

# EIZOC MIDCON – 2022

## ABSTRACTS

### (Case reports & Series)

#### (4 minutes presentation 1 minute discussion)

##### 1. Case report on Ocular Surface Squamous Neoplasia (OSSN)

Dr. Dimple Deori

The prevalence of OSSN, acc. to epidemiological studies ranges from 0.2 /cases/million/Yr in UK, 1996 to 36 cases/million/Yr in Uganda, 1992. CIN has been reported to be most common neoplasia and Squamous Cell Carcinoma has been found to be most common conjunctival malignancy. In caucasians it affects 60-70yr age groups but in Africa and certain parts of Asia, it can affect younger age groups and aggressive. The etiology is multi factorial including environmental factors in susceptible host, similar patterns also observed in pt with HIV and Xeroderma pigmentosum. Here we are presenting a case of 45yrs old male of Tea garden area complaining of a new enlarging mass over R/E for 2yrs associated with redness, FB sensation but no pain. There was no past H/O any trauma, ocular surgery, DM or HTN. The mass located in the temporal region of R/E near limbus, progressive in nature, nodular with brownish black colouration not responding to any topical medications prescribed by local doctors. He is non-veg, non-smoker, non-allergic to any drug/food from lower socioeconomic class. On examination, his vision was 6/18 B/E with IOP 17.3mmHg B/E, Patent NLD B/E. Eyelid, EOM, Cornea, Ant. Chamber, Pupil and Fundus findings were normal. Conjunctiva on inspection found, there was an elevated nodular sessile mass over temporal limbus of size 5mm\*5mm\*1mm around 6-9 o'clock position, brownish black colour, fleshy, fixed to underlying sclera along with feeder vessels over the mass seen which is nontender in palpitation. Pt was admitted on the 1st day, routine blood exam was found normal, HIV and HBsAg negative, OCT and UBM R/E suggested but not done. He was started on E/D Moxifloxacin (1drop 4times R/E), E/D Prednisolone acetate 1/(1drop 6times R/E) with oral tab Ciprofloxacin 500mg and Chymoral forte twice daily. On the 7th day after taking proper consent pt was put for surgical excision under LA with no touch technique and histopathological exam of the biopsy of conjunctival specimen sent. Previous medicines continued. On 13th day histopathology report revealed the case to be of Squamous Cell Carcinoma. On 17th day the patient discharged with E/D Cyclosporine (1drop 3times R/E) advising to follow up on 1, 3, 6 monthly intervals. But the pt returned on 29th day at eye opd before scheduled date having two more growth nearby the excized one. He was then referred to higher center for further management.

##### 2. Orbital Cavernous Hemangioma with frozen eye in a juvenile case

Dr. Abhishikta Chakraborty

A 17 year old female presented with Abnormal protrusion of left eye for 1 month, abnormal drooping of left upper eyelid & restriction of left eye movement for 1 week.

BCVA was 6/6, N6 in R/E & 6/9, N6 in L/E. There was severe ptosis & 24 mm axial proptosis of the L/E(Leudde's) . No change in size with valsalva maneuver, coughing, straining. Non- compressible, non-pulsatile, non-transilluminant. EOM is markedly reduced in all cardinal directions in the L/E( Frozen eye). CEMRI - brain& orbit L/E found a extraconal- intraconal mass with EOM encasement progressing towards the superior orbital fissure with no intracranial extension.

Patient was treated conservatively with oral steroids, and surgical excision of the tumor was done by lateral orbitotomy. Biopsy was sent & HPE confirmed it to be cavernous hemangioma.

The patient was followed up over 1 month. The Visual acuity improved and no recurrence was observed till 5 months.

