



# Conjoint Ophthalmology Scientific Conference 2020

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## Malaysian Journal of Ophthalmology

A stylized eye icon in blue and white, positioned to the right of the journal title.

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# Table of contents

<b>COSC 2020 Editorial Board</b>	<b>2</b>
<b>Conjoint Ophthalmology Scientific Conference: remembering the past and embracing the future</b>	<b>4</b>
<b>Conjoint Ophthalmology Scientific Conference Timeline</b>	<b>6</b>
<b>Oral Abstract List</b>	<b>7</b>
<b>Poster Abstract List</b>	<b>8</b>
<b>Oral Abstracts</b>	<b>17</b>
<b>Poster Abstracts</b>	<b>34</b>

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# COSC 2020 Editorial Board



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# Conjoint Ophthalmology Scientific Conference: remembering the past and embracing the future

Malaysia's first postgraduate ophthalmology training program was founded by the late Dato' Dr Mohd Nor Marhakim, which launched in Universiti Kebangsaan Malaysia (UKM) in 1981. Continuing his legacy, the main aim of this annual scientific conference is to provide postgraduate trainees in ophthalmology with a platform to present their research outcomes, update their knowledge with the latest advances, and engage in networking. The conference was the brainchild of Professor Dr Liza Sharmini Ahmad Tajudin under the headship of Professor Dr Wan Hazabbah Wan Hitam and guidance from Dr Elias Hussein.

Upon the success of initiating the Universiti Sains Malaysia (USM) Ophthalmology Symposium in 2003 and a series of other conferences, the idea of holding a combined conference in the spirit of "togetherness" was explored. Universiti Malaya (UM) and UKM were invited to host the conference. In 2006, UM hosted the conference with the theme of "Ocular pharmacology and therapeutics". It was named the UM-UKM-USM Ophthalmology Symposium. Since then, the three universities have taken turns hosting this annual conference, which has evolved in terms of academic value and ability to pull bigger crowds throughout the years.

The Mohd Nor Marhakim Keynote Address was introduced by Associate Professor Dr Bakiah Shaharuddin in 2005 during the 3rd USM Ophthalmology Symposium and has been continued in UM-UKM-USM Ophthalmology Symposium.

In 2011, the conference reached another important milestone when the Ministry of Health was invited to co-host the event, then renamed as Conjoint Ophthalmology Scientific Conference (COSC). During this conference, the Dato' Dr Mohd Nor Marhakim Award was introduced to honor individuals who have contributed significantly to postgraduate ophthalmology training in Malaysia; its first recipient was Professor Dr Ropilah Abdul Rahman. The baton was passed to the Ministry of Health to host the 2012 conference. Since then, COSC has held eight highly successful events, attracting hundreds of delegates from all over Malaysia. Currently, it is already recognized as one of the highlights of the year in Malaysian ophthalmology.

In 2020, the 10th COSC was postponed due to the COVID-19 pandemic and conducted as the first virtual meeting in September 2021. It was a huge success, attracting a sizeable online audience. It also marked another first, as the conference

abstracts have been published in the first supplement of the Malaysian Journal of Ophthalmology.

Throughout this time and overcoming many challenges, COSC has grown in size and impact. It will no doubt continue growing beyond its humble beginnings. Now consolidated in Malaysia, our next aim is to gain recognition regionally and eventually internationally.

# Conjoint Ophthalmology Scientific Conference Timeline

## 2005

Initial idea and discussions.

Mohd Noor Marhakim Lecture is adopted and introduced for the 3<sup>rd</sup> Universiti Sains Malaysia Ophthalmology Symposium.

## 2006

Universiti Malaya, Universiti Kebangsaan Malaysia, and Universiti Sains Malaysia hold the Ocular Pharmacology meeting on July 15–18.

## 2011

The Ministry of Health joins the 1<sup>st</sup> Annual Ophthalmology Scientific Conference held by Universiti Sains Malaysia, Universiti Kebangsaan Malaysia, and Universiti Malaya.

The Mohd Noor Marhakim Award is introduced and awarded to its first recipient, Professor Dr Ropilah Abdul Rahman.

## 2013

Named as Conjoint Ophthalmology Scientific Conference (COSC).

## 2017

Intervarsity quiz competition is introduced.

## 2018

Photo contest and video competition are introduced.

## 2021

First virtual conference is held due to the COVID-19 pandemic.

# Oral Abstract List

Poster Number	Title	Presenter
COSCAB010	Intracranial pressure, translaminar pressure gradient and factors affecting them in high tension glaucoma	Cheng Teck Chee
COSCAB0015	Evaluation of Interleukin-6 In Tears and Serum and Its Associated Factors in Age Related Macular Degeneration Patients	Abdul Hadi Rosli
COSCAB058	The Safety and Functional Outcome of Iris Claw Intraocular Lens	Leow Zi Hao
COSCAB059	Reduction of Cataract Surgery Cancellation Rate in Hospital Teluk Intan: A Quality Assurance Project	Chiun Pei Rong
COSCAB073	The Effect of Combined Phacoemulsification and Endo-cyclophotocoagulation on Intraocular Pressure Fluctuation in patients with Primary Open Angle Glaucoma	Amirah Mohammad Razali
COSCAB081	Visual Acuity Outcome following Cataract Surgery: Hospital Sultanah Nur Zahirah versus Terengganu Outreach Based Program	Mohd Norfizry Nordin
COSCAB112	Clinical audit of vision test in ophthalmology clinic Hospital Bukit Mertajam	Yeoh Weang Sim
COSCAB114	A novel technique in preventing suction loss in Femto- LASIK and ReLEx SMILE	Salman Bin Morhalim
COSCAB153	Laser Refractive Screening Outcomes at a Public Tertiary Centre in Malaysia	Bilal Khairidzan
COSCAB160	The impact of strabismus on health-related quality of life assessment in Malaysian children with intermittent exotropia and their parents	Nur Hafiza Binti Mokhtar

# Poster Abstract List

Poster Number	Title	Presenter
COSCAB002	Postoperative Pseudophakic Pupillary Block Glaucoma Mimicking Endophthalmitis	Sarah Sathyapriya AP Tamilarsan
COSCAB004	An unusual presentation of spindle cell haemangioma of nasal cavity with extradural extension	Syarifah Nur Humaira Bt Syed Mohd Khomsah
COSCAB005	The incidental diagnosis of Coats' disease: a case report	Low Zhen Ning
COSCAB007	Loss of Vision in A Patient with Cavernous Sinus Thrombosis Secondary to Odontogenic Infection	Emily Ng Ming Choo
COSCAB008	Sudden scotoma: a tell-tale sign of leukaemia	Yeap Zhi Ling
COSCAB013	Metal Bypass: A Rare Case of Orbital Injury	Dalal Salaheldin Hassan Mahgoub
COSCAB017	Ocular sequelae in acute right maxillary sinusitis with provoked left transverse sinus thrombosis	Nurhayati binti Azman
COSCAB021	"Nodular" keratitis with different pathologies	Kuan Huey Chuin
COSCAB022	Evaluation of the vision-related quality of life using National Eye Institute-Refractive Error Quality of Life Instrument-42 (NEI-RQL-42) in undergraduate students with myopia	Lim Thiam Hou
COSCAB025	Bilateral neuroretinitis in a healthy girl with melioidosis infection	Wan Mohd Redzuan Wan Hassan
COSCAB026	Strabismus, more than misalignment of the eyes: a case series	Timothy Liew Khai Wing
COSCAB027	Full moon in the fundus: A rare case of subretinal abscess secondary to Staphylococcus Aureus bacteraemia	Elaine Gan Ju Yen
COSCAB028	Acute Postoperative Citrobacter Panophthalmitis: A Case Report	Ngio Yi Chen
COSCAB029	Self-Inflicted Orbitocranial Penetrating Injury	Farhana Binti Ishak

Poster Number	Title	Presenter
COS CAB030	Spectrum of septic cavernous sinus thrombosis in Hospital Sultanah Nur Zahirah: a review of 4 cases	Wan Nurul Hanan Binti W Ahmad
COS CAB031	Clinical presentations of ocular surface squamous neoplasia	Gayathri Seluarize
COS CAB032	Safety and functional outcome of angle support intraocular lens (ASIO L) in Hospital Sultanah Nur Zahirah (HSNZ) Terengganu: a ten-year review	Siti Najibah Zaidah Bt Mohd Yazid
COS CAB033	Risk Factors of Aggressive Posterior Retinopathy of Prematurity (APROP) in a Heavier Premature Infant: A Case Report	Siti Noor Atikah Bt Abd Rahman
COS CAB034	Haemorrhagic retinitis as a rare presentation of ocular toxoplasmosis	Shyamala Silverajah
COS CAB036	Purtscher's Retinopathy: a rare case presentation following trauma with severe chest compression	Nurhafizatul Akma Binti Hasan
COS CAB037	The prevalence of astigmatism among 7-year-old school children in Gua Musang district: post Covid-19 home confinement	Syarmilla Che Shamsudin
COS CAB038	Review of Endophthalmitis Cases in Taiping Hospital	James Lim Wen Siang
COS CAB039	A Case Series of Orbital Cellulitis with Different Causative Organism	Suhaila Binti Ibrahim
COS CAB040	Incidence of infectious endophthalmitis in tertiary centre in Pahang Barat and Pahang Tengah: a 2.5-year retrospective audit	Azzahra Binti Muhamad Asri
COS CAB041	Diagnostic Challenge in A Case of Diffuse Large B-cell Lymphoma Masquerading as Orbital Cellulitis with Literature Review	Lim Yi Wen
COS CAB042	Choroidal melanoma: when it is more than a mole!	Nur Syarafina Binti Abdul Malek
COS CAB043	Outcomes of Sutureless Retropupillary Iris-Claw Lens Implantation in Hospital Sultanah Aminah Johor Bharu Malaysia	Daniel Phang Sen Kai

Poster Number	Title	Presenter
COSCAB044	A tiny visitor with a stormy presence	Nurul Farhana Mustafa
COSCAB046	Impact of Screen Time on Refractive Status in Children Aged 3 to 6 Years	Tan Shu Yu
COSCAB047	A rare case presentation of tubercular nodular episcleritis	Abdah Adzimah Bt Che Md Noor
COSCAB048	The blinding scratch	Nur Aliah Binti Hassan
COSCAB049	A child with near missed intraorbital marble after an awkward fall	Nur Fatihin Samiyah Binti Mohamad Hisham
COSCAB050	The Malignant Masquerade	Lim Xin Ying
COSCAB051	Sight-threatening diabetic retinopathy and associated risk factors in Hospital Sultanah Nur Zahirah (HSNZ), Terengganu from year 2018 to 2020	Nur Fadilah Azhani
COSCAB052	Surgical Outcomes of Baevaeldt Glaucoma Implant (BGI) in Selayang Hospital	Rafikah Mahadi
COSCAB053	Prevalence of Foreign Body Related Corneal Ulcers in Hospital Sultan Haji Ahmad Shah Temerloh Pahang	Sia Chye Chee
COSCAB054	Epidemiological characteristics, predisposing factors and microbiological profiles of infectious corneal ulcers in Hospital Sultan Haji Ahmad Shah	Ng Zhi Yun
COSCAB057	Headache: Is It That Simple?	Ibtihal Bayaanaah Iskhandar
COSCAB060	An insidious cause of epiphora	Yeap Khy Ching
COSCAB061	Bilateral Optic Disc Swelling Secondary to All-Trans Retinoic Acid (ATRA) Induced Intracranial Hypertension in Leukemic Young Male	Noorshazana Wan Azmy
COSCAB062	Long, Flat, and Closed!	Joseph Jacob Danasamy
COSCAB063	Paediatric Iris Cysts: A Case Series	Sabrina Abu Hassan Asaari
COSCAB064	Compliance of patients with newly diagnosed proliferative diabetic retinopathy (PDR) to pan retina photocoagulation (PRP) and their visual outcome during covid-19 pandemic in year 2020	Muhammad Ashrof Bin Abdullah

Poster Number	Title	Presenter
COS CAB066	Vincristine induced optic neuritis, a diagnosis not to be missed	Lim Chee Min
COS CAB067	A Stitch in Time Saves Nine: Case Series of Central Retinal Artery Occlusion	Nur Izzati Mohd Fadzil
COS CAB069	Solar Retinopathy Revealing Psychiatric Disorder in a Patient with History of Sungazing	Nurnadia Kamaruddin
COS CAB072	The Black Eyebrow	Ng Qi Xiong
COS CAB074	Prevalence and causes of Low Vision and Blindness in Ophthalmology Department, Miri Hospital, Sarawak	Anushia A/P Raman
COS CAB075	A rare case report of Tolosa-Hunt Syndrome in Hospital Selayang	Noor Sarah Khor Binti Muhammad Azmi Khor
COS CAB076	A rare combination of retinal glioneuronal hamartoma with combined hamartoma of retinal and retinal pigmented epithelium (CHRRPE) in the same eye	Leong Ching Yee
COS CAB078	Two Years Audit on Phacomorphic Glaucoma in Hospital Taiping	Zulaikha Binti Abd Rahman
COS CAB079	An unusual cleft that threatens sight	Nurul Hamiza Binti Mohd Rashid
COS CAB080	It Made Me Blind	Subasni Sukumaran
COS CAB082	Transscleral cyclophotocoagulation treatment in neovascular glaucoma: A retrospective review from HTAR, Klang	Cheng Mun Yee
COS CAB084	Demographic and clinical profile of patients with corneal ulcer in Hospital Sultan Ismail Petra (HSIP)	Mohd Asroy Mat Daud
COS CAB085	Granulomatosis with Polyangiitis (GPA) in a middle-aged male with painful red eyes	Tan Chin Ling
COS CAB086	Parinaud's Oculoglandular Syndrome in A Teenager: Biopsy Confirmed Tuberculosis After Failed Sporotrichosis Empirical Treatment.	Jesspreet Kaur A/P Harban Singh
COS CAB087	Bilateral corneal choristoma with atypical presentation	Teo Yen E

Poster Number	Title	Presenter
COS CAB091	The Spark that Caught My Eye	Inderpreet Kaur
COS CAB095	A case report of Branch Retinal Artery Occlusion (BRAO) after COVID-19 vaccination (Comirnaty, Pfizer/ BioNTech)	Tan Qi Xian
COS CAB097	Case Series of Idiopathic Intracranial Hypertension Presented in A Tertiary Eye Center	Siti Farhah 'Adilah Binti Basiron
COS CAB098	Bilateral Optic Perineuritis with Frosted Branch Angiitis secondary to Cytomegalovirus Infection in Immunocompetent Patient	Jazmin Hezleen binti Jamaluddin
COS CAB099	Panuveitis with Optic Nerve Head Involvement	Anis Fateha Binti Mazri
COS CAB100	Peters and Penetrating Keratoplasty	Lim Zhi Yiu Hiang Weang
COS CAB101	Coats disease in teenage girl	Mohd Khairy Bin Zainal Abidin
COS CAB102	Essential Iris Atrophy - the rare variant of Iridocorneal Endothelial Syndrome	Loh Sue Anne
COS CAB103	A case series and review of Parinaud's oculoglandular syndrome associated with Sporotrichosis in Hospital Kuala Lumpur	Deivanai Subbiah
COS CAB107	Paediatric Traumatic Hyphaema Secondary to Toy Projectile: A Case Series	Zulhisham Bin Mohmad
COS CAB109	Neovascular Glaucoma: A retrospective review of 3-Year Experience at a tertiary Hospital in Malaysia	Nuratiqah Binti Zainal Abidin
COS CAB110	A Rare Case of Neuromyelitis Optica Spectrum Disorder with Clinical Ocular Myasthenia Gravis Presentation.	Salmah Binti Mohd Kamal Albakri
COS CAB111	Papilloedema; presenting feature of Systemic Lupus Erythematosus	Shelva Meena A/P Gurusamy
COS CAB113	Exudative Retinal Detachment Mirror of Metastatic Breast Carcinoma	Nur Athirah Adnan
COS CAB115	Lipoma or Lymphoma? A Diagnostic Dilemma	Shiivaa Manjare A/P Birapadian

Poster Number	Title	Presenter
COSCAB116	CW-Chord value in a pre-operative cataract assessment patient using Carl ZEISS IOL Master 700	Nur Syifa Athirah Qistina Binti Alias
COSCAB117	A Case Series of Parinaud's Oculoglandular Syndrome secondary to Sporotrichosis	Kumutha A/P Muthusamy
COSCAB118	Acute angle closure glaucoma secondary to expulsive haemorrhage idiopathic polypoidal choroidal vasculopathy	Angeline Low Sher Lyn
COSCAB120	Left Internuclear Ophthalmoplegia in a Hypertensive Patient	Farhana Nabila Binti Sulaiman
COSCAB122	Endogenous Endophthalmitis in Disseminated Methicillin Sensitive Staphylococcus Aureus (MSSA) Bacteraemia	Noor Amalina Saidi
COSCAB123	Herpes Zoster Optic Neuritis in Human Immunodeficiency Virus Infection	Muhammad Khairuddin Bin Mohd Azman
COSCAB124	Danger in Disguise: The Deceptive Appearance in A Case of White-Eyed Blow Out Fracture	Norfasihah Ahmad Subaker
COSCAB125	Comparison of Keratometry values Between Corneal Topography and Barret Toric Calculator Integrated Keratometry in Cataract Patients	Sahel Akmal bin Che Mohd Hazidi
COSCAB127	Keeping an eye on the heart	Lee Mei Synn
COSCAB128	Suprasellar Tumour Presenting as Multidirectional Nystagmus	Maya Sakthi A/P N Vijayan
COSCAB129	Myelin Oligodendrocyte Glycoprotein (MOG) Antibody in a Young Boy with Bilateral Optic Neuritis	See Woan Shian
COSCAB130	Bilateral Primary Non-Hodgkin's Lymphoma of the Lacrimal Sac	Arjamilah Binti Mohamed Noor
COSCAB131	A rare non-surgical related massive spontaneous suprachoroidal haemorrhage	Nur Atiqah Binti Hasan
COSCAB133	Unusual presentation of self-limiting anterior uveitis following SARS-CoV-2 messenger RNA (mRNA) vaccination	Nur Izzah Husna Binti Saaid @ Zaidun

Poster Number	Title	Presenter
COSCAB134	An Unfortunate Blind Eye	Nurulhuda Md Amin
COSCAB138	Devastating ocular complication of Parry-Romberg syndrome: Phthisis Bulbi	Norazlida Bt Ibrahim
COSCAB139	A glass eyeball	Stephanie Evelyn Fong Mui Ha
COSCAB140	Ocular toxoplasmosis	Tan Chin Ling
COSCAB141	Transient cortical blindness: A rare complication of hepatic encephalopathy (HE) in a paediatric patient	Ain Nasyrah Binti Ahmad Sukari
COSCAB143	Multidrug resistant Pseudomonas keratitis responsive to levofloxacin monotherapy	Nur Suhaila Ahmad
COSCAB144	Magic drug- Dexamethasone in the Treatment of Traumatic Optic Neuropathy	Afiqah Izzati Hamdan
COSCAB145	The outcome of Descemet membrane endothelial keratoplasty (DMEK) with different tamponade material	Muhammad Hafiz As-Shaarani Bin Mohd Amin
COSCAB150	Adult-Onset Craniopharyngioma Complicated with Central Diabetes Insipidus Postoperatively	Chong Su Huan
COSCAB151	A case of Nevus of Ota with advanced open angle glaucoma	Jasmine Binti Abd Rashid
COSCAB152	Orbital Burkitt's lymphoma presented with rapid optic nerve function deterioration: A case report	Muhammad Firdhaus Zainudin
COSCAB154	Hypopyon Uveitis in a healthy young adult with ankylosing spondylitis	Tai Wan Dien
COSCAB155	Unbreakable tuberculosis warrior: Tuberculosis (TB) imitate Cat Scratch Disease (CSD) in Parinaud Oculoglandular Syndrome (POGS)	Sangariswari A/P Ganeson
COSCAB156	Necrotising fasciitis mimicker: A case report of extranodal right orbital NK/T-cell lymphoma with tumour necrosis	Ng Chun Wai
COSCAB157	A rare case of idiopathic bilateral frosted branch angiitis with exudative retinal detachment	Tan Chun Loong

