaucoma or AMD. 5. Surgical Assistance and Robotics: AI is integrated into surgical robots used in ophthalmic surgeries, enhancing precision and reducing risks. 6. Personalized Treatment Planning: AI analyzes genetic, imaging, and clinical data to personalize treatment plans for patients with complex eye conditions. 7. Drug Discovery and Development: AI accelerates drug discovery by analyzing vast datasets to identify potential compounds for treating eye diseases. **Results:** 1. Improved Diagnostics and Screening. 2. Enhanced Efficiency and Speed. 3. Telemedicine and Remote Monitoring. 4. Training and Education. 5. Clinical Trials and Research. **Conclusions**: Artificial intelligence is deemed to be the fourth industrial revolution in human history. In healthcare, we need to embrace this technology early to improve work efficiency while maintaining the high standards of clinical care.

END OF SESSION