### **3. A rare case diagnosis of RADIUS-MAUMENEE SYNDROME**

**Dr. Liza Kuli**

A 9 years old female, presented with chief complaint of diminution of vision (DOV) and protrusion of left eye (L/E) for 3 years. It was insidious in onset, gradually progressive in nature. There was no associated pain, diplopia, restriction of ocular motility etc. On examination, her visual acuity (VA) was 6/6 in right eye (R/E) and hand movement close to face (HMcF) & perception of light positive (PL+) in L/E. There were dilated episcleral vessels, semi dilated pupil, axial proptosis in L/E of 26mm. Intraocular pressure (IOP) was 32mmHg in L/E. On fundoscopy with 90D lens, there was optic disc cupping (CDR - 0.9) with slightly hazy media in L/E. On gonioscopy, angle was found to be open. On MRI brain with orbit with cerebral angiography, there was partial thrombosis of left cavernous sinus and left superior ophthalmic vein causing elevated episcleral venous pressure. Systemic work-up was done, where PT and APTT levels were high. A rare case diagnosis of RADIUS-MAUMENEE SYNDROME was made. Patient was started on Inj. Vit K, Inj. Heparin, Inj. Meropenem & Inj. Linezolid until her coagulation profile was within normal limits. It was followed by Trabeculectomy under general anaesthesia. Post-operatively, anterior chamber was well formed, IOP was maintained in the range of 14-16mmHg. At 3 weeks post- op, there was a well-functioning bleb and proptosis reduced to 23mm.

### **4. Pupillary Block following Nd:YAG Posterior Capsulotomy for Posterior Capsular Opacification – a case report**

**Dr Prateek Nishant,**

A 48-year male patient presented with complaints of right eye pain and redness for the past five days after having undergone Nd:YAG Posterior Capsulotomy elsewhere. The patient had been using Brimonidine + Timolol eye drops twice daily during this interval. On examination, the eye had visual acuity of 6/6, shallow peripheral anterior chamber, intraocular pressure (IOP) of 35mmHg, mid-dilated pupil and IOL in the bag posteriorly. There was nothing blocking the pupil obviously, however, provisional diagnosis of pupillary block was made. Frequent instillation of atropine 1% eye drops brought the IOP down to 25mmHg within three hours. Tablets Acetazolamide 250mg and atropine eye drops thrice daily, and continuation of Brimonidine + Timolol were advised. Five days later, IOP was 41mmHg and hyaloid was found completely blocking the pupil. Intravenous mannitol, Nd:YAG peripheral iridotomy with tapering doses of topical prednisolone and continuation of antiglaucoma therapy brought the IOP down to 22mmHg in a week. The patient again presented 2 months later with

an IOP of 28mmHg and signs of iris atrophy when a second laser iridotomy was made. Antiglaucoma medications were gradually tapered. The patient maintained an IOP of 20mmHg since and there were no changes in optic disc and visual fields for 3 months. Pupillary block is a rare complication of Nd:YAG laser posterior capsulotomy in pseudophakic eyes occurring immediately after the procedure or time after. The differential diagnosis includes inflammatory IOP spikes and aqueous misdirection syndrome. Medical management, timely laser iridotomy and consistent follow-up helped to avoid vision-threatening complications in the index case.

#### **5. Ophthalmic Artery Occlusion in a case of Dural Arteriovenous Fistula with Left Ophthalmic Artery Aneurysm** **Dr Prateek Nishant,**