Poster Number	Title	Presenter
COS CAB158	Traumatic Ocular Pencil Lead Injury	Lee Hsin Yi
COS CAB159	A tell-tale sign: Do you panic when you stumble upon a blurry disc?	Chee Shew Fei
COS CAB162	Peripheral Ulcerative Keratitis (PUK) with granulomatous uveitis	Banupriyah A/P M.Elangovan
COS CAB164	Sarcoidosis-associated uveitis- A case series	Michele Tey Shi Ying
COS CAB165	Variation in refraction results in preoperative refractive surgery patient	Muhammad Yusuf Bin Abdurrahman
COS CAB166	iStent Trabecular Micro-Bypass Stent Implantation in a Patient with Posner-Schlossman Syndrome	Khoo Phong Yue
COS CAB168	Combined phacoemulsification and iStent inject implantation in open-angle glaucoma patients.	Nadhirah Binti Ahmad Fauzi
COS CAB169	Management of a case of lacteocruemnesia	Rachel Nge Sing Wei
COS CAB170	Orbital Venous lymphatic Malformation	Muhammad Shazni Afandi Bin Rusli
COS CAB172	Why does my child look sleepy?	Nur Ain Shafiyah Binti Mohd Ghazali
COS CAB174	A Case of Delayed Second Eye Involvement in Acute Retinal Necrosis (ARN)	Chow Kit May
COS CAB175	Population Characteristics of Diabetic Retinopathy Presentation at Hospital Serdang.	Arwinderjit Kaur Walia
COS CAB178	Malignant eyelid tumours in Hospital Kuala Lumpur: a 3-year case series	Nur Hanisah Binti Mohamad Kani
COS CAB179	Incidence, Clinical Profile and Visual Outcome of Intracapsular Cataract Extraction: A Five-Year Analysis in Hospital Melaka, Malaysia	Nur Faizah Binti Harun
COS CAB180	XEN Gel Implant in Secondary Glaucomas	Nur Sakinah Mohamed Hatta
COS CAB182	Acute Bilateral Loss of Vision as Organic Manifestation of Repressed Psychological Stress	Ahmad Fadzil Bin Abdul Hamid

<b>Poster Number</b>	<b>Title</b>	<b>Presenter</b>
COSCAB183	Rare case of paediatric multiple myeloma presented with orbital mass	Saidatun Nazeera Binti Mohamad Fadzil
COSCAB184	A Unique Presentation of Paediatric Orbital Cellulitis	Tan Li Faung
COSCAB185	Profile of Duane retraction syndrome	Nor Aishah Binti A Wahab
COSCAB186	A case of hyphaema in an idiopathic unilateral anterior uveitis	Muhammad Adib Bin Redzuan

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# Oral Abstracts

## COSCAB010

### **INTRACRANIAL PRESSURE, TRANSLAMINAR PRESSURE GRADIENT AND FACTORS AFFECTING THEM IN HIGH TENSION GLAUCOMA**

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#### **Background**

Abnormally high intraocular pressure can be an indicator of abnormal intracranial pressure as the anatomical proximation of eye with the intracranial space indicates potential relation between cerebrospinal fluid pressure and the intracranial pressure. Therefore, this study illustrated the correlation of the intraocular pressure (IOP), intracranial pressure (ICP) and translaminar pressure gradient (TLPG) in patients with high tension glaucoma (HTG) and normal subjects as well as correlations with ocular and systemic parameters.

#### **Methods**

22 patients with newly diagnosed HTG or pre-existing HTG who were not on any anti-glaucoma medications for at least 6 weeks were included. 22 normal subjects were healthy individuals with no ocular comorbidities. All subjects underwent blood pressure, heart rate, body weight, height, ocular examination including best corrected visual acuity (BCVA), IOP and optic nerve head, retinal nerve fibre layer (RFNL) and macula imaging, visual field testing, axial length and central corneal thickness measurements. ICP was calculated using a formula [CSF pressure (mmHg) = (0.44 x Body Mass Index (kg/m<sup>2</sup>) + (0.16 x Diastolic Blood Pressure (mmHg)) - (0.18 x Age (Years)) - 1.91]. TLPG was obtained by subtracting ICP from IOP. Mean IOP, ICP and TLPG were compared using Mann-Whitney test. Spearman's correlation was used to investigate relationship.

## Results

Median ICP was significantly lower in HTG compared to normal subjects [8.19 (6.86-10.28) mmHg vs. 11.31 (8.91-12.36) mmHg, respectively] with p-value of 0.001. Median TLPG was significantly higher in HTG [18.64 (15.27-26.19) mmHg vs. 1.72 (0.27-4.62) mmHg, respectively] with p-value < 0.001. There was no correlation between IOP and ICP, but IOP was correlated with TLPG in both HTG ( $r=0.911$ ,  $p<0.001$ ) and normal groups ( $r=0.758$ ,  $p<0.001$ ). IOP was negatively correlated with age ( $r=-0.504$ ,  $p=0.017$ ) and body mass index ( $r=-0.492$ ,  $p=0.020$ ). ICP was negatively correlated with age ( $r=-0.535$ ,  $p=0.010$ ), BCVA ( $r=-0.437$ ,  $p=0.042$ ) and positively correlated with body weight ( $r=0.465$ ,  $p=0.029$ ). TLPG was negatively correlated to body weight ( $r=-0.446$ ,  $p=0.038$ ), BMI ( $r=-0.601$ ,  $p=0.003$ ) and axial length ( $r=-0.453$ ,  $p=0.034$ ).

## Conclusion

HTG subjects have higher IOP, lower ICP and higher TLPG compared to normal subjects. ICP may play a role in the pathogenesis of glaucoma. Further studies are warranted to investigate the effects of ICP on the glaucoma.

**COS CAB0015****EVALUATION OF INTERLEUKIN-6 IN TEARS AND SERUM AND ITS ASSOCIATED FACTORS IN AGE RELATED MACULAR DEGENERATION PATIENTS**

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**Background**

Interleukin-6 (IL-6) is one of the key regulators of inflammation and pathological process in ophthalmic diseases. The objective of this study was to evaluate the IL-6 in tears and serum in age related macular degeneration (AMD) patients and to determine its associated factors.

**Methods**

This was a comparative cross-sectional study. Patients with early AMD, late AMD and control group who fulfilled the inclusion criteria were recruited into this study. Tears and serum samples were collected. The samples were analysed using commercial Human IL-6 enzyme-linked immunosorbent assay kit to measure IL-6 levels in tears and serum. Only late neovascular AMD (nAMD) was enrolled in this study since there was no late dry AMD available during the study period.

**Results**

A total of 142 patients (56 early AMD, 56 late nAMD and 30 Control group) were recruited in this study. AMD showed significantly higher mean tears IL-6 (21.91 (95%CI: 19.89, 23.93),  $p=0.014$ ) and serum IL-6 (12.01 (95%CI: 10.93, 13.08),  $p=0.004$ ) compared to control group after adjusted with covariates. Only mean serum IL-6

level was significantly high in late nAMD (13.97 (95%CI: 12.43, 15.52),  $p= 0.001$ ) compared to early AMD after adjusted with covariates. There was no significant association found between IL-6 level in tears with duration of AMD, serum level of IL-6, smoking status and AMD status.

## **Conclusion**

IL-6 in tears and serum showed significant elevation among AMD. Therefore, tear samples can be used as non-invasive biomarker for AMD screening.

**COS CAB058****THE SAFETY AND FUNCTIONAL OUTCOME OF IRIS CLAW INTRAOCULAR LENS**

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**Background**

The aim of cataract surgery is to obtain good visual outcome; thus, an intraocular lens (IOL) implantation is always incorporated. In cases when there is insufficient capsular or zonular support, several techniques can be done to correct aphakia, such as angle support anterior chamber IOL (ASAC-IOL), scleral fixated IOL and iris claw IOL implantation. ASAC-IOL causes high incidence of complications and scleral fixated IOL is technically more challenging. Previous studies have established that iris-claw IOL implantation is an effective method for correcting aphakia with several advantages such as easy placement and good visual outcome. To study the safety and functional outcome of iris claw intraocular lens in Hospital Sultanah Nur Zahirah, Terengganu.

**Methods**

This is a retrospective study of patients who underwent iris claw intraocular lens (IOL) implantation in Hospital Sultanah Nur Zahirah from January 2011 to November 2020. Demographic data, clinical and operative findings with latest visual outcome were retrieved from electronic medical records and analysed using SPSS v26.

**Results**

A total of 38 eyes of 38 patients were enrolled and the mean age was  $54.7 \pm 15.9$ . The IOLs were implanted during primary surgery in 3 eyes (7.8%) and as secondary surgery in 35 eyes (92.1%). The mean duration of surgery was  $52.4 \pm 27.3$  minutes. None of the patients had intraoperative complications. There was no secondary high intraocular pressure recorded postoperatively. Four (11.2%) developed postopera-

tive complications which are uveitis (2.8%), endophthalmitis (2.8%), IOL subluxation (2.8%), and macular oedema (2.8%). The mean preoperatively visual acuity was  $0.96 \pm 0.76$  logarithm of minimal angle resolution (logMAR) compared to  $0.36 \pm 0.53$  logMAR at month 6 post-surgery, ( $P < 0.009$ ). Targeted spherical equivalent was  $0.67 \pm 0.76$  and postoperative was  $0.91 \pm 2.64$ , ( $P = 0.54$ ). Most patients had good visual outcome and 83.9% had vision of 0.5 logMAR or better after 3 months, 87.5% at 6 months post-surgery.

## **Conclusion**

In case of inadequate capsular support, iris claw IOL implantation has been found to be safe and effective to provide satisfactory visual outcome. Postoperative complications were treatable with no visual complications.

**COSCAB059****REDUCTION OF CATARACT SURGERY CANCELLATION RATE IN HOSPITAL TELUK INTAN: A QUALITY ASSURANCE PROJECT**

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**Background**

Cataract is a common eye illness worldwide and the prevalence of cataracts is on the rise globally. Postponing elective cases for patient scheduled for surgery is a stressful situation both for patient and surgeon. Many steps and plans have been advocated to reduce the cancellation rate as minimal as possible. This quality assurance (QA) study is done to rectify the reason of case cancellation in Hospital Teluk Intan.

**Methods**

This QA study recruiting 408 patients in pre-interventional phase from January to April 2019 and 1351 patients were involved in post-interventional phase from September 2019 to April 2021. Patients that enrolled in post-interventional phase were divided in 4 cycles of 4-monthly evaluation (468, 282, 355 and 246 patients respectively). Data were collected from cataract surgery census and National Eye Database (NED). Reasons for cancellation were recorded.

**Results**

Pre-interventional data revealed that the common causes of cancellation were uncontrolled diabetes (22.05%), blepharitis (14.71%), uncontrolled hypertension (11.76%) and upper respiratory tract infection (8.82%).

Remedial measures such as counselling sheets were provided to patients to improve patients' awareness. Preoperative cataract clerking sheet, patient counselling checklist and patient calling checklist were created to identify possible issue that may lead to cancellation and manage accordingly. More stringent criteria were

applied for patients' selection. Patients with uncontrolled systemic illness were co-managed with physicians prior to listing. Scheduled patients will be called one week before surgery to confirm attendance and fitness for surgery.

Post-interventional data showed that cancellation rate reduces from 17.85% (pre-interventional phase) to 11.35%, 9.79%, 7.97% and 4.98% respectively (first, second, third and fourth post-interventional cycle).

## **Conclusion**

Cancellation of cataract surgery results in waste of resources and unnecessary distress to patients and eye staffs. Proper preoperative evaluation, systemic optimization and patient counselling are required to prevent cancellation of cataract surgery.

**COS CAB073****THE EFFECT OF COMBINED PHACOEMULSIFICATION AND ENDO-CYCLOPHOTOCOAGULATION ON INTRAOCULAR PRESSURE FLUCTUATION IN PATIENTS WITH PRIMARY OPEN ANGLE GLAUCOMA**

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**Background**

Glaucoma is characterized by progressive optic nerve damage, often associated with increased intraocular pressure (IOP). As cataract occurs frequently in patients with glaucoma, combining phacoemulsification and endoscopic cyclophotocoagulation (phaco-ECP) has been gaining attention and becoming an emerging procedure in treating glaucoma. This study is carried out to assess the effect of phaco-ECP on IOP fluctuation as assessed by the water drinking test (WDT) in primary open angle glaucoma (POAG).

**Methods**

This is a prospective observational study at a tertiary referral centre. POAG patients on topical antiglaucoma whom planned for phaco-ECP were recruited. WDT was performed before surgery and 6 weeks postoperatively by drinking 10ml/kg of water in 5 minutes followed by serial IOP measurements at 15, 30, 45 and 60 minutes. Mean IOP, IOP fluctuation (difference between highest and lowest IOP), IOP reduction, and factors affecting IOP fluctuation were analysed.

## Results

Twenty eyes from 17 patients were included. Baseline IOP was similar before ( $14.7 \pm 2.7$ mmHg) and after ( $14.8 \pm 3.4$ mmHg,  $p=0.90$ ) surgery. There was no significant difference in mean IOP ( $17.6 \pm 3.4$  mmHg vs  $19.3 \pm 4.7$ mmHg pre and postoperative respectively,  $p=0.26$ ) and also peak IOP ( $19.37 \pm 3.74$ mmHg vs  $21.23 \pm 5.29$ mmHg,  $p=0.25$ ). There was significant reduction in IOP-lowering medications ( $2.2 \pm 1.15$  vs  $0.35 \pm 0.93$ ,  $p<0.001$ ) postoperatively. IOP fluctuation was significantly greater ( $6.4 \pm 3.2$ mmHg vs  $4.6 \pm 2.1$ mmHg,  $p=0.015$ ) with more eyes having significant IOP fluctuation of  $\geq 6$ mmHg [11 eyes (55%) vs 4 eyes (20%),  $p<0.001$ ] postoperatively. Multiple regression analysis found that preoperative IOP fluctuation (regression coefficient,  $\beta=0.88$ ,  $p=0.005$ ) and eyes with more postoperative antiglaucoma medications ( $\beta=2.00$ ,  $p=0.006$ ) increases postoperative IOP fluctuation.

## Conclusion

Reducing aqueous production with phaco-ECP does not eliminate IOP fluctuation in POAG patients. The increase in postoperative IOP fluctuation suggests increased outflow resistance after phaco-ECP.

**COS CAB081****VISUAL ACUITY OUTCOME FOLLOWING CATARACT SURGERY: HOSPITAL SULTANAH NUR ZAHIRAH VERSUS TERENGGANU OUTREACH BASED PROGRAM**

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**Background**

The volume of cataract cases has increased dramatically over years. Similarly, the proportion of cataract surgery has to double up to clear the numbers. Nevertheless, good visual acuity outcome is the main aim in all scheduled cases. In this study, the primary objective is to compare visual acuity outcome following cataract surgery between tertiary hospital and outreach-based program. Secondary objective is to identify significant predictive factor for poor refractive outcome.

**Methods**

This is a retrospective study. Data was gathered from Cataract Surgery Registry (CSR) in the National Eye Database (NED). Cataract surgeries performed at Hospital Sultanah Nur Zahirah (HSNZ), Kuala Terengganu, and at outreach-based program Klinik Katarak Kementerian Kesihatan Malaysia (KKKKM) within Terengganu, from January 2017 to December 2019 were included in the study. Patients' demographic data, preoperative, operative and postoperative characteristics were compared and analysed.

**Results**

A total of 3990 surgeries were analysed. 90.2% of patients in KKKKM (Terengganu) and 85.1% of patients in HSNZ achieved visual acuity of 6/12 or better after cataract surgery with mean postoperative log MAR  $0.18 \pm 0.34$  and  $0.22 \pm 0.35$  respectively ( $P=0.006$ ). Both categories achieved postoperative refractive outcome within 1

dioptré from the planned refraction in 86% of the cases for both programs. Multiple linear regression revealed that predictive factor for poorer refractive outcome were previous ocular surgery, glaucoma, proliferative diabetic retinopathy, age-related macular degeneration, maculopathy, retinal detachment, posterior capsular rupture and zonular dehiscence.

## **Conclusion**

The outcome of outreach-based cataract surgery in Terengganu is comparable to the tertiary hospital. Thus, it should be expanded throughout the country to reduce the cataract surgery backlog.

**COSCAB153****LASER REFRACTIVE SCREENING OUTCOMES AT A PUBLIC TERTIARY CENTRE IN MALAYSIA**

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**Background**

Over the past twenty years, a variety of refractive surgery techniques, most notably LASIK, have been developed and marketed as simple and safe alternatives to glasses or contact lenses. However, there are a certain set of criteria that must be evaluated and screened for preoperatively to ensure the efficacy and safety of the patient and the surgery itself. Thus, this study is conducted to evaluate the laser refractive screening outcomes at the IIUM Eye Specialist Clinic.

**Methods**

A retrospective review of medical records of the patients who underwent preoperative refractive surgery assessments in IIUM Eye Specialist Clinic. This retrospective study was conducted from January 2021 to June 2021.

**Results**

A total of 185 patients (370 eyes) were included in this study. Majority of the patients were female (61.6%). The mean age of the patients was 33.29 (7.89) years old. Majority of the patients had no underlying medical illness (90.8%) or any surgical procedure done before (79.5%). 68 patients wore contact lenses with the mean refractive dioptric power of -1.62 (2.58) for right eye (RE) and -1.68 (2.57) for the left eye (LE). For the patients wearing spectacles prior to procedure, the mean refractive error was -4.11 (2.77) dioptres for RE and -4.06 (2.79) dioptres for the LE. The mean pachymetry were found to be 514.94 um for RE and 518.88 um for the LE. A total of 129 patients (69.7%) proceeded for the procedure while 56 patients (30.3%) could

not proceed. Low pachymetry (60.71%) and steep K-reading (14.29%) were the commonest reasons for not able to proceed with the laser procedures.

### **Conclusion**

Low pachymetry and steep keratometry reading were found to be the leading cause for not proceeding with laser refractive surgery in this study.

**COSCAB160****THE IMPACT OF STRABISMUS ON HEALTH-RELATED QUALITY OF LIFE ASSESSMENT IN MALAYSIAN CHILDREN WITH INTERMITTENT EXOTROPIA AND THEIR PARENTS**

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**Background**

The Intermittent Exotropia Questionnaire (IXTQ) is a tool for assessing the health-related quality of life (HRQOL) in children with intermittent exotropia. Still, limited information is available within the Ministry of Health hospitals. This study aims to evaluate the HRQOL in Malaysian children with intermittent exotropia and their parents/guardians using the IXTQ.

**Methods**

A prospective study recruited intermittent exotropia patients aged 5-17 years old with one of their parents, who attended the paediatric ophthalmology service in 2020. The IXTQ, in English or Malay-translated was administered to the patients and one of the parents at the first encounter.

**Results**

Sixty children and one of their parents were enrolled. The Child IXTQ score reduced with increasing age  $-0.043[-0.075, -0.009]$ ,  $P = 0.015$ , with scores in the 8-17 years age-group were significantly lower than scores in the 5-7 years age-group ( $56.02 + 22.2$  vs  $68.16 + 18.1[P = 0.028]$ ). There was a significant difference between child IXTQ ( $61.08 + 21.2$ ) and pp-IXTQ scores ( $53.03 + 21.8$ ),  $P=0.005$ . Item-level analysis

revealed a good child-proxy agreement in a majority of items, with children's worry focused on being bothered about people's wondering what may be wrong with their eyes and the need to wait for their eyes to clear up. The parents were more likely to be worried about their children's eyes and eyesight long term.

## **Conclusion**

Older children with intermittent exotropia presented with poorer HRQOL. Parents were more likely to overestimate the psychosocial impact of their children's strabismus.

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# Poster Abstracts

## COS CAB002

### POSTOPERATIVE PSEUDOPHAKIC PUPILLARY BLOCK GLAUCOMA MIMICKING ENDOPHTHALMITIS

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#### Background

In a postoperative patient of cataract surgery, the occurrence of pain, redness and dimness of vision is always fraught with the fear of endophthalmitis. However, all such cases which appear to be endophthalmitis at first sight may not be endophthalmitis case at all. Here, a reported rare case of pseudophakic pupillary block glaucoma in postoperative period mimicking acute endophthalmitis.

#### Methods

Case report. A 60-year-old lady complaint of acute blurring of vision and redness for a week. She had undergone right eye cataract surgery 2 weeks before her presentation. Her immediate vision post-surgery was good. She had diabetes mellitus with fairly controlled blood sugar. On examination visual acuity in the right eye was 6/60 with intraocular pressure of 52mmHg. The right conjunctiva was injected, cornea was oedematous with shallow anterior chamber. Iris bombe noted with 360 degrees posterior synechiae. There was mild anterior uveitis with hazy fundus view.

#### Results

Patient was diagnosed to have pupillary block glaucoma. She was started on topical antiglaucoma, tropicamide and dexamethasone. Peripheral iridectomy was

performed after the inflammation reduced. Intraocular pressure was initially normal post peripheral iridectomy but it rose again as inflammation set in. Subconjunctival dexamethasone was injected. However, the anterior uveitis persisted. Anterior chamber tap culture showed no growth. Intracameral tenecteplase was injected. Posterior synechiae was broken and the fibrin disappeared. The intraocular pressure was normal. The fundus was normal with no evidence of infection. The right visual acuity improved to 6/9 before discharge.

## **Conclusion**

Postoperative pseudophakic pupillary block glaucoma may present as acute postoperative endophthalmitis. Proper assessment and management may differentiate them and prevent further complications.

**COCSAB004****AN UNUSUAL PRESENTATION OF SPINDLE CELL HAEMANGIOMA OF NASAL CAVITY WITH EXTRADURAL EXTENSION**

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**Background**

Spindle cell haemangioma (SCH) is an uncommon benign vascular neoplasm, usually seen in the dermis and subcutaneous tissue of distal extremities. The tumour originates from blood vessels occur most commonly in middle-aged adults but may appear at any age.

**Methods**

Case report. A 27-year-old male presented with acute onset of epistaxis for 3 days with a chronic history of headache associated with left eye epiphora and upper gum pain. There was a vascularized mass on left nostril that increase in size for 5 months complicated with left sided facial distortion. Eye examination revealed impaired left optic nerve function and ophthalmoplegia. Imaging results showed well-defined, heterogeneously enhanced, soft tissue mass with peripheral calcification seen occupying the ethmoid sinuses anteriorly, extending into the nasal cavity, frontal sinuses and laterally to the bilateral orbit cavity and bilateral maxillary sinuses exerting a mass effect to the bilateral medial recti muscle causing stretching and thinning of the muscle. The mass was seen within close proximity to the bilateral optic nerve.

**Results**

Based on the patient's history, examination and imaging results patient was diagnosed to have SCH. The patient underwent embolization to reduce the size of the tumour while waiting for resection.

## **Conclusion**

SCH is a rare benign vascular tumour usually affecting the extremities and rarely head and neck region. There is no gender predilection. SCH generally occurs in the dermis or subcutaneous tissue and rarely occurs in the deep soft tissue. In our patient, the deep soft tissue in the anterior ethmoidal sinus expanding to frontal bone and lateral orbital cavity causing displacement of the globe bilaterally. SCH is usually asymptomatic in the early stage, but late presentation causing cosmetic disfigurement is a common indication for surgical treatment.

**COSCAB005****THE INCIDENTAL DIAGNOSIS OF COATS' DISEASE: A CASE REPORT**

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**Background**

Coats' disease is a telangiectatic neovascular disease of retina of unknown aetiology that frequently affects unilateral eyes, mainly of young males. As in this report, we came across an incidental finding of asymptomatic Coats' disease in an 8-year-old boy with a typical posterior segment sign.

**Methods**

Case report.

An 8-year-old boy was brought to the hospital for alleged left eye (LE) chemical injury caused by weed killer. He denied any ocular symptoms. Past medical history and family history were unremarkable. On examination, both eyes (BE) vision was 6/6 and orthophoric in primary gaze. BE anterior segment examination including intraocular pressure were normal. However, RE fundus examination showed retinal telangiectasia and subretinal exudation over the temporal peripheral retina with sheathing of the retinal venules. There were no retinal detachment or haemorrhages. The RE macula appeared normal. LE fundus examination was normal. Fluorescein angiography (FA) showed hyperfluorescence of the retinal telangiectasia in the venous phase, areas of peripheral non-perfusion and capillary dropout. There are aneurysms and peripheral leakage seen. FA of LE demonstrated normal retina.

**Results**

The clinical findings and FA suggested the diagnosis of Coats disease stage 2B. He is planned to receive laser photocoagulation in areas of leaking telangiectases and aneurysms, and non-perfusion.

**Conclusion**

Although the more common features at presentation in Coats' disease are leukocoria and strabismus, it can also be detected as a result as an incidental finding during an ophthalmic examination, as seen in our patient. Fortunately for him, the alleged chemical injury has made it possible for diagnosing the disease at an early stage. This enabled us to initiate appropriate treatment, which can greatly improve the visual outcome and reduce the rate of enucleation.

**COS CAB007****LOSS OF VISION IN A PATIENT WITH CAVERNOUS SINUS THROMBOSIS SECONDARY TO ODONTOGENIC INFECTION**

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**Background**

Cavernous sinus thrombosis (CST) is a life-threatening condition that can occur secondary to severe head injuries, infection or any health conditions that can cause venous stasis. CST secondary to odontogenic origin has been reported in patients with active dental infection or following dental procedures.

**Methods**

Case report. A 32-year-old gentleman with underlying hypertension presented to ophthalmology clinic with 2 weeks onset of dropping of left sided upper eyelid and double vision followed by 1 week history of left eye blurring of vision. His symptoms were preceded by 1 week of left sided dental pain, headache and fever. He has visited dental clinic during the first week of dental pain and he was prescribed with a course of oral Metronidazole for a week before scheduling for tooth extraction. However, the disease progressed with ocular symptoms.

On examination, his visual acuity was 6/6 on the right eye and perception to light on the left eye. Left eye pupil was sluggish and there was marked afferent pupillary reflex. Left sided partial ptosis, mild proptosis and ophthalmoplegia were present. Bilateral anterior and posterior segments were unremarkable. His white cell count was  $11.5 \times 10^9/L$  (6.0- 10.0) and C-reactive protein was 28.3 mg/L (5.0). CT scan showed left cavernous sinus thrombosis with diffuse thickening and enhancement extended to left orbital apex.

**Results**

With a diagnosis of CST, he was started on intravenous ceftriaxone and subcutaneous enoxaparin. Left lower wisdom tooth extraction was done during the admission. He was hemodynamically stable, and he was discharged with direct oral anti-coagulant and oral Augmentin.

**Conclusion**

Cavernous sinus thrombosis is a potentially lethal condition that require early detection and prompt treatment in order to prevent devastating sequelae.

**COS CAB008****SUDDEN SCOTOMA, A TELL-TALE SIGN OF LEUKAEMIA**

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**Background**

Chronic myeloid leukaemia (CML) is a myeloproliferative neoplasm, characterized by increased proliferation of granulocytic cell line without loss of capacity to differentiate. About 5-10% of CML patients presented with ophthalmic manifestations.

**Methods**

Case report. A 20-year-old previously healthy Malay lady presented with sudden onset of right eye scotoma for 2 days. On presentation, visual acuity over right eye was counting finger and left eye was 6/9. Anterior segments were normal. Fundus examinations revealed bilateral optic disc swelling with multiple retinal haemorrhages and Roth's spots. Fluorescein angiography did not show any vasculitis changes. On further history, she bruised easily.

There was no history suggestive of autoimmune disease. Physical examinations showed splenomegaly with palpable femoral lymph node. Full blood count revealed raised white blood count of  $190.26 \times 10^3 / \mu\text{L}$ , predominantly neutrophils.

**Results**

Peripheral blood film suggestive of CML in chronic phase. She was co-managed with the haematology team and started on cytoreduction therapy of hydroxyurea and allopurinol. Bilateral vision and fundus improved on subsequent follow up.

**Conclusion**

It is crucial to recognize ophthalmic features in patients who do not present with the typical symptoms of CML. Early diagnosis and treatment may improve the outcome. Suspicious ocular findings should complete with further history, systemic examinations and appropriate workups.

**COS CAB013****METAL BYPASS: A RARE CASE OF ORBITAL INJURY**

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**Background**

Penetrating orbital injuries can give a serious threat to vision and ocular motility. Paediatric ocular injury is often accidental and may be preventable.

**Methods**

Case report. A 10-year-old boy alleged right orbital penetrating injury with metal rod hanging from right superior orbital edge pushing the right globe inferiorly. Right eye visual acuity (VA) was perception of light with negative reverse relative afferent pupillary defect (RAPD) and restriction of extraocular muscles movement (EOM) in all gazes. Computer tomography of orbit and brain showed fracture of the right supraorbital rim and left temporal bone with frontal bone extension and pneumocranium.

**Results**

Intraoperatively, there was full thickness laceration wound of right upper lid with intact right orbital rim. However, there was right orbital roof defect upon foreign body removal with pulsation of the right globe. Exploratory craniotomy was performed by neurosurgeons and revealed intact dura matter with no subdural haemorrhage. The right orbital roof defect was closed with craniotomy bone by oral and maxillofacial team. Post-operatively, there was right eye proptosis with EOM restriction but no right globe pulsation. The right VA was 6/18 with negative reverse RAPD. At 3 weeks post-operatively, the right VA was improved to 6/7.5 with EOM restriction over upper and lower gazes and resolution of proptosis.

**Conclusion**

Orbital penetrating injury requires multidisciplinary involvement and with globe preservation leads to a better visual outcome

**COS CAB017****OCULAR SEQUELAE IN ACUTE RIGHT MAXILLARY SINUSITIS WITH PROVOKED LEFT TRANSVERSE SINUS THROMBOSIS**

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**Background**

The maxillary sinus is one of the four paranasal sinuses, which are sinuses located near the nose. The maxillary sinus is the largest of the paranasal sinuses

**Methods**

Case report. A 32-year-old Malay male with uncontrolled diabetes mellitus, presented with right sided facial pain associated with headache and fever for 4 days. Computed tomography (CT) scan of paranasal sinuses was performed, revealed an acute right maxillary sinusitis. An emergency right middle meatal antrostomy was performed and intravenous Augmentin was commenced. Patient had binocular diplopia at day 2 post operation. Bilateral visual acuity was 6/6 with negative relative afferent pupillary defect. Presence of mild proptosis and ptosis on his right eye with limited movement of the right inferior oblique muscle. His left eye was unremarkable. Fundus assessment was insignificant bilaterally. Other cranial nerves examination was intact. Repeated imaging showed residual right maxillary sinusitis with involvement of right ethmoidal sinus and erosion of right orbital floor, which is the most likely route of intraorbital extension. CT venography disclosed a left transverse sinus thrombosis but sparing the cavernous sinus.

**Result**

Diagnosis of acute right maxillary sinusitis complicated with intraorbital extension and provoked left transverse sinus thrombosis was made. Klebsiella pneumonia

was isolated from the sinus culture, and the similar antibiotic was continued as it showed sensitivity. Anticoagulant was added subsequently. Latest imaging revealed minimal residual right maxillary sinusitis with absence of intraorbital extension, indicating resolution of the disease.

## **Conclusion**

Ocular sequelae in acute maxillary sinusitis is uncommon, which can be due to compromised bony barriers or related to acute life threatening cavernous sinus thrombosis. The latter should be excluded in dealing with sinusitis.

**COSCAB021****“NODULAR” KERATITIS WITH DIFFERENT PATHOLOGIES**

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**Background**

Corneal nodular lesion is not uncommon in clinical practice, despite of its immune privilege. It may arise due to different aetiologies. The pathologies of nodular keratitis can be treated with a common clinical pathway for the diagnostic, treatment and follow up of the lesions.

**Methods**

Case series. Three young females presented to eye clinic between December 2019 to February 2021. The age range was between 11-31 years old with mean age of 24 years old.

Case 1: Chinese lady complaint of mild blurring of vision, associated with unilateral painless red eye for 1 week. Her right eye visual acuity was 6/9. Corneal examination revealed present of nodule in deep reddish hue, 2.5x1mm size at the inferonasal area involving the subepithelial and anterior stroma layer with epithelial defect and deep corneal vascularisation.

Case 2: Chinese lady presented with mild blurring of vision and painless left eye (LE) redness for 1 month duration. Visual acuity of LE was 6/12. The cornea sensation was impaired and present of 1.5x1mm nodule at the inferonasal cornea with surrounding subepithelial opacity and superficial vascularization.

Case 3: Malay lady with bilateral painful eye redness for 1 week. Her vision in both eyes was 6/12. Blepharitis and meibomitis noted over both eyelids. Generally centre corneas were clear but present of bilateral corneal opacities and subepithelial bullae nodule measuring 1x1mm at the inferotemporal quadrant involving the subepithelial and anterior stroma layer.

In all three cases, the anterior segment OCT (AS-OCT) done showed hyperreflective nodular lesion confined to the anterior stromal. Corneal scrapping stain and culture were negative. FBC, CRP and Mantoux were unremarkable.

## **Results**

A diversity of diagnoses was made after thorough history and examination which include herpetic stromal keratitis, marginal keratitis with subclinical subepithelial corneal dystrophy and phlyctenular keratoconjunctivitis secondary to blepharitis. All of them were initiated on oral antibiotics and antiviral with combination of topical antibiotic and steroid based on their clinical condition. The corneal nodules resolved with scarring after a period of treatment.

## **Conclusion**

Corneal nodular lesion can be associated with various pathologies. A thorough history, examination and appropriate investigation is needed to reveal the underlying cause. Serial anterior segment photos and AS-OCT are useful tools to monitor the progress and treatment response. Prompt diagnosis and initiation of treatment is crucial to prevent further complications.

**COS CAB022****EVALUATION OF THE VISION-RELATED QUALITY OF LIFE USING NATIONAL EYE INSTITUTE-REFRACTIVE ERROR QUALITY OF LIFE INSTRUMENT-42 (NEI-RQL-42) IN UNDERGRADUATE STUDENTS WITH MYOPIA**

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**Background**

The prevalence of myopia is getting higher around the world especially in Asia. However, there is limited study regarding the vision-related quality of life (VRQOL) among the myopes. This study is to evaluate the vision-related quality of life using NEI-RQL-42 among undergraduate students with myopia.

**Methods**

A cross-sectional study was conducted in selected universities in Kelantan from December 2018 till November 2020. The samples were selected with the convenience purposive sampling method. The participants were recruited after the relevant history taking, ocular screening, and refraction. The suitable subjects were asked to answer the NEI-RQL-42 questionnaire.

**Results**

A total of 458 participants aged 18 - 29 years were recruited (378 were myopic and 80 were emmetropic). Myopes had a poorer VRQOL significantly ( $p < 0.001$ ) in mean global score ( $62.20 \pm 9.53$ ) than emmetropes ( $81.12 \pm 12.72$ ) and showed a lower score in all subscale scores significantly ( $p < 0.05$ ) except symptoms domain ( $p = 0.319$ ). High myopes also demonstrated poorer VRQOL than low and moderate myopes significantly overall. Contact lenses wearers reported significant poorer VRQOL with a lower mean global score ( $58.68 \pm 8.16$ ), expectations score ( $13.98 \pm 19.18$ ),

and far vision score ( $68.69 \pm 15.49$ ) (all  $p > 0.050$ ) while the significantly better score in appearance ( $63.70 \pm 16.33$ ) and satisfaction with correction ( $73.61 \pm 16.38$ ) (all  $p < 0.050$ ) comparing to spectacles wearers

## **Conclusion**

There was a significantly poorer mean score of NEI-RQL-42 among the myopes especially high myopes comparing to emmetropes. Contact lenses wearers acquired a significantly poorer mean score statistically compared to spectacles wearers.

**COSCAB025****BILATERAL NEURORETINITIS IN A HEALTHY GIRL WITH MELIODOSIS INFECTION**

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**Background**

Melioidosis is caused by a gram negative, anaerobic bacillus *Burkholderia pseudomallei*. Being endemic in Southeast Asia including Malaysia, it is a potentially fatal infectious disease, usually found in soil and surface water. Pneumonia is the most common systemic manifestation and abscesses in multiple organs are characteristic, however neurological involvement in paediatric age group is very rare.

**Methods**

Case report.

A 5-year-old girl presented with a month history of intermittent high grades fever and cough. She was initially admitted to the paediatric ward for lungs infection and intravenous antibiotic (Ceftazidime 940mg QID) was commenced. She was then referred for general ocular assessment to screen for associated autoimmune disease, unfortunately there were incidental findings of bilateral disc swelling (more on the right side) with macula oedema. Vision was 6/36 (OD) and 6/18 (OS) with reduced red desaturation in both eyes. Optical coherence tomography (OCT) macula showed subretinal fluid in the right eye. No neurological deficits were noted, meningeal signs were absent. Contrasted MRI brain and orbits were normal however ultrasound abdomen revealed multiple micro abscess in the liver and spleen. Serology for *Burkholderia pseudomallei* was noted to be significantly high titre (1:640).

**Results**

Patient was treated as meliodosis. The IV ceftazidime was continued and completed for six weeks. Visual acuity improved to 6/18 (OD) and 6/12 (OS) at three weeks and subsequently to 6/6 (OU) with resolution of subretinal fluid upon completion of antibiotic.

**Conclusion**

Neurological involvement in paediatric meliodosis infection is extremely rare and still under recognized as it mostly occurs without any predisposing factors. A high index of suspicion should be considered in endemic areas including our country.

**COS CAB026****STRABISMUS, MORE THAN MISALIGNMENT OF THE EYES: A CASE SERIES**

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**Background**

Strabismus is a common childhood disorder that causes deviation or squinting of the eyes. These two cases of childhood strabismus secondary to intraorbital mass and Coat's disease showed how important to establish the diagnosis with a proper work up.

**Methods****Retrospective case series.**

Case 1: A 6-year-old girl presented with external strabismus of right eye (RE) for 1 year and RE proptosis for 2 months. Visual acuity was 6/24 in RE and 6/12 in left eye (LE). Exophthalmometer reading showed RE 18mm and LE 15mm. RE had large-angle exotropia with limited eye movement superiorly and nasally. Slit lamp examination RE showed corectopia, ectropion uveae and prominent corneal nerve. Optic disc was pink with cup-disc-ratio 0.5, macula and retina were normal. Computed tomography (CT) scan orbit showed lobulated soft tissue mass at right intraconal space involving orbital apex and ipsilateral cavernous sinus suggesting of malignancy (rhabdomyosarcoma) or venolymphatic malformation. MRI scan showed multiple cranial nerve schwannomas evidenced by enhancing solid lesion within bilateral cavernous sinus, extending into bilateral orbits through superior orbital fissure. These are characteristic of neurofibromatosis (NF) type II.

Case 2: A 7-year-old boy presented with LE diminution of vision associated with exotropia for the past 2 months. BCVA of RE was 6/7.5, LE was non-perception to light. Both pupils were reactive. Relative afferent pupillary defect noted in the LE. LE had large-angle exotropia. Normal ocular movements and intraocular pressure were observed in both eyes. Anterior segment of LE showed band keratopathy and anterior vitreous cells. Fundus of LE showed extensive total exudative retinal

detachment with multiple areas of retinal haemorrhages. CT scan showed small ill-defined high attenuation non-enhancing intraocular lesion within the left globe. He was diagnosed as Coats' disease stage 5.

## **Results**

In both cases imaging modalities helps for diagnosis to rule out an ocular and a life-threatening condition. The first case was co-managed with paediatric ophthalmologist for thorough work up of NF. Neurosurgical team may involve later if child grow up with progression of the disease. The second case was opted for conservative management after possibility of ocular malignancy has been rule out.

## **Conclusion**

Our case series illustrated the importance of comprehensive eye examination in children with strabismus to detect potential sinister pathologies. Timely diagnosis and appropriate management are vital to achieve more favourable visual outcome.

**COS CAB027****FULLMOON IN THE FUNDUS: A RARE CASE OF SUBRETINAL ABSCESS SECONDARY TO STAPHYLOCOCCUS AUREUS BACTERAEMIA**

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**Background**

Staphylococcus aureus bacteraemia (SAB) often leads to ocular infections, including endophthalmitis.

**Methods**

A rare case report. A 55-year-old gentleman with newly diagnosed diabetes mellitus and lip abscess for the past 1 week, presented with left eye floaters for 1 day following incision and drainage of lip abscess. The visual acuity of left eye was 6/6 (Snellen). Examination revealed mild vitritis and a 2-disc diameter sub-retinal abscess supero-temporally with surrounding septic spots in left eye fundus. There was no associated diabetic retinopathy. Blood and lip pus culture subsequently grew SAB.