A 66 year old uncontrolled hypertensive male with a history of sudden loss of consciousness 8 months ago presented to our tertiary hospital and was diagnosed as having a chronic left frontal lobar hematoma 2 months back on magnetic resonance arteriogram. Cerebral digital subtraction angiography showed anterior cranial fossa dural arteriovenous fistula (AVF) supplied by branches of both ophthalmic arteries with fine feeders from both external carotid arteries, and a left ophthalmic artery aneurysm. The AVF had a single draining vein which joined the cortical veins. Endovascular glue embolization and aneurysm coiling was done through femoral artery approach. The patient experienced profound loss of vision of left eye (LE) on awakening from the procedure. On ocular examination, corrected visual acuity in the right eye (RE) was 6/12 whereas in LE, he could only perceive light with inaccurate projection of rays. LE showed a relative afferent pupillary defect. Intraocular pressure was normal. Mydriatic fundus examination LE showed pallor and edema in the peripapillary area extending to posterior pole suggestive of ophthalmic artery occlusion secondary to coiled left ophthalmic artery aneurysm. Ophthalmic artery aneurysms account for 0.5%-11% of all intracerebral aneurysms. They are usually asymptomatic and detected incidentally, but can present with ophthalmoplegia and total blindness if they rupture. An ophthalmic artery aneurysm with dural AVF has been rarely reported in literature previously. In the index case, the coiling of the aneurysm was undertaken as a trade-off for saving the life of the patient with explained prognosis for vision.

#### **6. Is Acute Zonal Occult Outer Retinopathy (AZOOR)- an Inflammatory Choriocapillaropathy: Role of multimodal Imaging** **Dr. Gazal Patnaik**

**Introduction-** Acute zonal occult outer retinopathy (AZOOR) is a clinical entity characterised by acute loss of outer retinal function with minimal or no visible fundal changes, associated with visual field loss, characteristic optical coherence tomography (OCT), Fundus autofluorescence (FAF) and electroretinogram (ERG) abnormalities. There are over 100 cases worldwide, mainly centring on Caucasians. Knowledge is limited to few studies and isolated case reports in Asians. We evaluated the clinical profile of patients with AZOOR in south India.

**Method –** An observational case series of six patients with clinical features and multimodal retinal imaging suggestive of AZOOR was carried out over a period of one year presenting to a tertiary eye care

referring center in south India. We analysed the visual potential and correlated with different multimodal imaging.

**Results** – Fundus is usually unremarkable, with some showing a faint intraretinal perifoveal ring. FAF showed typical trizonal pattern of involvement around the fovea. ERG showed a reduced scotopic as well as photopic response. OCT also showed a trizonal involvement with loss of ellipsoid zone and the cone outer segment tip (COST) line. Five out of six patients had good visual potential. Only one patient had poor visual prognosis which was correlated with greater retinal pigmentary changes at presentation.

**Conclusion** – Indian patients tends to have a better visual prognosis as compared to other subcontinents provided appropriate and timely intervention is made. Multimodal imaging plays a pivotal role in making the diagnosis. We present the first largest series in South India.

#### **7. Painful Ophthalmoplegia of the left eye: A case of Tolosa Hunt Syndrome**

**Dr Neha Verma**

A 47 year old female presented with severe headache and left sided periorbital pain for three weeks, drooping of the left upper eyelid with limitation of eye movement for one week. On examination - left side complete ptosis with restriction of movement in all gazes and hypoaesthesia over left side of face was present. Her BCVA was 6/24 left eye and pupil was round regular reacting to light. MRI showed enhancing soft tissue softening over left cavernous sinus anteriorly extending into orbital apex without any filling defect in cavernous sinus or dilated SOV. After diagnostic work up and excluding all other possibilities diagnosis of TOLOSA HUNT SYNDROME was made. Injection METHYL PREDNISOLONE 1 gm i.v for 3 days was given following which patient showed marked improvement in symptoms and signs. Steroid was then continued at a dose of 1mg/kg body weight and tapered over next 6 weeks. On 2 weeks follow up her BCVA was 6/6 with no ptosis and almost normal ocular movements.