**Results**

He was diagnosed as an endogenous endophthalmitis with subretinal abscess secondary to SAB. He was treated with a single dose of intravitreal vancomycin 2mg/0.1ml and ceftazidime 2mg/0.1ml. Vitreous tapping showed no organism growth. He was also started on high dose of intravenous cloxacillin 2g QID. This case was co-managed with dental and medical team. The subretinal abscess and vitritis improved significantly throughout the next few days, thus no further intravitreal antibiotics was deemed necessary. Systemic antibiotic was continued up to 4 weeks. The subretinal abscess subsequently healed with choroidoretinal scarring. His vision remains at 6/6 throughout the ordeal.

**Conclusion**

Endogenous endophthalmitis with subretinal abscess secondary to SAB is uncommon. However, it needs to remain as an important differential diagnosis especially in immunocompromised patient as early recognition and intervention can prevent devastating progression and complication of endophthalmitis.

**COSCAB028****ACUTE POST OPERATIVE CITROBACTER PANOPHTHALMITIS: A CASE REPORT**

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**Background**

Panophthalmitis is a severe ocular condition which can lead to phthisis bulbi or may need evisceration.

**Methods**

Case report. A 78 -year-old man with multiple medical comorbidities, underwent a complicated left eye (LE) cataract surgery and was discharge well with vision of 6/36. He started to have painful red eye on first postoperative day but only seek treatment the following day. He gave a history of visiting graveyard for ritual practice after the surgery. His LE vision was light perception with positive RAPD at presentation and intraocular pressure (IOP) was extremely high. Conjunctival was injected with generalized chemosis. LE cornea was hazy with presence of hypopyon level. Vitreous loculations seen in B scan. His blood sugar was poorly controlled.

**Results**

A diagnosis of endophthalmitis was made and Intravitreal (IVT) tapping and IVT antibiotics were administered immediately, together with systemic and topical antibiotics, maximal anti-glaucoma agents and topical steroids. Despite aggressive treatment, his condition progressed rapidly, with presence of swollen eyelids, worsening of chemosis, restricted extraocular muscle movement and total hypopyon. Repeated B scan showed dense loculations, scleral thickening, positive T-sign and choroidal effusion. A revised diagnosis of LE panophthalmitis was made. Systemic and topical antibiotics were escalated. Unfortunately,

his condition deteriorated further with corneal melting, wound dehiscence and purulent discharge from the eye, warranted an emergency evisceration on day 4 of admission. The vitreous sample taken on presentation grew *Citrobacter diversus* with good antibiotics susceptibility. He was diagnosed as acute postoperative panophthalmitis caused by *Citrobacter diversus*

### **Conclusion**

*Citrobacter diversus* panophthalmitis is very rare. It is related to poor visual outcome and treatment remains challenging.

**COSCAB029****SELF-INFLICTED ORBITOCRANIAL PENETRATING INJURY**

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**Background**

The majority of patients with serious self-inflicted injuries to the eye were diagnosed as suffering from schizophrenia spectrum psychosis.

**Methods**

Case report. A 59-year-old Chinese lady, with underlying schizophrenia not on proper treatment and follow up, staying at nursing home, presented with self-inflicted injury using a wooden chopstick to her left eye. On ocular examination, there was a wooden chopstick that had penetrated the left orbital cavity inferior to the left globe, no active bleeding seen. CT brain/orbit was done prior to the surgery, showing the foreign body traversing from left orbit into the cranium.

**Results**

Patient was co-managed with the neurosurgical team and she underwent emergency left craniotomy and evacuation of the foreign body. Intraoperatively, the entry wound of the foreign body located inferotemporal of orbit, between the inferior and lateral rectus muscle, sparing the globe and optic nerve. It penetrated through superior orbital fissure and travels just below the internal carotid artery. Otherwise, no other injuries seen intracranium. Postoperatively, anterior and posterior ocular examination appear normal, however unable to check her vision and extraocular movement as she was not co-operative.

She had history of self-inflicted injury to the fellow eye by using a spoon 3 months earlier where she sustained right eye traumatic optic neuropathy, traumatic hyphema and vitreous haemorrhage. She was managed conservatively, due to the poor prognosis.

**Conclusion**

Self-inflicted injury can happen in schizophrenia patients. We report a case of repeated self-inflicted injury to both eyes in a schizophrenic patient without a proper follow-up. This patient is considered high risk to suffer from self-injury. The management approach is multimodal, and proper care by the caretaker is very important to avoid this problem.

**COSCAB030****SPECTRUM OF SEPTIC CAVERNOUS SINUS THROMBOSIS IN HOSPITAL SULTANAH NUR ZAHIRAH: A REVIEW OF 4 CASES**

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**Background**

Cavernous sinus thrombosis (CST) may be aseptic or septic. Septic CST may be associated with contiguous or venous spread of infection in orbital cellulitis, and chronic bacterial infection of the sinuses.

**Methods**

Retrospective case series of 4 patients identified with septic CST confirmed by computed tomography imaging in Hospital Sultanah Nur Zahirah from 2016–2020. Medical reports were reviewed for demographics, risk factors, symptoms, aetiology, radiographic diagnosis, treatments and outcomes.

**Results**

There were 4 males recruited with the mean age of 36.25 years old (ranges from 24-59 years old). All 4 cases presented with fever, ptosis, eye pain, restriction of extraocular muscle movement and reduced vision. Mild visual disturbance is seen in 3 of the patients (ranging from 6/9 to 6/18) and 1 have severe visual loss of 6/60. The primary sources of infection are sepsis (n=2), with one of the case yields *Staphylococcus aureus* while the other shows no growth, sinusitis (n=1) reveals no microorganism and odontogenic (n=1) source harvests *Aspergillus niger*. All cases were treated with broad-spectrum intravenous antibiotics. 2 patients were given anti-coagulation while the other two were not. The mean time between initial presentation to diagnosis of CST was 2 days. All the patients had prolonged hospital admission

of more than 2 weeks. The mortality rate was 0%. Two of the cases had complete resolution with improvement of visual acuity, while the other two had neurological deficits upon discharge.

### **Conclusion**

Early diagnostic imaging with contrast-enhanced CT should be done in all patients with suspected CST. Proper treatment comprises of appropriate antibiotics or anti-fungal ensures good ocular prognosis.

**COS CAB031****CLINICAL PRESENTATIONS OF OCULAR SURFACE SQUAMOUS NEOPLASIA**

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**Background**

Ocular surface squamous neoplasia (OSSN) comprises of a spectrum of tumours that affect the ocular surface ranging histologically from intraepithelial neoplasia to different grades of invasive squamous cell carcinoma.

**Methods**

A case series of OSSN with different presentations.

Case 1 is a 71-year-old male with history of left conjunctival Ocular Surface Squamous Neoplasia (OSSN) excised in 2016, presented with left eye redness and blurred vision for 1 year with constitutional symptoms noted to have left eye papillomatous fleshy conjunctival mass of 11mm x 8mm with multiple feeder vessels.

Case 2 is a 67-year-old male with underlying diabetes presented with right eye conjunctival mass for 2 months noted to have right eye irregular shaped conjunctival mass temporally measuring 10mm x 10mm with vascularisation and leukoplakia.

Case 3 is a 72-year-old male with underlying diabetes, hypertension and hyperlipidaemia presented with right eye conjunctival lesion since a year ago with sudden increase in size in past 1 month. On examination, there is a gelatinous white lesion at interpalpebral fissure with widest dimension of 17mm and associated feeder vessels

**Results**

Case 1 his left eye wide excision biopsy with cryotherapy done and histopathology examination (HPE) showed conjunctival squamous intraepithelial neoplasia 3. Second case, patient underwent wide excision, cryotherapy and amniotic

membrane tissue patch. The HPE showed moderately differentiated squamous cell carcinoma. Last case wide excision biopsy and amniotic membrane patch was done. HPE was consistent with conjunctival intraepithelial neoplasm.

## **Conclusion**

OSSN has variable clinical presentations and the definitive diagnosis depends on histopathological examinations. The gold standard of treatment remains as wide surgical excisions and adjunct topical chemotherapy has also gained popularity to prevent recurrence.

**COSCAB032****SAFETY AND FUNCTIONAL OUTCOME OF ANGLE SUPPORT INTRAOCULAR LENS (ASIOL) IN HOSPITAL SULTANAH NUR ZAHIRAH (HSNZ) TERENGGANU: A TEN-YEAR REVIEW**

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**Background**

Cataract is the leading cause of blindness worldwide. Cataract surgery is the most commonly performed surgery among ophthalmologists worldwide. Intraocular lens (IOL) is preferably implanted into the capsular bag in uncomplicated cataract surgery. Management of IOL implantation with inadequate capsular support is challenging. Inadequate capsular support can result from complicated cataract surgery, subluxation of crystalline lens or from dislocation of previous conventional IOL. Various methods of surgical correction have been described, including placement of specialized IOL supported by the anterior chamber (AC), iris or sclera fixated IOLs. Focus of this study is to evaluate the safety and functional outcome of angle support intraocular lens in HSNZ, Terengganu.

**Methods**

This is a ten-year retrospective analysis of patients who underwent ASIOL implantation between January 2011 and December 2020 in HSNZ. Demographic data, indications of surgery, intraoperative complications, postoperative complications and visual outcome, were obtained from electronic medical record. All the data were analysed using SPSS version 26.

## Results

A total of 274 eyes from 269 patients with mean age of  $67.4 \pm 8.8$  were included. 74.5% were primary and 25.5% were secondary ASIOIOL implantation. The mean duration of surgery was  $68.9 \pm 33.2$  minutes. The two main indications for ASIOIOL implantation were posterior capsular rupture (47.4%) and zonular dialysis (35.4%). Only 1.8% intraoperative complications recorded, Descemet tear (0.7%), floppy iris (0.7%) and hyphaema (0.4%). Prolonged inflammation was the most common postoperative complication (16.8%), followed by IOL subluxation (2.9%), glaucoma (1.8%) and endophthalmitis (1.1%). There was no significant difference between mean targeted spherical equivalent ( $-0.53 \pm 0.17$ ) and mean post-operative spherical equivalent ( $-0.56 \pm 1.32$ ) (p value=0.789). Majority of cases (75%) achieved best corrected visual acuity (BCVA) of 6/18 and better at three months post-surgery and 71.8% at sixth months post-surgery.

## Conclusion

In case of inadequate capsular support, angle support intraocular lens implantation has been found to be safe and effective to provide satisfactory visual outcome without significant intraoperative and postoperative complications.

**COS CAB033****RISK FACTORS OF AGGRESSIVE POSTERIOR RETINOPATHY OF PREMATURE (APROP) IN A HEAVIER PREMATURE INFANT: A CASE REPORT**

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**Background**

Aggressive posterior retinopathy of prematurity (APROP) is a particularly a severe form of ROP. Babies with low prematurity and with very low birth weight, they are more at risk. However, in this case report a case of APROP developed in an infant with heavier than usually proposed birth weight.

**Methods**

Case report. An infant born vaginally at 30 weeks gestational age, weighing 1550g was identified for ROP screening due to presence of risk factors such as prematurity, low birth weight, received supplemental oxygen, intraventricular haemorrhage and history of maternal chorioamnionitis. Dilated bilateral fundus examination revealed pre-retinal haemorrhage at posterior zone 2 with tortuous and dilated vessels.

**Results**

The infant was diagnosed to have bilateral eye APROP at posterior zone 2. Following single injection of intravitreal ranibizumab, significant regression of APROP was observed. Occurrence of APROP which was proposed in extremely premature infant less than 28 weeks gestational age with extreme low birth weight  $\leq 1000$ g was not expected in infant of our case. He is believed to develop APROP as a result of frequent episodes of spontaneous desaturation which is due to gastroesophageal reflux disease, as fluctuation of oxygen saturation during these episodes is

associated with development of severe ROP. Besides other possible risk factor is weight gain under 50% at 6 weeks of life.

### **Conclusion**

Frequent episodes of spontaneous desaturation and weight gain under 50% at 6 weeks of life may contribute to the occurrence of APROP in heavier premature infants.

**COSCAB034****HAEMORRHAGIC RETINITIS AS A RARE PRESENTATION OF OCULAR TOXOPLASMOSIS**

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**Background**

Toxoplasmic retinochoroiditis typically affects the posterior pole, and the lesions can be varied. Atypical presentations include punctate outer retinitis, neuroretinitis, papillitis and haemorrhagic retinitis.

**Methods**

Case report. A 24-year-old gentleman with no premorbid, presented with one week history of right eye (RE) pain and redness. There was associated blurring of vision with flashes of light. He had history of contact with stray cats. Ocular examination revealed RE positive relative afferent pupillary defect. Visual acuity was counting fingers. Anterior chamber examination showed injected conjunctiva with stellate keratic precipitates on cornea and cells 4+. Intraocular pressure was normotensive. Fundus examination revealed moderate vitritis with haemorrhagic retinitis about two disc diameter, superior nasal to the fovea. The optic disc was swollen with surrounding haemorrhages. There was vascular sheathing more prominent in arterioles than venules. Kyrieleis plaque was seen along the arterioles. Vitreous tap was negative for cytomegalovirus, varicella zoster and herpes simplex 1 and 2. Toxoplasma serology was positive

**Results**

Diagnosis of ocular toxoplasmosis with haemorrhagic retinitis was established. Other infective screening was negative. OCT macula showed retinochoroiditis. The patient was started on Gutt Dexamethasone 0.1%, Gutt Tropicamide 1%, oral

Bactrim and oral Prednisolone. Vision improved to 6/18 within one month with no anterior chamber reaction. Optic disc swelling and retinitis resolved.

### **Conclusion**

Ocular toxoplasmosis classically presents as headlight-in-fog appearance, however haemorrhagic retinitis can also be a presenting feature as evidenced by this case. Early diagnosis is crucial to initiate appropriate treatment in obtaining good vision

**COS CAB036****PURTSCHER'S RETINOPATHY: A RARE CASE PRESENTATION FOLLOWING TRAUMA WITH SEVERE CHEST COMPRESSION**

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**Background**

Purtscher's retinopathy typically follows trauma in the absence of direct trauma to the globe. Common causes are long bone fracture, chest compression injuries, and air embolization, childbirth.

**Methods**

Case report. A 13-year-old girl who had multiple ribs fracture following a motor-vehicle accident presented with sudden onset bilateral painless reduced vision for 10 days. Her visual acuity was 6/60 OU. Anterior segment examination was unremarkable. Bilateral fundus examinations revealed extensive polygonal-shaped areas of retinal whitening (Purtscher's flecken) at peripapillary retina with pseudo-cherry-red-spot at the macula. There were also multiple intraretinal haemorrhages with cotton-wool spots at the posterior pole. Otherwise, perivascular and peripheral retina area was spared with no obvious emboli seen in the retinal vessels. Fundus fluorescence angiography showed masking effects that correlated to areas of haemorrhages with multiple areas of capillary fall-out corresponding to Purtscher's flecken area at posterior pole. Optical coherence tomography was not done as imaging is unavailable.

**Results**

Patient was diagnosed with Purtscher's retinopathy. She received intravenous methylprednisolone 250mg QID for 3 days, followed by oral prednisolone 60 mg OD for 11 days. After 2 weeks, her visual acuity remained 6/60 OU. At following visits, fundus examination revealed resolving intraretinal haemorrhages and cotton-wool

spots. However, visual acuity partially improved to 6/45 OD, 6/36 OS at third month follow-up due to macular atrophy.

### **Conclusion**

It is important to include Purtscher's retinopathy as a differential diagnosis in trauma with multiple rib fractures when a patient is presented with reduced vision. Even though there is no definitive treatment, some cases reported good visual response towards high-dose corticosteroid as suggested.

**COSCAB037****THE PREVALENCE OF ASTIGMATISM AMONG 7-YEAR-OLD SCHOOL CHILDREN IN GUA MUSANG DISTRICT: POST COVID-19 HOME CONFINEMENT**

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**Background**

Uncorrected refractive error, including astigmatism remains the major cause of preventable blindness worldwide. The outbreak and spread of the coronavirus disease 2019 (COVID-19) pandemic have greatly impacted education systems worldwide. This study investigated the refractive changes and prevalence of astigmatism in 7-year-old school children in Gua Musang District post COVID-19 home confinement.

**Methods**

In this prospective cross-sectional study, vision screening was conducted on 1832 school children aged 7-year-old, from 13 schools in Gua Musang District, Kelantan. Students that failed the screening were referred to Hospital Gua Musang and undergone cycloplegic refraction.

**Results**

A total of 37 students [33 Malay (89.2%) and 4 Chinese (10.8%)] failed the screening (with visual acuity of less than 6/9). Gender wise, there were 18 males (48.6%) and 19 females (51.4%). The cycloplegic refraction revealed that 9 students (24.3%) had

myopia with astigmatism, 14 students (37.85%) had hyperopia with astigmatism, and the other 14 students (37.85%) had astigmatism only. The prevalence of astigmatism post- COVID-19 home confinement was statistically significantly higher ( $\chi^2=24.96$ ,  $p<0.001$ ) compared to pre-COVID-19 home confinement (3.5% vs 0.3%). When only the astigmatism component was analysed, all students were found to have with-the-rule astigmatism, with 24 students (72.97%) having astigmatism between -1.00DC to -2.75DC, and 10 students (27.03%) having -3.00DC and above. Children with astigmatism showed significantly ( $\chi^2= 1673.6$ ,  $p<0.001$ ) visual impairment (uncorrected visual acuity  $\geq 6/9$ ) compared to children with no astigmatism (97.1% vs 0.1%).

## **Conclusion**

Home confinement during COVID-19 among children appeared to cause a significant astigmatism shift in our study population. Further studies are required to reveal causal relationships with the inter-related factors of near work activity and outdoor activity time.

**COS CAB038****REVIEW OF ENDOPHTHALMITIS CASES IN TAIPING HOSPITAL**

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**Background**

Endophthalmitis may occur after a penetrating trauma, a recent intraocular surgery, an intravitreal injection, or originate from the bloodstream.

**Methods**

Retrospective study. A 3-year retrospective review of patients diagnosed with endophthalmitis that received treatment and follow up from the period between January 2018 and December 2020.

**Results**

A total of 16 eyes of 15 patients were studied. Male to female ratio was 4:1. Most (47%) patients were between 60 to 79 year old with the mean age of 60 years old. There were 15 (93.75%) cases of exogenous endophthalmitis and 1 (6.25%) case of endogenous endophthalmitis. 9 cases (56.25%) were associated with microbial keratitis, 3 eyes (18.75%) had post traumatic endophthalmitis, 1 eye (6.25%) had acute postoperative endophthalmitis, 1 eye (6.25%) had post intravitreal injection and 1 case (6.25%) was due to blebitis. The mean duration of hospitalization was 12 days and the mean follow-up duration was 144 days. Culture and sensitivity were done in all cases where 9 eyes (56.3%) were found to be positive for growth. Gram negative bacteria was the most prevalent causative organism of endophthalmitis in this study. Most patients (81.3%) had visual acuity > 6/60 during the presentation. Intravitreal antibiotic given in 11 (68.8%) eyes and vitrectomy done in 7 (43.8%) eyes. Despite maximal treatment, the visual outcome remained poor (>6/60) in general and 5 eyes (31.3%) ended up with evisceration.

**Conclusion**

Acute endophthalmitis is a rare but potentially devastating condition. Visual prognosis of endophthalmitis is generally poor and is an important cause of ocular morbidity. Hence, prevention is better than cure and prompt treatment is the key.

**COSCAB039****A CASE SERIES OF ORBITAL CELLULITIS WITH DIFFERENT CAUSATIVE ORGANISM**

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**Background**

Infection in the soft tissues of the orbit, posterior to the orbital septum results in orbital cellulitis. It is caused by spread of infection from periorbital structures, intra-orbital, endogenous or exogenous.

**Methods**

Case series.

Case 1 is a 68-year-old Chinese lady, with underlying DM and HPT. She complains of RE swelling, redness, blurred vision. Presenting visual acuity was HM with relative afferent pupillary defect (RAPD) positive on that eye, noted also present of ophthalmoplegia, erythema and chemosis. Anterior and posterior segment were normal.

Case 2 is a 34-year-old Malay gentleman, presented with LE loss of vision with swelling and eye pain. Visual acuity was NPL and eye examination revealed proptosis, ophthalmoplegia, and chemosis. RAPD was also positive. Posterior fundus was normal.

Case 3 is a 56-year-old Malay lady. She has underlying DM. She complains of LE blurring of vision with swelling and redness, while having painful periorbital skin lesions. Her LE visual acuity is 6/18. Examination showed proptosis, ophthalmoplegia and chemosis. Skin lesion was pustule like blister and tender. RAPD was negative. Anterior segment revealed cornea dendritic lesion. Examination posteriorly was unremarkable.

Case 4 is a 48-year-old RVD patient presented with same symptoms and sign with case 3 patient with a vision of 6/60. In all the imaging done, CT scan and MRI orbit and brain, findings showed proptosis, orbital cellulitis and sinusitis. No subperiosteal abscess and brain parenchyma and cavernous sinus were normal.

## Results

The cases comprised of immunocompetent and immunocompromised patients. They presented within one week from onset of symptoms with acute proptosis and ophthalmoplegia. Of the four cases, one was fungal sinusitis origin (case 1), one was systemic meliodosis infection (case 2) and two were viral origin (case 3 and case 4). Imaging of the orbit is an important of diagnostic modality. The case of fungal sinusitis was treated with endoscopic sinus clearance and systemic antifungal, IV Fluconazole and IV Amphotericin B. Others were treated with parenteral antibiotic therapy which were IV Ceftazidime in combination with Oral Co-trimoxazole and IV Ceftriaxone targeted towards the causative organism. The viral origin cases were treated with oral and topical acyclovir, adjunctive with steroid. All the cases improved with treatment.

## Conclusion

The case series highlight the importance of finding out the exact causative organism in orbital cellulitis, so that targeted treatment can be offered to avoid complication.

**COSCAB040****INCIDENCE OF INFECTIOUS ENDOPHTHALMITIS IN TERTIARY CENTRE IN PAHANG BARAT AND PAHANG TENGAH: A 2.5-YEAR RETROSPECTIVE AUDIT**

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**Background**

Infectious endophthalmitis can be divided into two categories exogenous and endogenous. Both categories of endophthalmitis lead to subsequent intraocular inflammation and potentially severe visual loss.

**Methods**

A retrospective study of patients presented with infectious endophthalmitis from January 2018 to June 2021 at Hospital Sultan Haji Ahmad Shah Temerloh.

**Results**

A total of 25 patients with infectious endophthalmitis were study. Male to female ratio was 2.13:1 with mean age 61.9 years (range from 39 to 86 years old). The most common type of infectious endophthalmitis was keratitis-induced (56%) followed by post-operative (24%), post-traumatic (12%) then endogenous endophthalmitis (8%). 64% of patients had prior medical condition including diabetes mellitus, hypertension, ischemic heart disease and chronic kidney disease. The predominant aetiology was gram-positive bacteria (16%) and fungi (16%) followed by gram-negative bacteria (8%). The common organism isolated were Streptococcus, Staphylococcus, Pseudomonas, Fusarium, Aspergillus and Candida. Intravitreal was done for 68% of patients and 4% required pars plana vitrectomy. However, 28% presented with a perforated globe and required evisceration. The final outcomes were: 3/60 to non-perception to light (NPL) was 96% and 6/36 to 6/24 was 4%.

**Conclusion**

These results provide a further understanding of the manner of presentation, organisms involved, and sources of infection in infectious endophthalmitis. A high index of suspicion, early diagnosis, and treatment are crucial to salvage useful vision.

**COSCAB041****DIAGNOSTIC CHALLENGE IN A CASE OF DIFFUSE LARGE B-CELL LYMPHOMA MASQUERADING AS ORBITAL CELLULITIS WITH LITERATURE REVIEW**

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**Background**

Lymphomas of the orbit make up about 1% of non-Hodgkin's lymphoma. B-cell is the most common lymphoid tissue type.

**Methods**

Case report with literature review. A 72-year-old gentleman with underlying Hansen's disease presented with protruding of the right eye associated with redness. Right eye vision was counting finger with positive RAPD finding. Eye examination revealed present of proptosis, chemosis and ophthalmoplegia. Posterior segment examination was normal. CT Scan orbit and PNS was ordered with clinical impression was orbital cellulitis. Findings showed right orbital mass with local infiltration and adjacent osteomyelitic changes. Patient was scheduled for nasal endoscopy and the assessment revealed friable mass at right middle meatus after pus removal. Excisional biopsy was planned. Histopathological assessment of the nasal mass reported features in keeping with diffuse large B-cell lymphoma (DLBCL).

**Results**

Orbital lymphoma and lymphoma of the orbital adnexae are relatively rare lymphomas. They represent the malignant end of the spectrum of lymphoproliferative lesions that occur in the orbit, the conjunctiva and eyelid. Our patient presented initially to us with features suggestive of orbital cellulitis. Computed tomography of the orbit revealed a non-liquefied abscess or possible tumour

occupying the right orbital region. Endoscopic assessment showed a friable mass at the right middle meatus. Owing to the suspicious features and poor clinical response to systemic antibiotics, biopsy was sent during the planned right functional endoscopic sinus surgery and orbital decompression. The histopathological features were in keeping with DLBCL.

## **Conclusion**

DLBCL with varied clinical manifestations have a relatively poor prognosis with rapid visual loss. Therefore, detailed evaluation and assessment with multispecialty effort are warranted for earlier recognition and commencement of treatment to save life and prevent sight loss.

**COS CAB042****CHOROIDAL MELANOMA: WHEN IT IS MORE THAN A MOLE!**

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**Background**

Choroidal melanoma is the most common life-threatening primary intraocular tumour in adults.

**Methods**

Case report. A 55-year-old woman with history of excised benign fibroadenoma, complaint of right blurring of vision and floaters for six months. Examination revealed right vision hand movement and left vision 6/9. She had right eye upper and lower lid hyperpigmented naevi, multiple hyperpigmentation at superior, temporal and inferior sclera with sentinel vessel. Right fundus showed large hyperpigmented lobulated mass at temporal area from 6 to 11 o'clock obscuring macula and pigmented vitreous cells. Examination of left eye and systemic examination was unremarkable. B-scan of right eye revealed collar stud mass with maximum height 12.41 mm, orbital shadowing and high internal reflectivity. Computed Tomography (CT) revealed lobulated homogenous enhancing intraocular lesion seen at right globe measuring 1.4cm x 1.2cm x 1.3cm with no evidence of extension.

**Results**

Patient was co-managed with medical-retina and oculoplastic team. Eventually she underwent enucleation. Histopathological examination showed mixed spindle and epithelioid cell type of choroidal melanoma. Tumour size was found to be 12mm diameter and 10mm of thickness. She was staged as T3aN0M0 (stage IIb).

**Conclusion**

Choroidal melanoma can be fatal in 50% of patients because of metastatic disease. Life expectancy, treatment options and expected vision outcome should be informed to patient. Having a high tendency for metastasis with a poor survival, recognizing choroidal melanoma early with prompt treatment is crucial. Early diagnosis and treatment are life-saving.

**COSCAB043****OUTCOMES OF SUTURELESS RETROPUPILLARY IRIS-CLAW LENS IMPLANTATION IN HOSPITAL SULTANAH AMINAH JOHOR BHARU MALAYSIA**

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**Background**

Retropupillary is one of the options for eyes without capsular support. It remains a challenge in post vitrectomised eyes due to the excessive mobility of the iris and soft eyeball. Apart from intraoperative difficulties, intraocular lens (IOL) power calculation is a challenge in post vitrectomised eyes, and chances of postoperative refractive surprise are not uncommon. This study evaluated the outcomes of retro-pupillary iris-claw IOL implantation with sutureless technique in vitrectomised eye in Hospital Sultanah Aminah Johor Bharu.

**Methods**

A retrospective study of case series of patients that underwent sutureless retro-pupillary iris claw lens implantation in Hospital Sultanah Aminah Johor Bharu from 2019 to 2020. Outcome measures were changes of visual acuity, astigmatism, intraocular pressure (IOP) and documented side effects.

**Results**

The study comprised of 20 eyes. The mean preoperative best corrected visual acuity (BCVA) was 0.4 (SD 0.21). Final BCVA was 0.33 (SD 0.19). The mean preoperative astigmatism was -1.53 D (SD 0.99, min -0.50 max -4.00) while mean postoperative astigmatism at 6 month was -1.90D (SD 1.4, range min -0.25 max -5.25). The mean preoperative intraocular pressure was 14.15 mmHg (SD 3.17; range 11.72–13.86mmHg) while mean postoperative intraocular pressure was 14.75 mmHg (SD 2.60; range 13.50 – 16.12mmHg). Postoperative complications were observed

in 16 eyes. The most common complication was ovalization of the iris, which was observed in 13 eyes.

### **Conclusion**

Retropupillary iris-claw lens implantation with sutureless wound closure has good refractive outcome and low risk of complication.

**COS CAB044****A TINY VISITOR WITH A STORMY PRESENCE**

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**Background**

Diffuse unilateral subacute neuroretinitis (DUSN) is a potentially blinding form of uveitis caused by ocular nematode infestation.

**Methods**

Case report. A healthy 9-year-old boy presented with left eye redness for 1 month and associated with progressive left eye blurring of vision for 3 days. His symptoms began 6 months ago with intermittent floaters and blurring of vision. On presentation, visual acuity in the left eye was 1/60 and 6/9 in the right eye. There was no relative afferent pupillary defect. Examination of the left eye revealed anterior chamber cells 3+ with anterior vitreous cells 2+. Posterior segment examination revealed hyperaemic optic disc, peripheral choroiditis and vasculitis with vascular sheathing. Serial fundus examination showed clusters of migrating choroiditis from inferior to temporal region with suspicious C-shape white lesion resembling a worm in the leading area of choroiditis.

**Results**

He was diagnosed with diffuse unilateral subacute neuroretinitis (DUSN). Oral Albendazole 200mg BD was given and tapering dose of oral prednisolone 1mg/kg for 6 weeks, gutt Maxidex and gutt Vigamox for his left eye. Laser photocoagulation was given over the area of the suspicious worm and choroiditis. On follow up, his left eye vision improved but remain at 6/45 due to presence of epiretinal membrane. Inflammation of the left eye resolved with no further recurrences over 3 months.

**Conclusion**

This case highlights the challenges faced in identifying the nematode in a child with suspected DUSN. It is important to establish the diagnosis early when direct photo-coagulation of the worm with oral antihelminthic has the greatest potential for better visual outcomes.

**COSCAB046****IMPACT OF SCREEN TIME ON REFRACTIVE STATUS IN CHILDREN AGED 3 TO 6 YEARS**

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**Background**

Screen-based gadgets are used for educational, leisure purposes and to calm or distract young children. Prolonged screen time was reported to cause dry eye, eye strain, new onset or progression of myopia among adolescents and adults. This study aims to determine effect of screen time on refractive status, and prevalence of refractive error among children aged 3 to 6 years.

**Methods**

This was an observational cross-sectional study recruiting healthy children aged 3 to 6 years old with screen time exceeding an hour daily, conducted at the Ophthalmology Clinic, UKM Medical Centre. Cycloplegic refraction was performed, and socio-demographic profile, screen time parameters, near work, and outdoor time were obtained from parents or caretaker.

**Results**

Among 127 children (65 males and 62 females), 81.9% were emmetropic, 39.4% astigmatic, 13.4% myopic, and 4.7% hyperopic. Median gadget screen time was 1.9 hours/day, TV time 2.4 hours/day, other near work time 0.9 hours/day, continuous gadget screen viewing time 60 minutes, gadget screen viewing distance 19.0 cm, TV viewing distance 200 cm and outdoor time 4.0 hours/week. No significant correlation was found between the variables and spherical equivalent refraction. Other near work time was found to increase with age, longer among subjects with

younger father and with white collar working mother. Shorter continuous gadget screen time was found in subjects with higher maternal education level.

## **Conclusion**

Among children aged 3 to 6 years old with screen time exceeding an hour daily, prevalence of astigmatism, myopia and hyperopia were 39.4%, 13.4% and 4.7% respectively. There was no significant correlation between screen time parameters, near work, outdoor time and refractive status. Myopia prevalence was significantly higher than previously reported, albeit insignificant correlation with longer gadget screen time. Future studies are warranted to explore other possible risk factors of preschool myopia.

**COSCAB047****A RARE CASE PRESENTATION OF TUBERCULAR NODULAR EPISCLERITIS**

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**Background**

Tuberculosis is an infectious disease caused by the acid-fast bacillus *Mycobacterium tuberculosis* and is an important cause of death worldwide. Tuberculosis most commonly affects the lungs, but has many extrapulmonary manifestations as well, including intraocular involvement in approximately 1% to 2% of patients. Tubercular nodular episcleritis is a very rare presentation and few cases have been reported in the literature.

**Methods**

Case report. An 18-year-old Malay lady with no known medical illness presented with left eye conjunctival swelling for 1 month associated with pain and reduced vision. There was no history of prolonged fever, cough or contact with tuberculosis patients. She had no history of eye pain or redness before. Visual acuity in the left eye was 6/24 with pinhole 6/6 and right eye vision was 6/9. Anterior segment of the left eye showed a localised raised 1x1mm nodule nasally near the limbus, hypopyon less than 1mm with cells 4+. Right eye examination was unremarkable. Fundus examination in both eyes were normal. Blood investigation revealed high erythrocyte sedimentation rate and significant Mantoux test measured 26mm. Other investigations were normal.

**Results**

These investigations lead to the diagnosis of nodular episcleritis with severe anterior uveitis secondary to tuberculosis. She was treated with anti-tubercu-

lous medications. After 2 months follow up, she showed good response and had significant improvement of vision with resolution of episcleritis and uveitis.

### **Conclusion**

Tuberculosis can occur in any site of the eye. High index of suspicion of tuberculosis should be alarmed if nodular episcleritis with severe anterior uveitis present. Early diagnosis and prompt treatment are crucial to prevent progression.

## COS CAB048

### THE BLINDING SCRATCH

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#### Background

*Bartonella henselae* infection is usually a self-limited, neuroretinitis caused by infection usually presents unilaterally.

#### Methods

Case report.

A 30-year-old lady presented with painless progressive blurring of vision of the right eye (RE) for four days. She had history of high-grade fever one week prior to ocular symptoms. She has a vaccinated cat without any history of cat bites. She was afebrile and had no lymphadenopathy or skin lesions. Vision of the RE was 6/60 with no RAPD. Right fundus showed optic disc (OD) swelling with macular oedema, multiple choroiditis at superior and inferior arcuate and a chorioretinal scar nasal to OD without adjacent chorioretinitis. OCT of right macula showed presence of intraretinal fluid (IRF) and subretinal fluid (SRF).

#### Results

*Bartonella henselae* serology was positive for both IgM and IgG with titre of 1:24 and 1:128 respectively. ESR was raised (76 mm/hr) with negative other infective screening. She responded well with oral sulfamethoxazole and trimethoprim 960 mg twice per day for six weeks. Her RE vision improved to 6/9, with resolved optic disc swelling and choroiditis at 8 weeks post treatment.

**Conclusion**

Neuroretinitis is a typical ocular presentation of CSD. Although the disease is self-limiting, variable treatment options can hasten the recovery of the disease with good visual outcome.

**COSCAB049****A CHILD WITH NEAR MISSED INTRAORBITAL MARBLE AFTER AN AWKWARD FALL**

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**Background**

Children are more susceptible to eye injury causing eye morbidity. They are at risk of their careless activities and inability in understanding the nature of dangerous objects. This case report aimed to share a case of a foreign body (marble ball) entrapped intraorbitally through a small lower lid laceration after an awkward fall.

**Methods**

Case report. A 2-year-old child was referred for a right eye tiny lower lid laceration wound after sustained an injury with a single ended polyvinylchloride (PVC) shaft containing a small marble. Ocular examination revealed 2cm deep wound below the right lower lid. Extraocular muscle movement was restricted upon right eye elevation. No relative afferent pupillary defect noted. CT scan of the orbit revealed a spherical shaped high attenuation focus measuring 1.6 x 1.6 cm (AP x W) within the right maxillary sinus extending to the inferior orbital cavity with comminuted fractures of the right anterior maxillary sinus, inferior and medial orbital wall.

**Results**

Patient underwent surgical exploration and removal of the foreign body in collaboration with Otorhinolaryngology team. The patient recovered well after surgery and a course of antibiotic therapy with excellent vision and intact ocular motility.

**Conclusion**

This case initially appeared like a trivial fall with minor lid injury. A thorough history taking, detailed examination and good imaging support had revealed an easily missed radiolucent foreign body.

**COS CAB050****THE MALIGNANT MASQUERADE**

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**Background**

Optic nerve infiltration (ONI) arising from systemic lymphoma is very uncommon. Routes of metastasis to the optic nerve is not well established due to its rarity.

**Methods**

Case report. A 73-year-old gentleman with underlying atrial fibrillation and chronic dyspepsia presented with progressive left eye painful loss of vision for one week. His best corrected vision was 6/15 over right eye and hand movement on the left. Relative afferent pupillary defect was positive on the left with reduced optic nerve functions. Fundus examination was insignificant. Magnetic resonance imaging of brain and orbit showed left optic nerve tortuosity and thickening without enhancement.

**Results**

Findings progressed, a week later he developed LE optic disc swelling significantly at the superotemporal margin with splinter haemorrhage. Hence, diagnosis of non-arteritic anterior ischemic neuropathy (NAION) with the differential of masquerade syndrome was made. An inpatient OGDS was performed for his chronic dyspepsia, showing multiple gastric erosions which was biopsied and eventually revealed high grade T-cell lymphoma. Ocular diagnosis was revised to ONI with systemic lymphoma. Cerebrospinal fluid revealed no malignant cells; however, the patient refused optic nerve biopsy.

**Conclusion**

In cases of isolated ONI, diagnosis can be challenging especially if it is an initial presentation of systemic lymphoma due to broad differential diagnosis. Optic nerve functional outcome is poor, however early initiation of treatment might improve clinical outcome.

**COSCAB051****SIGHT-THREATENING DIABETIC RETINOPATHY AND ASSOCIATED RISK FACTORS IN HOSPITAL SULTANAH NUR ZAHIRAH (HSNZ), TERENGGANU FROM YEAR 2018 TO 2020**

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**Background**

Sight threatening diabetic retinopathy (STDR) is a microvascular complication of diabetes in the eye. It is one of the leading causes of preventable irreversible blindness among working age group globally. The aim of this study was to determine the proportion of STDR among new diabetic patients at Eye Clinic, HSNZ from 2018 until 2020 and its associated risk factors.

**Methods**

This is a retrospective study on new diabetic patients who was diagnosed with STDR upon first visit. Demographic data, duration of diabetes, level of HbA1c, comorbidities and treatment given were retrieved from electronic medical records and analysed using SPSS version 26.

**Results**

Within that 3 years, 480(20.2%) out of 2380 new diabetic patients seen were identified to have STDR. Majority of them (97.3%) were type 2 diabetes (T2DM) patients and most were in the age group of 40-59 years old (61.3%). Hypertension was the commonest comorbid (66.9%). Proliferative diabetic retinopathy (PDR) was seen in 42.4% eyes, followed by diabetic macula oedema (DME) 25.9%, advanced diabetic eye disease (ADED) 17.5% and severe non proliferative diabetic retinopathy (NPDR) 14.2%. Mean HbA1c was 9.89±2.88. Longer duration of diabetes was significantly associated with PDR (OR=1.508,95%CI:1.04–2.186), (p<0.05). 51.8% of eyes received

pan retinal photocoagulation (PRP), 4.3% planned for intravitreal anti vascular endothelial growth factor injection, and 7.3% decided for diabetic vitrectomy.

## **Conclusion**

20.2% of new diabetic patients at Eye Clinic, HSNZ presented with STDR. Majority are in the working age group. Regular screening of diabetic retinopathy is important to ensure early detection and timely treatment to prevent low vision and blindness secondary to neglected STDR.