#### **8. CHRONIC PROGRESSIVE EXTERNAL OPHTHALMOPLÉGIA ---- A DIAGNOSTIC DILEMMA.**

**Dr Govinda Das**

A 68 year old male patient presented with complaints of drooping of upper eyelid and diminution of vision of both eyes for last 1 year which was insidious in onset and progressive in nature. There was no history of trauma & ptosis showed no diurnal variation. He also said that he could not move his eyes freely as he could do it earlier. He gave no history of diplopia & any other muscular weakness. On examination his vision was HMCF in both the eyes. Partial restriction of eye movement noticed in all gazes. Pupil were round, regular in shape & reacting to light. Fundus and USG B Scan reveals normal finding other than lens showing cataractous changes. Bedside Neostigmine test & Ice pack test was negative. Lab studies showed normal blood count, serum electrolyte & normal thyroid & liver functions. Study of serum acetylcholine receptor antibody was negative. MRI brain & orbit reveals cerebral & cerebellar atrophic changes. After doing all the diagnostic workup & excluding all differential diagnosis, A clinical diagnosis of Chronic progressive external ophthalmoplegia was made.

**Free papers**  
**(6 minutes presentation & 2 minutes discussion)**

**1. HISTOPATHOLOGY, IMMUNOHISTOCHEMISTRY AND MOLECULAR BIOLOGY IN EVISCERATED AND ENUCLEATED SPECIMEN OF END STAGE OCULAR INFLAMMATORY PATHOLOGIES**

**Dr. Gazal Patnaik**

**Objective:** To describe the histopathology (HPE), immunohistochemistry (IHC) and molecular biology correlations in various end stage ocular inflammatory pathologies.

**Methods:** Retrospective chart analysis of 18 eviscerated or enucleated globes secondary to intractable ocular inflammation due to multiple etiologies over a period of 10 years was conducted in a tertiary eye care centre. IHC and molecular biologic study was carried out from the paraffin sections of the eviscerated or enucleated specimen with various stains and molecular markers.

**Results:** In Vogt-Koyanagi-Harada syndrome (1 case) and Sympathetic Ophthalmia (9 cases), predominant T-cell infiltration of choroid was noted. CD3 as well as CD20 positivity was observed in VKH specimen. One case of VKH showed nongranulomatous inflammation with predominant CD 20 positivity, whereas sympathetic ophthalmia globes showed predominant CD 3 positivity. In 3 cases of tubercular (TB) panuveitis, mycobacterial tuberculosis (MTB) genome was detected by nested and real time polymerase chain reaction (PCR). Acid fast bacilli (AFB) was seen within retinal pigment epithelial cells in only 1 case of TB panuveitis. Two eyes of Eales' disease showed chronic non granulomatous inflammation around blood vessels of the retina. IHC showed CD 8 positive T cells. PCR showed mycobacterium tuberculosis (MTB) DNA from the paraffin sections. Nested PCR was positive in 2 cases of Eales' disease. In addition to this, real time PCR was positive in 1 of the Eales' disease. One eye with pars planitis showed acellular tissue with chronic granulomatous inflammation on HPE. IHC showed both CD 3 and CD 20 positivity. HPE in one case of acute retinal necrosis showed chronic non granulomatous inflammation in the retina with occluded retinal blood vessels and herpes virus inclusion bodies, with nested PCR positive for Varicella zoster virus and CD3 positivity on IHC. MTB DNA was found in one case of sclerouveitis

**Conclusion:** Knowledge regarding ocular inflammatory disorders is still evolving. HPE, IHC and molecular analysis of enucleated globes and eviscerated specimens can give an insight to etiopathogenesis of several uveitis, retinal vasculitis and sclerouveitis cases, which in turn can help develop efficient therapies.

**2. Low vision rehabilitation**

**Dr Ashwini kumar**

The burden of low vision is rapidly increasing globally, and more specifically, in the developing world. The study aims to assess various commonly used low visual aids and the final outcome in patients. 36 patients with low vision were examined, investigated and treated by the author in the period between Dec

2018 to April 2019, using a variety of new instruments and rehabilitation techniques. Following this, there was improvement in visual acuity in 32 patients as well as improvement in quality of living where patients were able to undertake several household and profession related tasks and activities. Through this, the author concludes that for low vision patients, following proper diagnosis, and treatment, proper rehabilitation tools and techniques are needed to bring improvement the quality of life.