**COSCAB052****SURGICAL OUTCOMES OF BAEVAELDT GLAUCOMA IMPLANT (BGI) IN SELAYANG HOSPITAL**

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**Background**

Refractory glaucoma is defined as uncontrolled intraocular pressure with evidence of optic nerve damage with or without visual field deterioration despite maximally tolerated anti-glaucoma medications, previously failed non-seton surgical treatment, or a combination of surgery and medicines or a high risk of failure of trabeculectomy. It is difficult and challenging condition to manage. Glaucoma drainage implant has gaining role in surgical management of refractory glaucoma. This is case series to report a one year follow up of glaucoma patients who underwent Baeveldt Glaucoma Implant (BGI) in Selayang Hospital.

**Methods**

Retrospective, case series. Review of patients aged between 24 to 73 years old that had undergone BGI surgery between July 2015 to March 2019. Success rate was defined as complete when the intraocular pressure (IOP)  $\geq 6$  and  $\leq 21$  mmHg without anti glaucoma medication. Success rate was defined as qualified if those requiring additional anti glaucoma medications were included.

**Results**

A total of 20 eyes of 19 patients were included. Five patients had primary glaucoma and the remaining cases were secondary glaucoma. Primary outcome measure was IOP and secondary outcome measures were antiglaucoma medications and post-operative complications. Average pre-operative IOP was  $19.67 \pm 7.65$  mmHg and

average post-operative IOP was  $11.11 \pm 4.43$  mmHg. Five eyes achieved complete success and 14 eyes reached qualified success while one patient lost to follow up. Patients had stent removal at average 41 days with standard deviation  $\pm 27$  days. Three patients developed post-operative complications. One had cornea decompensation, one had re-detachment of rhegmatogenous retinal detachment in which patient underwent vitrectomy, and one developed phthisis bulbi.

## **Conclusion**

BGI is an effective treatment for control of intraocular pressure in glaucoma patients.

**COS CAB053****PREVALENCE OF FOREIGN BODY RELATED CORNEAL ULCERS IN HOSPITAL SULTAN HAJI AHMAD SHAH TEMERLOH PAHANG**

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<sup>1</sup>*Hospital Sultan Haji Ahmad Shah Temerloh Pahang*

**Background**

Corneal ulcer is a major cause of blindness throughout the world. Foreign body related corneal ulcers cause significant visual impairment. It is an important preventable morbidity.

Majority of the foreign body related corneal ulcers are from vegetative materials. The aim of the study was to identify the incidence of corneal ulcer associated with foreign body in Hospital Sultan Haji Ahmad Shah Temerloh Pahang.

**Methods**

Retrospective study. All cases of foreign body related corneal ulcer presenting over 6 months period (January to June 2020) were identified by retrospective review of case notes.

**Results**

The number of foreign body-related corneal ulcer encountered from January 2020 until June 2020 were 20. Male patients were more frequently involved compared to female with ratio 19:1. The mean age was 46 with range of 28 to 65 years. The common foreign body related corneal ulcer was oil palm dust 8 (40%), grass 3(15%), dust 3(15%), unknown 3(15%), tree branch 1(5%), stone 1(5%) and sand 1(5%). The commonest presenting symptoms was eye redness 20 (100 %) followed by blurring of vision 19 (95%), eye pain 19 (95%) and eye discharge 8 (40%). The presenting visual acuity was  $\leq 6/60$  in 9 (45%),  $6/18-6/36$  in 10 (50%) and  $\geq 6/12$  in 1 (5 %) of the patients. Only 5 (25%) of the patients corneal scraping grew positive culture. Common infective agents are *Pseudomonas aeruginosa* 3(15%) and *Fusarium sp* 2(10%). At 1

month follow up, 8 (40%) showed improvement of visual acuity, 6(30%) had showed no improvement and the remaining defaulted follow up.

### **Conclusion**

In this study, oil palm dust is the main foreign body for foreign body related corneal ulcers. Continuing education to the public is required to prevent occurrence of foreign body related corneal ulcer.

**COS CAB054****EPIDEMIOLOGICAL CHARACTERISTICS, PREDISPOSING FACTORS AND MICROBIOLOGICAL PROFILES OF INFECTIOUS CORNEAL ULCERS IN HOSPITAL SULTAN HAJI AHMAD SHAH**

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<sup>1</sup>Hospital Sultan Haji Ahmad Shah Temerloh Pahang

**Background**

Corneal ulcer is an important cause of ocular blindness. It is therefore essential to recognize this condition rapidly so that prompt treatment can be initiated. The aim of the study was to identify the epidemiological characteristics, predisposing factors, and the clinical and microbiological diagnosis of corneal ulcers in Hospital Sultan Haji Ahmad Shah (HoSHAS).

**Methods**

A retrospective study of the patients presenting with corneal ulcers required admission to ophthalmology ward (ward Bunga Raya 2A), HoSHAS, between January and June 2019.

**Results**

A total of 32 patients presented with infectious corneal ulcers, with a mean age of 47 years (ranged from 18 years old to 83 years old) and male predominance (78.1%). Foreign body was the main predisposing factor in 20 patients (62.5%) followed by contact lens in 3 patients (9.4%) and post operation with loose suture in 3 patients (9.4%). One patient developed corneal ulcer secondary to dry eye (3.1%). Five patients had unknown aetiology (15.6%). Only 9 out of 32 (28.1%) patients' corneal scraping yield an organism with predominance of *Pseudomonas aeruginosa* (55.6%), followed by *Fusarium sp* (22.2%) and *Staphylococcus aureus* (22.2%). Twenty patients (62.5%) presented early (in less than 1 week) for treatment and the remaining presented more than 1 week. Seventeen patients (53.1%) showed improvement of

the corneal infiltrate within 1 month. Only 14 patients (43.8%) had improvement in visual acuity within 1 month. The remaining had poor visual outcome due to corneal scarring. Only 1 patient (3.1%) developed corneal perforation.

## **Conclusion**

Foreign body remains the most important risk factor for infectious corneal ulcers. Reduction of the rate and severity of infectious keratitis requires continuous education of patients and of professionals.

**COSCAB057****HEADACHE: IS IT THAT SIMPLE?**

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**Background**

It is essential not to miss any severe diseases in a patient presenting with chronic headaches.

**Methods**

Case report. A 55-year-old lady complained of a persistent frontal headache for four months associated with on and off nausea and vomiting. Otherwise, she did not complain of numbness or weakness. She went to three different health clinics and emergency departments. She was diagnosed with migraine and discharged with headache/migraine relief medications. No eye examination was done at that time. Subsequently, she developed bilateral eye blurring of vision and was referred to the eye clinic for cataract. Examinations showed significant visual loss with right eye non-perception to light and left eye perception to light, pupil showed a sluggish reaction, and fundus showed features of Foster-Kennedy syndrome. In addition, the olfactory nerve was also affected. Computed tomography scan revealed a large bifrontal mass with central necrosis and perilesional oedema, causing midline shift and acute obstructive hydrocephalus.

**Results**

Craniotomy and removal of tumour were done successfully. Histopathology examination showed bilateral olfactory groove meningioma. Neurologically she recovered well. Unfortunately, she was unable to regain her vision.

**Conclusion**

Ophthalmology assessment is essential in chronic intractable headaches. Early diagnosis and prompt treatment can save lives and yield favourable visual outcome.

**COS CAB060****AN INSIDIOUS CAUSE OF EPIPHORA**

Khy CY<sup>1</sup>, Veera Ramani<sup>1</sup>

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**Background**

Mucoceles are the most common benign lesions that produce expansion of the paranasal sinuses. Approximately 90% occur in the fronto-ethmoidal sinuses.

**Methods**

Case report. A 52-year-old gentleman with no known medical illness presented to our Ophthalmology clinic with complaints of persistent left eye tearing for four months with no other ocular symptoms. Incidentally, we noticed he had vertical dystopia of the left eye and a non-pulsatile, inferolateral proptosis, measuring 3mm more than his right eye, using Hertel's exophthalmometer. Left eye extraocular movements were restricted superiorly and his left eye appeared congested. Other ocular and systemic examinations were normal. Left eye syringing test was carried out which revealed left partial nasolacrimal duct obstruction. His thyroid function tests were normal. His plain orbital computed tomography scan (CT-Scan) revealed a left fronto-ethmoidal mucocele, eroding the roof and medial wall of the left orbit.

**Results**

He was referred for an ENT consult and underwent endoscopic sinus surgery. Four months post-surgery, his symptom of epiphora was gradually improving. Examination revealed resolved left eye proptosis and his left extraocular movements were back to normal.

**Conclusion**

Tearing, a common ophthalmic complain can be secondary to an insidious cause. The patient's dystopia and proptosis may not have been detected if he deemed tearing to be a trivial symptom and did not come for an ophthalmology consult. Paranasal mucoceles should not be missed as early surgical intervention could possibly circumvent significant morbidity and mortality for the patients.

**COS CAB061****BILATERAL OPTIC DISC SWELLING SECONDARY TO ALL-TRANS RETINOIC ACID (ATRA) INDUCED INTRACRANIAL HYPERTENSION IN LEUKEMIC YOUNG MALE**

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**Background**

All-trans retinoic acid (ATRA), a vitamin A derivative, is used as a first-line drug for acute promyelocytic leukaemia (APML). We would like to report a rare case of ATRA induced intracranial hypertension in a young leukemic male who presented with bilateral optic disc swelling.

**Methods**

Case report. A 17-year-old male was diagnosed with APML and started on ATRA and Idarubicin. He presented with right eye sudden blurring of vision and floaters for one day on day 13 of ATRA. He also experienced mild headaches and tinnitus. Right eye vision is 6/18 with pinhole 6/12, and left eye vision is 6/36 with pinhole 6/18. There is no relative afferent pupillary defect. Fundus examination showed bilateral optic disc swelling and scattered pre retinal haemorrhages involving the macula. A computerized tomography scan of the brain and orbit was normal.

**Results**

A lumbar puncture was performed. Opening pressure was 38 cmH<sub>2</sub>O. ATRA was withheld from the treatment, and the patient was started on Acetazolamide 250mg TDS and topical nepafenac TDS. Opening pressure on repeated lumbar puncture was 14 cm H<sub>2</sub>O. Upon follow up, his headache and tinnitus disappeared, and optic disc swelling improved.

**Conclusion**

ATRA, as a first-line treatment in APML, may induce intracranial hypertension and hence may cause bilateral optic disc swelling.

**COS CAB062****LONG, FLAT AND CLOSED!**

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**Background**

Plateau iris syndrome (PIS) was first described in the 1958 to illustrate the iris configuration. It is now noted that PIS is a caveat of an anatomical and positional abnormalities of the iris that may cause shallowing of the anterior chamber despite a patent iridotomy. This ocular condition is commonly seen in the younger hyperopic female adults. This case report is about a case of primary angle closure glaucoma due to plateau iris syndrome in a myopic eye.

**Methods**

Case report. A 76-year-old Chinese gentleman presented with a 3-month history of worsening bilateral blurring of vision. His visual acuity was 6/9 in the right eye and 6/12 in the left eye. Intraocular pressure (IOP) was elevated at 22 and 24 mmHg, respectively. Optical coherence tomography (OCT) of the optic nerve head showed slight thinning of the superior retinal nerve fibre layers (RNFL) in both eyes.

**Results**

He was diagnosed with primary angle closure glaucoma and bilateral YAG laser peripheral iridotomy (PI) was performed. However, the pressures were still high at 23 and 26 mmHg respectively despite patent PI. Anterior segment OCT showed a plateau iris configuration in both eyes and ultrasound biomicroscopy (UBM) revealed features of PIS. In view of this, argon laser peripheral iridoplasty (ALPI) was performed in both eyes. Repeated gonioscopy showed open angles in both eyes.

**Conclusion**

This case demonstrates the importance of UBM in aiding the diagnosis PIS. ALPI was very effective in both opening the angles and the control of IOP. It is also shown in this case that a single successful treatment is all that is needed for long lasting effects.

**COSCAB063****PAEDIATRIC IRIS CYSTS: A CASE SERIES**

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**Background**

Paediatric iris cysts are often diagnosed in early childhood or infancy. Some require only observation, but the severe form needs surgical intervention to prevent poor visual prognosis.

**Methods**

Case series of iris cysts in children presenting between October 2018 and April 2021 in HKL. All patients presented were between 1 year 8 months to 18 years of age. The main presenting symptoms were eye discomfort, redness and reduced visual acuity. All patients had a unilateral iris cyst located inferonasally of varying sizes measuring between 6 to 12mm in diameter. The lens were cataractous in all patients. Imaging was done in 3 of the patients to exclude malignancy. Laboratory results including tuberculosis work up were negative.

**Results**

Two of these patients required topical antiglaucoma agents for secondary high intraocular pressure. Steroids were initiated to reduce anterior chamber inflammation. 4 out of 5 cases underwent therapeutic and diagnostic iris cyst aspiration or excision. The other had close observation after the cyst had spontaneously ruptured and regressed. One case with a large cyst obscuring the visual axis simultaneously underwent endo-cautery and sectoral iridectomy for visual preservation. Another was treated with Argon laser post cyst drainage to prevent reaccumulation of fluid. Cytology samples came back negative and thus treated as benign iris cysts. To date,

none of these cases had cyst recurrence. Despite surgical aspiration, vision of all patients remained poor due to development of cataract or corneal opacity.

### **Conclusion**

Iris cyst in paediatric age group is uncommon. The management of these cases need to be individually tailored. Furthermore, it is clinically challenging to differentiate benign iris cyst from malignancy and a high index of suspicion is needed.

**COSCAB064****COMPLIANCE OF PATIENTS WITH NEWLY DIAGNOSED PROLIFERATIVE DIABETIC RETINOPATHY (PDR) TO PANRETINAL PHOTOCOAGULATION (PRP) AND THEIR VISUAL OUTCOME DURING COVID-19 PANDEMIC IN YEAR 2020**

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**Background**

Diabetic eye disease is the second common cause of blindness in Malaysia. Early detection of PDR with early PRP intervention are essential to prevent severe ocular comorbidity. However, this become challenging during Covid-19 pandemic as movement of the patients are restricted and referrals are reduced.

**Methods**

Retrospective study of 123 patients, newly diagnosed with PDR during first visit to Eye Clinic Hospital Raja Permaisuri Bainun (HRPB) in year 2020.

**Results**

One-third (40) of the patients defaulted minimally once during PRP sessions and 83 patients (67.5%) complied fully with the sessions. Two-third of patients (81) were able to complete the full PRP sessions and 42 (34%) patients did not, either defaulted the planned PRP session or worsen to vitreous haemorrhage and advance diabetic eye disease. Retrospective review of 95 patients' records revealed that 64 (67%) patients have PDR regressed. Further analysis of 68 patients on their visual changes at 3 months post complete PRP, showed that 18 (26.5%) patients had their vision improved by at least a line and 8 (11.8%) patients' visions deteriorated by 2 lines or more.

**Conclusion**

High defaulter rate to planned PRP during the Covid-19 pandemic will result in major ocular morbidity and costly vitreoretinal surgical intervention. Hence, a vigilant plan and action should be taken to improve the compliance rate especially in young productive group.

**COSCAB066****VINCRIStINE INDUCED OPTIC NEURITIS, A DIAGNOSIS NOT TO BE MISSED**

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**Background**

Drug-induced optic neuritis is very rare. Its atypical presentation can be caused by cytotoxic medication including vincristine as reported in this case with underlying T-cell acute lymphoblastic leukaemia (ALL).

**Methods**

Case report. A 17-year-old male with underlying T-cell ALL presented with acute painful blurring of vision over right eye one month after completing chemotherapy. The best corrected visual acuity (BCVA) was 6/30 and 6/7.5 over right eye and left eye respectively. Examination of right eye revealed relative afferent pupillary defect (RAPD) and deranged optic nerve function. Anterior segments and posterior segments findings were normal bilaterally. Systemic examinations were unremarkable. MRI brain and orbit showed hyperintensities over bilateral optic nerves and deep white matters, suggestive of neuromyelitis optica (NMO). The MRI spine was normal. No malignant cell was detected in cerebrospinal fluid (CSF) suggesting leukemic infiltration. Serum aquaporin and CSF oligoclonal band were not detected.

**Results**

Diagnosis of right demyelinating optic neuritis was made and intravenous methylprednisolone commenced. Subsequently, his BCVA and optic nerve function normalized. He was continued with vincristine maintenance chemotherapy. After three months, he presented with similar complaints over the contralateral eye. The BCVA was 6/9 over right eye and CF over left eye. Examinations of left eye revealed RAPD, deranged optic nerve function and swollen optic disc. In view of recurrence,

no systemic relapse and negative results for demyelination, diagnosis of vincristine induced optic neuritis was made. His optic nerve function and vision normalized upon withholding of vincristine and completion of methylprednisolone.

### **Conclusion**

Leukemic infiltration must be ruled out to avoid fatal consequences. However, diagnosis of chemotherapy related optic neuritis should be considered as early diagnosis and timely management can prevent further visual deterioration.

**COS CAB067****A STITCH IN TIME SAVES NINE: CASE SERIES OF CENTRAL RETINAL ARTERY OCCLUSION**

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**Background**

Central retinal artery occlusion (CRAO) is an ophthalmic emergency and the ocular analogue of cerebral stroke. Patients typically present with profound, acute, painless monocular visual loss. While 90% of CRAOs are non-arteritic in origin, the remaining 10% are arteritic, mainly caused by giant cell arteritis (GCA), a vasculitic disorder causing inflammation of blood vessels.

**Methods**

Case series.

Case 1: A 72-year-old gentleman, presented with acute, painless bilateral sequential vision loss within four days of duration. RE vision was HM and LE vision was 6/24. Relative afferent pupillary defect (RAPD) was positive. Anterior segment was normal. Fundus examination showed oedematous, pale retina and a cherry red spot. Inflammatory marker showed raised erythrocyte sedimentation rate. Temporal artery biopsy was performed and revealed features consistent with temporal arteritis.

Case 2: A 59-year-old lady with newly diagnosed hypertension, presented with right eye sudden, painless loss of vision. She denied headache, scalp tenderness, or jaw claudication. Left eye vision was not affected. Systemic examination was unremarkable. Her RE vision was CF, normal anterior segment findings. Right eye fundus examination showed intraretinal haemorrhages, tortuous vessels and a cherry red spot. No visible emboli seen. Inflammatory markers were not raised. ECHO and carotid doppler findings were insignificant.

## **Results**

In both cases presentation of CRAO was managed accordingly to find the cause. As in case 1 on the diagnosis of GCA has been established by temporal artery biopsy. Prompt referral was made to internal medicine team and IV Methylprednisolone 250mg stat and daily was instituted. For case 2, the presentation was not typical of GCA. All investigations results were normal. For that she was started on antiplatelet medication as a protective measure for the good eye.

## **Conclusion**

Prompt diagnosis and early treatment of GCA are vital to prevent further visual loss in the contralateral eye as demonstrated in case 1. It is essential that accurate treatment is given before any irreversible complications occur. Case 2 illustrates the other spectrum of CRAO with a less devastating outcome.

**COSCAB069****SOLAR RETINOPATHY REVEALING PSYCHIATRIC DISORDER IN A PATIENT WITH HISTORY OF SUNGAZING**

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**Background**

Solar retinopathy is retinal damage resulting from direct or indirect solar observations during a solar eclipse or on a normal day. Solar retinopathy due to sungazing practice has been reported among schizophrenia and bipolar affective disorder patients. This is to present a rare case of solar retinopathy in a patient who indulged in sungazing as part of psychiatric illness manifestation.

**Methods**

Case report. A 31-year-old man presented with bilateral reduced vision for 2 weeks duration. His vision was 6/12 OU. A reddish hue lesion (cherry red spot) was identified at foveolar region which mimicked a fundus of macular hole. There was loss of outer retinal layers in optical coherence tomography (OCT) macular imaging. Further history found that the man had been practising sungazing for the past few months. He routinely gazed at the sun several times a day for 5 minutes per gazes. He confessed that sungazing made him feel good spiritually. However, he denied performing it for religious purposes and denied recreational drug usage. Collateral history from his sister confirmed that he has underlying psychological symptoms. He had been having low mood and feeling depressed, and sometimes seen talking alone for the past 2 years. His sister recalled seeing him portraying aggressive behaviour when he was seen throwing things in the house and punching his car out of anger.

**Results**

Patient was diagnosed to have solar retinopathy. He was educated for eye protection. So far, there is no specific treatment available for this condition. He also was referred to psychiatry team for evaluation and further management of his psychiatric disorder and to initiate proper counselling and education.

**Conclusion**

Sungazing leading to solar retinopathy is an irreversible condition. This practice could be a psychiatric manifestation. Therefore, it is crucial to rule out psychiatric disorder in cases of solar retinopathy.

**COSCAB072****THE BLACK EYEBROW**

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**Background**

Orbital emphysema may cause an orbital compartment syndrome, leading to exophthalmos, increased IOP, and optic nerve stretching; compression which can lead to irreversible blindness.

**Methods**

Case report. A 29-year-old gentleman with underlying allergic rhinitis was referred to the ophthalmology team for progressive painless periorbital swelling of the right eye aggravated by nose blowing. He had a history of blunt trauma one day prior to the presentation. Visual acuity was unaffected and optic nerve function test was unremarkable. There is a presence of right upper lid swelling with crepitations, right hypoglobus with restricted upgaze movement and right conjunctival injection. Anterior segment examination over the left eye was normal. Both eyes intraocular pressure was within normal limits. Posterior segment examination over bilateral eyes were normal as well. Plain skull radiograph reveals “black eyebrow sign” over the right orbit with no obvious orbital wall fracture.

**Results**

Computed tomography of the orbit shows focal indentation over right lamina papyracea with superior orbito-palpebral emphysema. A diagnosis of orbital emphysema was established. He was treated with oral cefuroxime for a week, steroid nasal spray and oral antihistamine with prohibition of nose blowing. He was followed up on post trauma day 5, he made a complete recovery.

**Conclusion**

This case highlights the importance and value of high clinical suspicion, examination and plain skull radiograph at the primary care setting to diagnose orbital emphysema whereby timely referral can be made to the ophthalmology team. Orbital emphysema should always be considered as a differential diagnosis for periorbital swelling especially if there was a history of trauma of any severity.

**COS CAB074****PREVALENCE AND CAUSES OF LOW VISION AND BLINDNESS IN OPHTHALMOLOGY DEPARTMENT, MIRI HOSPITAL, SARAWAK**

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**Background**

Prevalence and causes of Low Vision and Blindness have been studied nationally and globally. However, similar studies have not been conducted locally in Sarawak. This study is to identify the prevalence and causes of low vision and blindness patients of different gender, age and ethnicities in the Ophthalmology Department, Miri Hospital, Sarawak, from 2016 to 2020.

**Methods**

Retrospective analysis. The patient records of 17,868 in the Ophthalmology Department, Miri Hospital, from 2016 to 2020 were screened. The information as date of notification, age, gender, ethnicity and the main cause of Low Vision and Blindness diagnosed by Ophthalmologists or Trained Medical Officer were recorded in the data collection form.

**Results**

The prevalence of low vision and blindness is 1.5%. The majority of subjects (187, 69.5%) were fell in the age of 51 years old and above. 151 (56.13%) subjects are male while 118 (43.87%) females. Ethnic Iban has the highest prevalence of low vision and blindness (88, 32.7%), followed by Chinese (81, 30.1%), Malay (53, 19.7%) and other local natives (17, 5%). The four main causes of Low Vision and Blindness are diabetic retinopathy (67, 24.9%), glaucoma (66, 24.5%), retinitis pigmentosa (27, 10%) and age-related macular degeneration (17, 6.3%).

**Conclusion**

Diabetic retinopathy, glaucoma, retinitis pigmentosa and age-related macular degeneration can be detected earlier by promoting health information, increasing awareness and providing eye screening of the diseases. For the diagnosed with Low Vision and Blindness, rehabilitation services should be integrated into all government hospitals that function as an accessible resource for the patients and family members.

**COSCAB075****A RARE CASE REPORT OF TOLOSA-HUNT SYNDROME IN HOSPITAL SELAYANG**

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**Background**

Painful ophthalmoplegia is a common presentation of Tolosa-Hunt syndrome. Knowing that, it is still a diagnosis by exclusion after all the inflammatory or life-threatening condition that contributed to this orbital apex syndrome have been rule out.

**Methods**

Case report. A 34-year-old lady with history of migraine headache since age of 15, presented with acute binocular horizontal diplopia, right painful ophthalmoplegia on elevation and depression gaze. Her right eye visual acuity has dropped, relative afferent pupillary defect was absent. Anterior segment and fundus examination was unremarkable. Left eye examination is normal. No abnormality detected on visual field examination. CTA brain and CECT orbit showed right orbital apex inflammatory soft tissue lesion with right cavernous sinus thrombosis. No CT evidence of focal enhancing brain lesion or aneurysm.

**Results**

Diagnosis of Tolosa-Hunt syndrome was made. She was admitted and started with Intravenous hydrocortisone 200mg stat and 100mg TDS for five days then converted to oral prednisolone 1mg/kg OD. Her vision returned to normal and ophthalmoplegia resolved at the end of 2 weeks of steroid treatment

**Conclusion**

Tolosa-Hunt syndrome is a rare disorder with a reported incidence of one in million individuals per year and symptoms can resolved with oral corticosteroid.

**COS CAB076****A RARE COMBINATION OF RETINAL GLIONEURONAL HAMARTOMA WITH COMBINED HAMARTOMA OF RETINAL AND RETINAL PIGMENTED EPITHELIUM (CHRRPE) IN THE SAME EYE**

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**Background**

Retinal tumours in children can be benign or malignant. Dilemma of diagnosis usually end up with scarifying the eye. As for retinal glioneuronal hamartoma with combined hamartoma of retinal and retinal pigmented epithelium (CHRRPE), the presentation is very rare.

**Methods**

Case report. An 11-year-old girl with no known medical history and normal birth history was referred to us for possible retinoblastoma. She had left eye leukocoria and poor vision for one-year duration. On examination of the left eye, her visual acuity was no perception of light with positive relative afferent pupillary defect and exotropia. Anterior segment examination showed band keratopathy, superficial and deep vascularization in the cornea. In addition, a whitish mass originating and pushing from posteriorly filled the flat anterior chamber up to the corneal endothelium, obscuring the pupil. Right eye was unremarkable. B-scan showed left eye funnel-shaped retinal detachment with calcification. Computed tomography scan of orbit and brain showed left intraocular mass involved more than 90% of globe with calcification, with no extraocular extension.

**Results**

Left eye enucleation was done to rule out malignancy. Histopathological examination revealed retinal glioneuronal hamartoma combined with hamartoma of retina and

RPE. Immunohistochemistry tests were positive for CD56, S-100 protein and glial fibrillary acidic protein.

### **Conclusion**

It is a unique combination of retinal glioneuronal hamartoma with CHRRPE in the same eye. Despite the initial clinical and radiological diagnosis suggestive of retinoblastoma, the histopathological examination is mandatory to obtain the definitive diagnosis of the tumour.

**COS CAB078****TWO-YEAR AUDIT ON PHACOMORPHIC GLAUCOMA IN HOSPITAL TAIPING**

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**Background**

Phacomorphic glaucoma is one of the lens-related complications of cataract when patients present late.

**Methods**

Retrospective review of the medical record of patients presenting to the Eye Clinic, Hospital Taiping from January 2019 to November 2020. Patients with underlying eye trauma were excluded. The statistical analysis was performed using Microsoft Excel.

**Results**

There were 12 cases of phacomorphic glaucoma during the specified study period. The mean age was  $63 \pm 11.56$  years old. The percentage of ethnicity was Malay 7 (58.3%), Chinese 3 (25%), and Indian 2 (16.7%). 7 (58.3%) patients were male and 5 (41.7%) patients were female, with female to male ratio of 1:1.4. The mean presenting intraocular pressure (IOP) was  $48.33 \pm 13.87$  mmHg. The mean IOP post-operatively was  $18.68 \pm 11.05$  mmHg. Ten (83.33%) patients did not need the long term antiglaucoma, while 2(16.67%) patients with persistent high IOP postoperatively required antiglaucoma eyedrop. 11(91.67%) patients had good best corrected visual acuity (BCVA) postoperatively which was 6/15 and better. Six (50%) of them were operated in less than 1 week duration from the presentation, four (33.33%) of them was within 1 week to 1 month duration, and one (8.33%) of them was operated in more than 1 month duration from the presentation. 1(8.33%) patient had BCVA >6/60 due to cornea decompensation. 3(25%) patients had retinal haemorrhage postoperatively due to sudden reduction of IOP which lasted for few weeks, before

complete resolution achieved. Subsequently, at 6 weeks postoperative, 4 (33.33%) patients had pale optic disc.

### **Conclusion**

Phacomorphic glaucoma is common among patients more than 60 years old. Early presentation and treatment are important as it can give a better visual prognosis to the patients. We observed some patients developed retinal haemorrhage, but it does not correlate with final visual acuity and optic nerve function.

**COS CAB079****AN UNUSUAL CLEFT THAT THREATENS SIGHT**

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**Background**

Cyclodialysis cleft occurs due to disinsertion of the longitudinal ciliary muscle fibres from the scleral spur. It creates an abnormal pathway between the anterior chamber and the suprachoroidal space which predisposes the eye to ocular hypotony. This case report highlighted a case of cyclodialysis cleft complicated with hypotony maculopathy.

**Methods**

Case report. A 26-year-old man complained of right eye pain and blurring of vision following a motorbike accident. His right eye vision was 6/60 and left eye was 6/6. He was diagnosed to have corneal abrasion, traumatic hyphema, commotio retinae and inferior orbital wall fracture with no muscle entrapment secondary to right eye blunt trauma. Left eye was normal. After one week trauma, the right eye vision not improved, corneal abrasion and hyphema resolved. The intraocular pressure (IOP) was 03mmHg. Fundus showed slight hyperaemic optic disc with macular striation, vitreous was clear. Findings of left eye were normal.

**Results**

At 6 weeks assessment, the optic disc became swollen with macula oedema and worsening of striation. He was investigated to rule out the others possibility causing the optic disc swelling. All investigation findings were normal. Gonioscopy of the right eye done this time and showed separation of ciliary body from scleral spur at 2-5 o'clock region with other angles closed. The left eye gonioscopy showed open angle at all 4 quadrants. An anterior segment optical coherence tomography (AS-OCT) revealed present of cyclodialysis cleft. The right eye vision remained poor

with persistent hypotony and a shallow anterior chamber. He was then referred to glaucomatologist for further management.

### **Conclusion**

Cyclodialysis cleft is rare, but it can occur in blunt ocular trauma with persistent hypotony. Gonioscopy and AS-OCT are useful tool for diagnosis.

**COS CAB080****IT MADE ME BLIND**

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**Background**

Diabetic mellitus is one of the leading causes of morbidity and mortality due to its complication of end-organ damage. When associated with diabetic retinopathy, retinal vessel occlusion is a severe form of ophthalmic pathology that can lead to irreversible blindness.

**Methods**

Case report. A 66-year-old man with underlying hypertension and diabetes mellitus complicated with chronic kidney disease stage 5 and a history of Ray's amputation presented with a blurring of vision right eye. The examination noted unequal diabetic retinopathy changes in both eyes (right eye moderate diabetic retinopathy and left eye no diabetic retinopathy) with bilateral eye cataract. He underwent uneventful bilateral cataract operation. Carotid ultrasound revealed bilateral carotid arteriosclerotic disease.

**Results**

Subsequently, the patient developed worsening of right eye vision and was diagnosed with right eye old branch retinal vein occlusion. Six months later, the patient developed left eye non-arthritis ischemic optic neuropathy with best corrected vision 6/12. The patient's right eye vision deteriorates over the next few months and new vessels were detected over the right eye. Laser was commenced. He came back eight months later with right eye advanced diabetic eye disease with vision perception of light all four quadrant. Vitreoretinal referral was done however suggested for conservative management.

**Conclusion**

Diabetic retinopathy with retinal vascular disease may cause early progression of blindness.

**COS CAB082****TRANSCLERAL CYCLOPHOTOCOAGULATION TREATMENT IN NEOVASCULAR GLAUCOMA: A RETROSPECTIVE REVIEW FROM HTAR, KLANG**

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**Background**

Neovascular glaucoma (NVG) is a refractory secondary glaucoma with a prevalence of 0.7–5.8% in Asia. A major arm of treatment is aimed at lowering the intraocular pressure (IOP). Recent studies suggest diode laser transcleral cyclophotocoagulation (TSCPC) as a primary treatment for any stage of glaucoma. This study explored the treatment outcomes of limited and complete TSCPC in NVG.

**Methods**

This is a retrospective study involving 29 eyes of 27 patients with NVG who had diode laser TSCPC performed between the year 2018 to 2021. Subjects were further divided into limited TSCPC 180 degrees (18 eyes) and complete TSCPC 270 degrees (11 eyes) groups. Results were analysed with SPSS version 26.

**Results**

For limited TSCPC, the mean pre-treatment and one-month post-procedure IOP were 44.17mmHg and 29.29mmHg. The mean pre-treatment and one-month post-procedure IOP for complete TSCPC were 45.57mmHg and 28.92mmHg. IOP reduction was significant at the first month post procedure in both groups. In limited TSCPC, mean IOP reduction was 33.9% ( $p < 0.05$ ) and in complete TSCPC it was 34.3% ( $p < 0.001$ ). 55.2% of all eyes were Diamox-dependent before procedure. 100% of our patients were Diamox-independent by 2 months post-procedure. Topical medication burden was also reduced in both groups post-procedure. 3 eyes required a repeated complete TSCPC while 11 eyes underwent surgical treatment

post-limited TSCPC. 77.8% of eyes post-limited TSCPC did not have any decline in their visual acuity following the procedure.

## **Conclusion**

Overall, diode laser TSCPC is effective in lowering intraocular pressure, reducing medication burden and does not cause visual deterioration in patients with NVG. Limited TSCPC is a good option in NVG patients who have a better prognosis eye which allows ophthalmologists to temporarily lower intraocular pressure before referral to glaucomatologists for further surgical treatment.

**COSCAB084****DEMOGRAPHIC AND CLINICAL PROFILE OF PATIENTS WITH CORNEAL ULCER IN HOSPITAL SULTAN ISMAIL PETRA (HSIP)**

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**Background**

Corneal ulcer is a major cause of preventable monocular blindness in developing countries, including Malaysia. Successful treatment of corneal ulcer is often associated with a poor visual outcome. The scarring that accompanies the resolution of infection leaves many eyes blind. To assess the demographic and clinical profile of patients with corneal ulcer in HSIP.

**Methods**

A retrospective analysis of 21 patients with corneal ulcer over 1-year period from October 2019 to September 2020.

**Results**

Total of 21 patients' records were reviewed. There was a male predominance with ratio of 2.5:1 with age of 30-50 years old. The most common predisposing factor was foreign body insertion following vegetative injury, which contributed about 76.2%. Thirteen patients (61.9%) had presenting visual acuity worse than 6/60 due to central ulcer involvement. More than half (9 patients) experienced visual improvement post treatment. Cornea cultures were positive in 10 patients (47.6%) in which 6 (60%) had fungal infections and 4 (40%) had bacterial infections. The most common fungus isolated was non sporulating fungi (50%), followed by *Fusarium spp.* (16.7%), *Neoscytalidium spp.* (16.7%) and *Acremonium spp.* (16.7%). *Pseudomonas aeruginosa* was the most bacteria isolated (50%) followed by *Streptococcus pneumonia* (25%) and *Moraxella spp.* (25%). The final visual acuity was 6/18 or better in 10 patients (47.6%) and worse than 3/60 in 7 patients (33.3 %).

**Conclusion**

The most common predisposing factor of corneal ulcer observed in HSIP was related to vegetative injury with non-sporulating fungi being the most common etiological organism. Although treatment may improve vision, the visual outcome is guarded.

**COS CAB085****GRANULOMATOSIS WITH POLYANGIITIS (GPA) IN A MIDDLE-AGED MALE WITH PAINFUL RED EYES**

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**Background**

Granulomatosis with polyangiitis (GPA), formerly named as Wegener's granulomatosis is an uncommon multisystem necrotizing granulomatous disorder, commonly affects small or medium- sized vessels. It is one of the antineutrophil cytoplasmic antibody (ANCA) associated vasculitides (AAV). GPA is classified into generalized and limited forms. Generalized GPA has renal involvement, while limited GPA primarily involve respiratory tract and eyes. We report a rare case of limited GPA with ocular complaint as initial presentation.

**Methods**

Case report. A 55-year-old gentleman with underlying allergic rhinitis, presented with 2 weeks history of right eye pain and redness. Initially, he was treated as right anterior scleritis but unresponsive to usual treatment. Subsequently, he developed right 6th cranial nerve (CN) palsy with new onset of frontal and temporal headache radiating to nasal bridge and bilateral sensorineural hearing loss. His c-ANCA was positive, PR3/ MPO were negative.

**Results**

He was started on GPA treatment. His remission induction treatment was oral prednisolone 55mg OD (1mg/kg/day) and 8 cycles of intravenous (IV) cyclophosphamide 825mg (15mg/kg). He developed relapse of GPA at the 6th and 8th cycle with Right CN V1 palsy and RE retrobulbar optic neuritis respectively. Subsequently, treatment was substituted with 2 cycles of IV Rituximab 1g with IV methylprednisolone 500mg.

He has no more relapses since then. Remission maintenance therapy was low dose oral prednisolone and methotrexate (MTX).

### **Conclusion**

Ocular manifestation can be an early manifestation for granulomatosis with polyangiitis (GPA), although it is nonspecific and uncommon. Early diagnosis can prevent devastating complications of GPA.

**COSCAB086****PARINAUD'S OCULOGLANDULAR SYNDROME IN A TEENAGER:  
BIOPSY CONFIRMED TUBERCULOSIS AFTER FAILED SPORO-  
TRICHOSIS EMPIRICAL TREATMENT**

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**Background**

Parinaud's oculoglandular syndrome is characterized by unilateral granulomatous conjunctivitis with ipsilateral lymphadenopathy. Aetiology has always been an enigma and the most common cause is *Bartonella henselae*. To report a rare case of Parinaud's oculoglandular syndrome secondary to extrapulmonary tuberculosis.

**Methods**

Case report.

A 15-year-old girl presented with left upper and lower eyelid swelling for 2 weeks duration associated with painless palpable ipsilateral preauricular lymph node. Clinical examination revealed non erythematous fullness of left lower eyelid and its eversion was presence of thick, irregular granuloma with surrounding follicles of lower palpebral fornix extending up to bulbar conjunctiva, few millimetres away from inferior limbus. Few smaller granulomas also were found at medial upper palpebral conjunctiva. The rest of conjunctiva was not injected or chemosed, while anterior and posterior segment findings were unremarkable. Vision was unaffected.

**Results**

She was empirically treated with oral antifungal and topical glucocorticosteroid for presumed Sporotrichosis cause but showed minimal improvement over 2 weeks course. Incisional biopsy was performed and was reported as chronic granuloma-

tous inflammation secondary to tuberculosis. Systemic tuberculosis workup was otherwise negative. Anti-tuberculosis treatment was initiated, and she showed good response of flatter lesions at completion of 2 months intensive therapy.

### **Conclusion**

Extrapulmonary tuberculosis manifesting as Parinaud's oculoglandular syndrome is rare but highly curative. Biopsy provides confirmatory diagnosis; thus, it should not be delayed after failed empirical therapy.

**COSCAB087****BILATERAL CORNEAL CHORISTOMA WITH ATYPICAL PRESENTATION**

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**Background**

Choristomas are congenital lesions representing normal tissue in an abnormal location. In the eye, the common site is at the epibulbar area. Bilateral corneal choristoma with atypical presentation as in this case is unusual.

**Methods**

Case report. A 7-year-old boy with no known medical illness presented with small whitish lesion over bilateral cornea which progressively increased in size for 3 years duration. At presentation, his best corrected visual acuity was 6/9 in right eye (OD) and 6/24 in left eye (OS). Anterior segment examination revealed bilateral superficial vascularised elevated whitish lesion over the inferonasal region of the cornea, sparing the limbus with size discrepancy of 2x2mm in OD and 4x3mm in OS. Other ocular examinations were unremarkable.

**Results**

During subsequent years of follow up, there was a significant increase in the size of the corneal lesions, obscuring the child's vision in OS. Excisional biopsy for both corneal lesions was done. Histopathological examination showed presence of keratinized squamous epithelium and smooth muscle on the epithelial layer of the cornea suggesting bilateral cornea choristoma.

**Conclusion**

Corneal choristoma with delayed presentation at unusual site may result in poor visual prognosis as progression involving the visual axis and end up with large amount of tissue excision for diagnosis confirmation.