### **3. The role of monitoring Compliance, Adherence and Persistence in achieving target IOP among glaucoma patients** **Dr Chengchira A Sangma**

A pilot study was conducted by the author among established glaucoma patients to assess the adherence to therapy, compliance to follow up and the method used to apply the eyedrops at home in order to understand the level of knowledge of the patients towards the disease process and the awareness of maintaining therapy and regular visits. 340 patients aged 9 to 86 years on antiglaucoma medications ranging from 1 month to 3 years duration were randomly interviewed and asked to demonstrate the manner of eye drop application. 273 (80.2%) were regular in clinical reviews but only 212(62%) were compliant with the medications majority of those on monotherapy. Significant decline in compliance were noted at 1 year follow up of patients on multiple drops. More than 57 % (197) were seen to be applying the eyedrops incorrectly. The results obtained were important in identifying factors influencing compliance and to develop interventions that reinforce patient's attitude above the perceived level for effective management in prevention of blindness due to disease progression.

### **4. Clinical Outcomes of Flow – chart based Treatment Algorithms of Submacular Hemorrhage** **Dr.Kshitiz Kumar**

Introduction: Sub macular hemorrhage (SMH) is one of the most severe complications affecting macula due to various retinal pathologies of which nAMD is the leading cause. Aim of the study was to compare the anatomical and functional outcomes of practically selected treatment modalities depending on the *hemorrhage size & duration* in patients complicated by SMH. Methods: Retrospective, interventional case series. Results: Twenty two eyes with submacular haemorrhage were analyzed. Mean age was 60.8 years of 63% female patients. PCV(13 eyes) followed by CNVM(3) & trauma(3) were the most common etiology. 14 patients had small size(1-4DD)SMH and 6 patients had large size (>5DD) SMH. Pneumatic displacement (PD) with intravitreal gas [100% (C3F8)] & intravitreal ranibizumab (IVR) was used in 11 patients, PD with recombinant tissue plasminogen activator (r-tpa) was used in 7 eyes and Vitrectomy with subretinal cocktail mixture (r-tpa+IVR+air) was used in 4 eyes. BCVA improved from 1.06 logMAR to 0.6 logMAR. 77%(17) eyes achieved complete displacement of SMH. >2 line improvement in vision happened in 16/22 patients. Conclusion: This study demonstrated that favourable outcome can be expected through appropriate treatment strategy for SMH.

### **5. Treatment of ROP in Neonatal Intensive Care Unit - a prospective study** **Dr Nilutpal Borah**

ROP is an active, time-bound disease which develops after birth, affecting infants born four or more weeks preterm of low birth weight and have received intensive neonatal care.. Although ROP stage 1 and 2 sometimes resolves by itself, Stage 3 and 4 ROP are a leading cause of childhood blindness.

**Aim:** a prospective study was done of 6 private general hospitals to evaluate the affectivity of doing ROP treatment in the NICU with intravitreal injection(I-vit) and laser treatment.

**Methods:** Period of study was from January 2008 to March, 2022. The procedures were done in the NICU. In all the operations a senior NICU sister and a neonatologist were present. Laser (intense continuous white burns) and I-vit were done under IV midazolam and also topical pro-paracaine eye drop was used. I-vit bevacizumab or ranibizumab were given 1 mm posterior to the limbus(0.01-0.02 ml). Laser to avascular retina was done 1-2 weeks after I-vit and completed in 1 sitting in 98 babies and 2 sitting in 12 babies. Pre- and post-operative moxifloxacin antibiotic eye drop( 4 times X 5 days) and betadine solutions (5%) were used. Follow up was done after 4, 7 and 30 days.

**Results:** Total 110 preterm babies with stage 3 and 4 ROP were treated. Age of the babies during treatment was 31-39 weeks. Birth weight: 760 -1950 gm. Total 110 preterm, LBW babies(220 eyes) were treated with Green laser (Zeiss visulas 532 s)-66 eyes, Laser+I-vit bevacizumab-90 eyes, Laser+I-vit ranibizumab-64 eyes. Intraoperative, postoperative complications- apnoea in 85 babies, cardiac arrest in 2 babies, sub-conjunctival haemorrhage 95 babies(190 eyes),lid swelling in 71 babies.

**Conclusion:** treatment(early detection followed by urgent I-vit and laser) of sight threatening ROP in the NICU is effective and life saving. In the NICU in any emergency life saving interventions can be dealt promptly. Severe ocular complications like endophthalmitis can be avoided with proper pre and post operative care. Effective in preserving the sight of the preterm LBW babies with ROP.

#### **6. Cross-Sectional Study to describe the Severity, Biochemical associations and Final Outcomes of COVID associated Rhino- Orbital-Cerebral Mucormycosis (ROCM) in a Tertiary Hospital of East India Dr Sony Sinha**

**Introduction:** Second wave of COVID-19 pandemic triggered a Mucormycosis epidemic in India. Diabetes mellitus and dysregulated immune response were contributors and ROCM was the commonest presentation. It is however, unknown whether biochemical parameters at presentation correlate with stage of ROCM or final outcome in terms of vision or mortality.

**Methods:** We present a retrospective hospital-based study of in-patients of Mucormycosis Ward from 1<sup>st</sup> June to 31<sup>st</sup> August 2021 with the objective of evaluating the association between severity of infection and serum levels of HbA1c, ferritin, IL-6, CRP and D-dimer levels at presentation and outcome.

**Results:** There were 47 cases having mean age  $48.79 \pm 10.87$  years (range 25-69 years) with male: female ratio 2.62:1; 89.36% had pre-existing diabetes and 10.64% had steroid induced hyperglycemia. Mean HbA1c amongst diabetics was  $9.71 \pm 2.09$  (range 6.6-15.2). HbA1c and serum CRP showed increase over subsequent stages which was not statistically significant ( $p = 0.3135$ ). IL-6 values for all stages were equivalent ( $p=0.97011$ ). Only serum Ferritin levels show a statistically significant increasing trend over stages ( $p=0.041$ ). D-dimer was significantly lower ( $572.67 \pm 249.56$ ,  $p=0.02444$ ) in patients who

survived while CRP levels were significantly lower in patients who had final visual acuity better than PL only ( $p=0.032489$ ).

**Conclusions:** Uncontrolled diabetes mellitus is a significant association of ROCM. Serum ferritin levels at presentation best correlate with extent of the disease, CRP levels are best to prognosticate cases that will have sufficient visual acuity to carry on activities of daily living while D-dimer levels are best associated with survival.

**7. To calculate prevalence of Body Dysmorphic Syndrome (BDS) in patients coming for Blepharoplasty surgery**

**Dr Tojum Gongo**

**Introduction:** Body dysmorphic disorder is a mental health condition in which one can't stop thinking about one or more perceived defects or flaws in appearance. Desire to change the appearance leads to visit to cosmetic surgeon or an ophthalmologist for blepharoplasty. They ought to visit psychiatric clinic rather. Hence, the BDS diagnosis can be missed.

**Aim:** To calculate prevalence of Body Dysmorphic Syndrome (BDS) in patients coming for Blepharoplasty surgery and to find any Age, Gender, Educational qualification, Socio economic or Tribal/Ethnic variation in patients with Body Dysmorphic Syndrome

**Material and Methods:** This was a Prospective study and observational hospital based study conducted on 36 patients attending Department of Ophthalmology, TRIHMS, Naharlagun, Arunachal Pradesh, who came for blepharoplasty operation.

**Result:** 95.8 % of patients were female. Out of total diagnosed patients, 58.34% had some grades of Body Dysmorphic Syndrome. Percentage of grades of BDS patients were: Sub clinical - 71.43 %, Mild-moderate-21.43 % and Severe-7.14 %. The age groups with 15-24 years and 25-34 years had maximum prevalence each with 35.71 %. Not surprisingly, 85.72 % of patients were of native population.

**Conclusions:** It is not uncommon to find patients suffering from BDS who come for blepharoplasty. Proper history taking and Body Dysmorphic Disorder Questionnaire (BDDQ) can help in identifying the patients with BDS for further management by the psychiatrist. Blepharoplasty might be ineffective in reducing symptom severity and improving outcome for those patients with BDS.

**8. Use of autologous serum eye drops for ocular surface disorders - A clinical study**

**Dr Anjani Agarwalla**

**Aim:** To evaluate the efficacy of autologous serum eye drops in ocular surface disorders.

**Material and Methods:** 22 eyes who had ocular surface disorders causing dry eye were started with autologous serum eye drops for 1 month.

**Results:** 12 eyes (8 males, 4 females) showed marked improvement whereas 10 eyes (6 males, 4 females) showed mild improvement.

**Conclusion:** Autologous serum therapy is beneficial in ocular surface disorders and helps in improvement of dry eye which is caused by it.

**9. To estimate total protein concentration, types of proteins in aqueous humour and**

**Dr Tojum Gongo**



**the correlation with myopic patients.**

**Introduction:** myopia is the most common eye disease in the world in with substantial social, educational and economic impact. Some studies have shown changes in aqueous humour proteins in myopic patients.

**Aim:** To estimate total protein concentration, types of proteins in aqueous humour and the correlation with myopic patients.

**Material and Methods:** This is a Prospective study conducted on 36 eyes of 36 patients attending Department of Ophthalmology, TRIHMS, Naharlagun, Arunachal Pradesh, who were undergoing cataract operation. Group A served as a control group with 22 eyes of non myopic patients. Group B consisted of 14 eyes of 14 myopic patients having axial length more than 26mm.

Aqueous humour collected from both the groups during cataract surgery was sent for Sodium dodecylsulfate polyacrylamide gel electrophoresis ( SDS-PAGE).

**Result:** Significant difference in relative bands width (%) in the gel patterns in myopic and non myopic patient was seen. Myopic patients had higher magnitude of protein expressions /bands in molecular weights being 55kDa (Transthyretin), 69kDa ( Albumin) and 110kDa ( Vitamin-D binding protein) than non-myopic patients. In non myopic patients ,70-90 kDa (Heat shock Protein) were very highly expressed than myopic patients.

**Conclusions:** Aqueous humour proteins were estimated to be different between myopic and non myopic patients significantly. These proteins can be candidates for broadening of our existing knowledge of the pathophysiological characteristics of myopia. They may help in early diagnosis and monitoring of the myopic patients can be done. They may also help in deeper understanding of mechanism which cause axial elongation in myopia.

**Key words:** aqueous humor proteins, myopia, SDS-PAGE

#### **10. A study of Macular Choroidal Thickness In Children Measured by Swept-source OCT Dr Nilutpal Borah**

**Aim:** To measure the thickness of the sub-macular choroid and its associations in healthy childrens by Swept source optical coherence tomography.

**Methods:** study of 30 childrens (60 eyes) who have attended an eye clinic in North-Eastern India. Period of study: July 2021 to June 2022. Inclusion criteria: visual acuity 6/6 in both eyes, age 6-12 years, no associated systemic disease. Compared with eyes of 15 healthy adults (30 eyes) of age between 30 to 62 years. Ocular examinations included visual acuity, cycloplegic refraction and SS-OCT(enhanced depth imaging mode) for measurement of choroidal thickness in the macula. SS-OCT was performed in both eyes.

**Results:** The study included 30 childrens (12 girls,18 boys) with a mean age of 11.2 years (6-12 years). Mean choroidal thickness was 310µm in the sub-foveal region (174-501 µm). Mean age of adults 51.5 years(30-62 years). Mean choroidal thickness was 231µm in adults (172-344 µm). In the children group sub-foveal choroidal thickness was thicker than those in adult group( $p < 0.05$ ). Age, refractive error and early chorioretinal disease correlated with subfoveal choroidal thickness.

**Conclusions:** sub-macular choroidal thickness in children were significantly greater than in adults. The paediatric sub-macular choroid become thin with increasing age, axial length, refractive error and paediatric retinal/chorioretinal disease.

**11. A search to identify the etiology of primary acquired NLDO: Route of source!      Dr. Jayanta K Das**  
**Nasal or Ocular**

**Introduction:** There are two schools of thought regarding the spread of infection leading to NLDO and chronic dacryocystitis.

One is due to infection from the conjunctiva (antegrade spread) and the other is from the nasal cavity (retrograde spread)

**Purpose:** We aim to identify the most common route of the spread of infection in cases of chronic dacryocystitis along with the spectrum of bacteriology.

**Methods:** A prospective study was conducted between Jan 2015 to Dec 2021.

All types of chronic dacryocystitis irrespective of laterality, gender and age were included. The materials were collected from three areas with a sterile cotton tip applicator and sent for culture to the microbiology laboratory. The specimens were processed within 10-15 minutes of their collection.

**Results:** Growths were observed in 228(76%) in the conjunctiva, 268(89.3%) in the lacrimal sac, and 272(90.7%) in the nasal mucosa.

The 77.3% of the overall microorganisms cultured were gram-positive bacteria, with a predominance of staphylococcus species in the conjunctiva and lacrimal sac with bacillus species group in the nasal mucosa. The common association of organisms between lacrimal sac content and the conjunctival sac was 52.3% and between the lacrimal sac and nasal mucosa was 33.7% of cases.

**Conclusion:** This current study contributes to the knowledge of organisms and sensitivity, also the source of the spread of infection. Statistically significant high association of common organism between lacrimal sac content and conjunctival sac indicate that antegrade infection plays a crucial role in chronic dacryocystitis.

**12. A comparative study on the efficacy of topical Voriconazole and topical Natamycin      Dr. Dimple Deori**  
**on Mycotic Corneal Ulcer; which to choose - Natamycin or Voriconazole???**

Fungal keratitis or fungal corneal ulcer is considered to be one of the major causes of ocular morbidity in developing countries like India. Fungal keratitis is notoriously challenging to diagnosis and difficult to treat. In the recent years, considerable advancement in diagnosis and treatment has been occurred. In this study, we will discuss about the efficacy of 1%. Voriconazole and 5%. Natamycin in the treatment of fungal corneal ulcer.

**Purpose:** To compare the efficacy of topical 1% Voriconazole Versus 5% Natamycin in the treatment of fungal corneal ulcer.

**Materials and Methods—** It was a randomized, prospective, comparative, experimental study. The study sample is 40, selected according to inclusion and exclusion criteria. The study population is divided into two groups (group A-Voriconazole, group B-Natamycin) and followed subsequently. Data collected, analyzed and tabulated statistically.

**Results—**Topical Voriconazole is found better against fungal corneal ulcer than Natamycin but not statistically significant ( $p=0.59$ ). The mean healing time is  $25.42 \pm 4.55$  day and  $24.92 \pm 3.99$  days respectively.

**Conclusion—**The study concluded that, it had male predominance, younger people, mostly agricultural workers. Both the drug found effective in treating fungal corneal ulcer but Voriconazole was found slightly better in our north-eastern parts of India.

**13. Modified wheeler operation most time honored procedure for surgical correction of senile entropion Dr Kali Saha**

Entropion, inward turning of eye lids, not a uncommon entity. Mainly congenital, cicatricial, senile, involutional, spastic, mechanical varieties, most common is senile entropion affecting elderly people involving mainly lower lid. Though different approach, but from cosmetic and permanent intervention is still time honoured modified wheeler operation.