**COS CAB091****THE SPARK THAT CAUGHT MY EYE**

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**Background**

To report a case of firework-related ocular injury in a child causing anterior lens dislocation and sclopetaria.

**Methods**

Case report. A 6-year-old boy was injured by an explosion of a firecracker while playing outside his house unsupervised. Post-trauma, he complained of right eye (RE) pain, bleeding and blurring of vision. At presentation, there were superficial burns over RE upper lid with laceration wound involving upper lid margin with periorbital hematoma and charred lashes. The relative afferent pupillary defect was positive RE, and vision was vague light perception. He sustained near-total cornea abrasion with temporal limbal ischemia, traumatic microhyphaema, iridodialysis, and traumatic mydriasis with cataract. There was no fundus view; however, B scan ultrasound showed dense vitreous haemorrhage with flat retina.

**Results**

He underwent RE examination under anaesthesia and upper lid repair. RE pH was 8.0, which normalized after 1.5litres of saline irrigation. Intravenous methylprednisolone was commenced together with intensive topical eyedrops. On day 8 of admission, the cataractous lens was seen subluxated anteriorly. He underwent a 25G vitrectomy, lens aspiration and endolaser. Intraoperatively posterior pole sclopetaria was seen with multilayer retinal and vitreous haemorrhage. Postoperatively, his vision was hand motion with aphakic correction.

**Conclusion**

Firecracker explosion close to the eye has significant visual morbidity due to mechanical, thermal and chemical injury mechanisms resulting in loss of lens and sclopetaria. Proper eyewear protection and parental supervision is needed to prevent catastrophic blindness in children.

**COS CAB095****A CASE REPORT OF BRANCH RETINAL ARTERY OCCLUSION (BRAO) AFTER COVID -19 VACCINATION (COMIRNATY, PFIZER/BIONTECH)**

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**Background**

The coronavirus global pandemic has had far-reaching and lasting consequences. Posterior segment involvement has varied manifestation and are actually vascular, inflammatory, and neuronal changes triggered by the viral infection but not specific to COVID-19. This case report is to illustrate the posterior segment manifestation following COVID-19 vaccination.

**Methods**

Case report. An 80-year-old lady with underlying controlled hypertension and dyslipidaemia presented with left eye sudden onset of superior half of visual field defect. She had her first dose of mRNA COVID -19 vaccination (Comirnaty, Pfizer/BioNTech) three days prior to presentation.

Ocular examination showed left eye RAPD positive with visual acuity of counting finger. Fundoscopy examination revealed pallish optic disc temporally, sectoral pale retina at infero-temporal quadrant just superior to macula, no obvious embolus seen. fundus fluorescein angiography (FFA) showed delay arterial filling at infero-temporal of retina, increased size of fovea avascular zone, capillary fallout (CFO) at infero-temporal quadrant. Blood activated partial thromboplastin time (APTT) was delayed at 50.1 seconds and blood cholesterol level was 4.2mmol/L. Ultrasound Doppler of common carotid artery were patent. ECHO showed no intramural thrombus.

**Results**

She was started on oral anticoagulants and sectoral laser photocoagulation was performed; however, her visual acuity remained the same. She was advised not to have the second dose of COVID-19 vaccination in view of the risk of recurrent thromboembolic event.

**Conclusion**

This was the first encounter of ocular presentation of thromboembolic event following COVID-19 vaccination in the hospital despite the cause is presumptive after many causes were excluded. BRAO post-COVID vaccination is a rare incident. There was no study on this incident yet.

**COS CAB097****CASE SERIES OF IDIOPATHIC INTRACRANIAL HYPERTENSION PRESENTED IN A TERTIARY EYE CENTER**

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**Background**

Idiopathic intracranial hypertension (IIH) is a disorder characterized by an elevation of intracranial pressure with the absence of an intracranial space-occupying lesion.

**Methods**

Case series. All cases of IIH diagnosed from January 2020 to June 2021 in Ophthalmology Department Hospital Raja Permaisuri Bainun were included.

**Results**

A total of 3 female patients have been diagnosed with IIH. Their ages ranged from 4 to 32 years old. One patient was diagnosed during her first trimester of pregnancy. The symptoms vary from irritability, headache, squint and diplopia. One patient had a decrease in visual acuity (6/24) and an enlarged blind spot, two patients had a false localizing sign, and all patients had bilateral optic disc swelling. The nutritional status varies from healthy to obese. Blood laboratory workup was within normal range. Imaging of the brain showed no evidence of space-occupying lesion or cerebral venous sinus thrombosis. Lumbar puncture opening pressure was between 270mmH<sub>2</sub>O to 520mmH<sub>2</sub>O with a normal analysis of cerebrospinal fluid. All patients were successfully treated with acetazolamide with resolved symptoms and signs.

**Conclusion**

This highlights the possibility of IIH presenting with a variety of clinical manifestations, which need a high index of suspicion by clinicians to prevent misdiagnosis and delay in treatment. The diagnosis of IIH is by exclusion; hence solving the challenges in the workup, especially in the child and pregnant woman, are crucial.

**COSCAB098****BILATERAL OPTIC PERINEURITIS WITH FROSTED BRANCH ANGIITIS SECONDARY TO CYTOMEGALOVIRUS INFECTION IN IMMUNOCOMPETENT PATIENT**

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**Background**

Cytomegalovirus (CMV) comes from a member of the Herpesviridae family. The infection of CMV is frequently reported in immunocompromised patients for example in transplant recipients and human immunodeficiency virus-positive patients. However, we are reporting a case of CMV infection in a healthy adult.

**Methods**

Case report. A 39-year-old gentleman with no medical illness complained of bilateral blurring of vision for 3 days. On examination, right eye vision was 6/36, pinhole 6/24, left eye vision was counting finger at 1 foot. The relative afferent pupillary defect (RAPD) was positive. His anterior segments findings were normal. Posterior segment findings were remarkable with anterior vitreous cells in both eyes. Bilateral fundus showed very subtle signs of vasculitis over the peripheral vessels resembling the frosted angiitis appearance. There was no retinitis or choroiditis. The cup disc ratios were normal, 0.5 pink disc with well define margins. Bjerrum test showed tunnel vision with impaired colour vision bilaterally.

**Results**

He was treated as bilateral posterior uveitis secondary to presumed Leptospirosis as his blood for Leptospira IgM was positive. IV Benzylpenicillin was started. One week later, his Leptospira polymerase chain reaction came back as negative. Surprisingly, the CMV workup was positive. He then was started on IV Ganciclovir. In view of high suspicious presentation of his clinical findings, MRI was ordered and showed

bilateral optic perineuritis. Intravenous Methylprednisolone was given followed by oral prednisolone with continuation coverage of his systemic antibiotics and antiviral. His bilateral vision improved to 6/9 with normal Bjerrum and the resolved RAPD. Throughout his admission, he had no neurological deficit.

### **Conclusion**

Early detection and treatment of CMV infection in the immunocompetent patient are important to prevent sight-threatening event.

**COS CAB099****PANUVEITIS WITH OPTIC NERVE HEAD INVOLVEMENT**

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**Background**

Panuveitis is a generalized inflammation of the uveal tract, retina and vitreous humour. Optic neuropathy is diagnosed with a feature of optic disc oedema and reduced optic nerve functions: relative afferent pupillary defect (RAPD), decreased visual acuity, and either dyschromatopsia or a visual field defect consistent with an optic neuropathy. To report the clinical presentation of panuveitis with optic nerve head involvement in Hospital Sultan Ismail Petra (HSIP).

**Methods**

Case series. Three patients were included in this study. Patients' age ranges from 16 to 25 years old. All cases presented with sudden onset, painless unilateral reduced vision of one week duration. Two of these patients had fever prior to initial presentation. Upon examination, their visions were counting fingers and hand movement. The relative afferent pupillary defect (RAPD) was positive with impaired optic nerve functions. Anterior segments revealed injected conjunctiva with anterior chamber cell reactions, no keratic precipitates, clear cornea, no iris nodules and presence of anterior vitreous cells. Intraocular pressures were normotensive. Fundus examination showed unilateral optic disc swelling, hard exudate at papillo-macular bundle, macula oedema, vitritis, and retinitis. We treated these patients as unilateral panuveitis with optic disc swelling. Blood and radiological investigations were done.

**Results**

Two of these patients showed infection caused by *Bartonella spp* and *Burkholderia spp*, while another patient's result was inconclusive. All patients were treated with

intravenous Methylprednisolone 250mg qid for 5 days, and complete intravenous antibiotics based on their sensitivity. The patients' condition improved with the treatment. Their latest visual acuity improved up to 6/6 with improved optic nerve functions.

## **Conclusion**

Panuveitis with optic neuropathy can be due to various causes. Early detection with appropriate management may lead to good visual outcome despite variable possible aetiologies of panuveitis.

## COSCAB100

### PETERS AND PENETRATING KERATOPLASTY

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#### Background

Peters' anomaly is one of the commonest causes of bilateral anterior segment dysgenesis during development. It can cause devastating corneal opacity with iridocorneal adhesions in an infant leading to multiple complications. Our case illustrates the management of Peters' anomaly.

#### Methods

Case report.

This is a full-term baby with birth weight of 2.2kg, she first presented to us at day 20 of life, with bilateral whitish corneal opacity noted by the attending doctor. Child is well with history of neonatal jaundice, no other medical problems. On examination, there were corneal opacity obscuring pupil with right eye (OD) denser than the left eye (OS). Examination under anaesthesia (EUA), OD showed almost total rounded corneal opacity with stroma neovascularization and shallowed anterior chamber. While OS showed irregular shaped, less dense central corneal opacity with shallow anterior chamber. UBM noted BE anterior synechiae. B scan: retina flat, vitreous clear. IOP under ketamine was normal with 9mmHg both eyes.

#### Results

On one of the regular follow-ups, OS showed buphthalmic eye appearance. IOP was 34mmHg, TSCPC 360 degree (700-1000mw/1000ms/35000miroM) was performed. Patient was then referred to HKL. She undergoes OD penetrating keratoplasty, lens aspiration and anterior vitrectomy at 7 months old. EUA at 3-month postoperative, OD IOP was 20mmHg, sutures were removed, corneal button was clear and there

were no signs of graft rejection. Her visual acuity (OD) currently is 6/60. While OS intraocular remains high despite of TSCPC and on antiglaucoma medications.

### **Conclusion**

Despite the risks of graft rejection and secondary glaucoma, PK is the best option to restore vision in this child since both eyes were involved. It will give the child better visual function and hopefully she may have normal developmental milestone.

**COSCAB101****COATS DISEASE IN TEENAGE GIRL**

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**Background**

Coats disease is a rare disorder characterized by abnormal development of blood vessels in the retina. Its affects males more often than female. Presentation in a teenage girl warrant a thorough work up to rule out other possible diagnosis, with a typical presentation of the posterior segment of an eye, diagnosis of Coats disease sometimes should be considered.

**Methods****Case report.**

An 18-year-old Malay girl presented with floaters in the right eye for 8 months. It was associated with occasional flashes of light but there was no visual field defect. Her visual acuity was 6/6 in both eyes. Right eye examination showed normal anterior segment finding. Fundus examination reveal telangiectatic vessels with surrounding retinal exudates and associated with shallow exudative retinal detachment at the inferotemporal retina peripherally. Otherwise, the optic disc was normal. Fundus fluorescein angiography showed multiple light bulb appearance seen at telangiectatic area with capillary fall out at area of exudative retinal detachment.

**Results**

A diagnosis of Coats disease of the right eye was made. Sectorial pan retinal photocoagulation was performed at the capillary fall out area. Follow-up at 4 months post laser, the right eye vision was maintained 6/6 with resolution with of exudative retinal detachment.

**Conclusion**

Although Coats disease is common among boys, we must consider its diagnosis in teenage girl presenting with retinal vasculopathy and localized exudation. Timely treatment with photocoagulation can maintain good visual outcome or preservation of vision.

**COS CAB102****ESSENTIAL IRIS ATROPHY: THE RARE VARIANT OF IRIDOCORNEAL ENDOTHELIAL SYNDROME**

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**Background**

Iridocorneal endothelial syndrome (ICE) is a unique disorder comprising of irregular corneal endothelium leading to corneal oedema, iris atrophy, and secondary angle-closure glaucoma. It comprises of 3 variants: 50% Chandler syndrome, 25% essential iris atrophy (EIA) and 25% Cogan-Reese syndrome (CRS). EIA is characterized by progressive iris atrophy with holes, corectopia and peripheral anterior synechia (PAS). Due to its rarity and variable nature of progression, long term management remains a challenge. This case report is discussing on EIA, a rare variant of ICE with secondary glaucoma.

**Methods**

Case report. A 33-year-old female presented with right eye redness, pain and blurring of vision for 2 days. Visual acuity on the right eye was 6/18 pinhole 6/12 while on her left eye was 6/6. Relative afferent pupillary defect was positive over the right eye. Slit lamp examination revealed hyperaemic conjunctiva, hazy cornea, shallow anterior chamber, iris atrophy with polycoria, ectropion uvea and irregular mydriasis. No iris nodules noted. The intraocular pressure (IOP) was 54mmHg. Gonioscopy revealed closed angle with peripheral anterior synechiae at 2,4,7 to 9 o'clock. Fundus examination showed pale disc with 0.9 cupping. Visual field test showed advanced peripheral defect. Left eye examination was otherwise unremarkable with IOP of 16mmHg.

## **Results**

She was admitted for IV mannitol and was initiated with maximal topical anti-glaucoma. Unfortunately, IOP was still hovering high and thus, she was offered a glaucoma filtering surgery. Post trabeculectomy with a well-functioning bleb and 1 needling session, successfully maintained her visual acuity at 6/24 and the IOP is well controlled below 18mmHg without any topical antiglaucoma.

## **Conclusion**

Essential iris atrophy is a rare clinical variant of ICE syndrome commonly associates with secondary glaucoma which is the main sight threatening complication. Thus, prompt and appropriate management strategies focused on controlling the high IOP and subsequently help in preserving the vision.

**COSCAB103****A CASE SERIES AND REVIEW OF PARINAUD'S OCULOGLANDULAR SYNDROME ASSOCIATED WITH SPOROTRICHOSIS IN HOSPITAL KUALA LUMPUR**

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**Background**

Parinaud's oculoglandular syndrome is a unilateral granulomatous follicular conjunctivitis associated with lymphadenopathy. To report a series of patients with Parinaud's oculoglandular syndrome associated with Sporotrichosis.

**Methods**

This is a retrospective case series from February to March 2021. Two healthy female patients were diagnosed with Parinaud's oculoglandular syndrome associated with sporotrichosis and history of contact with cats. They had enlarged ipsilateral periauricular and submandibular lymph nodes.

**Results**

The first patient was a 25-year-old lady presented to Hospital Kuala Lumpur with right eye lower lid injection and swelling for one month. Patient also had maculopapular rash on her left forearm. She was treated with oral Doxycycline for 3 weeks and Azithromycin for 2 weeks. However, symptoms did not resolve and was subsequently referred to Hospital Kuala Lumpur. On examination, there was granulomatous lesion on the right lower palpebral conjunctiva.

The second patient was a 37-year-old lady presented with right eye redness and swelling for 3 months. On examination, there were follicles at the right palpebral and superior bulbar conjunctiva. She had a cat with sporotrichosis and her siblings also had skin lesions. The cat and her siblings were already on antifungal treatment.

Her conjunctival scraping result confirmed *Sporotrichosis schenckii* infection. Both patients were started on oral Fluconazole 200mg OD and their symptoms improved markedly.

### **Conclusion**

Although Parinaud's oculoglandular syndrome is commonly associated with cat scratch disease (*Bartonella henselae*) and tularaemia, other infective causes such as sporotrichosis infection also should be considered as an initiation of appropriate treatment is crucial.

**COSCAB107****PAEDIATRIC TRAUMATIC HYPHAEMA SECONDARY TO TOY PROJECTILE: A CASE SERIES**

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**Background**

Traumatic hyphaema is a complication of blunt or penetrating injury and may cause increased intraocular pressure, corneal blood staining, optic atrophy and peripheral anterior synechiae which may lead to permanent visual loss. We reported a case series of paediatric traumatic hyphaema secondary to toy projectile encountered in Kelantan and Sabah.

**Methods**

Case series. The children were a boy and two girls aged between 6 and 11 years. Two injuries were inflicted by slingshot with a stone projectile while one injury was from a projectile from a toy gun. Only one case was witnessed by an adult.

**Results**

The children presented with vision ranging from 6/12 to light perception on the injured eye. One case had a positive relative afferent pupillary defect. All cases were closed globe injuries. All children had hyphaemas ranging from grade 1 to grade 4. One case had iridodialysis and commotio retinae. Otherwise, there was no posterior segment involvement. One of the cases required surgical intervention with anterior

chamber washout in view of non-improving hyphaema. At 6 weeks post trauma, all children had good visual outcome with best corrected vision of 6/9 or better. The children were then required to have long term follow up to look for any angle recession glaucoma.

## **Conclusion**

These cases highlight the dangers of toy projectile to children's eye. While in many cases, medical therapy is adequate to manage hyphaema, surgical intervention may be necessary in selected cases. Parents also play an important role to prevent such cases from happening in the future.

**COS CAB109****NEOVASCULAR GLAUCOMA: A RETROSPECTIVE REVIEW OF 3-YEAR EXPERIENCE AT A TERTIARY HOSPITAL IN MALAYSIA**

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**Background**

Neovascular glaucoma (NVG) is a severe sequela of ocular ischemia due to various conditions including retinal vein occlusion, diabetic retinopathy, and ocular ischemic syndrome. Surgery is indicated in NVG with uncontrolled IOP with maximally tolerated antiglaucoma medications. This study done to evaluate the aetiology, treatment and outcome of neovascular glaucoma (NVG) at Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan.

**Methods**

Retrospective case study. NVG patients of any causes who underwent surgery including laser transscleral cyclophotocoagulation (TSCPC) between January 2018 until December 2020 at Hospital Raja Perempuan Zainab II, Kota Bharu were retrospectively reviewed.

**Results**

Forty-seven eyes that underwent GDD implantation, trabeculectomy with mitomycin C (MMC) and laser TSCPC were included. In GDD groups, there were six patients who underwent Ahmed valve implantation while one patient had AuroLab Aqueous Drainage Implant done. Six patients underwent trabeculectomy with

MMC while thirty-four patients had laser TSCPC done. The mean age at the time of intervention was 62-year-old. The most common aetiologies were proliferative diabetic retinopathy (59.57%) followed by retinal vein occlusion (38.3%) and ocular ischemic syndrome (2.13%). Preoperative and postoperative intraocular pressure (IOP) and visual acuity (VA) were compared between surgical groups. Mean IOP in GDD group was reduced from 44.0mmHg preoperatively to 17.14mmHg postoperatively, whereas mean IOP in trabeculectomy group was reduced from 44.33mmHg to 16.17mmHg. Both surgical groups showed effective reduction of IOP postoperatively ( $P<0.001$ ), however there was no statistically significant difference in the IOP reduction between them ( $P=0.902$ ). In terms of VA, comparing between GDD and trabeculectomy groups, there were no statistically significant differences in the preoperative and postoperative VA between them ( $P=0.968$ ).

## **Conclusion**

Majority of NVG cases at our centre underwent TSCPC. Trabeculectomy and GDD are effective to reduce IOP in NVG cases, however there were no significant differences in final IOP between both groups.

**COSCAB110****A RARE CASE OF NEUROMYELITIS OPTICA SPECTRUM DISORDER WITH CLINICAL OCULAR MYASTHENIA GRAVIS PRESENTATION**

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**Background**

Neuromyelitis optica spectrum disorders (NMOSD) and myasthenia gravis (MG) are rare autoimmune diseases whose coexistence is reported to be more frequent than the diseases itself. Here we are reporting a case of a young gentleman presenting clinically as ocular MG who was found to fit the criteria of NMOSD.

**Methods**

Case report.

A 20-year-old male presented to ophthalmology clinic with complain of diplopia and ptosis which subsequently lead to the diagnosis of ocular MG. He was initially seen by private neurologist whereby imaging was done. MRI showed midbrain periaqueductal grey matter hyperintensity with pons hyperintensity on FLAIR and periaqueductal contrast enhancement on T1 with gadolinium. Otherwise, there was no sign to suggest optic neuritis. Other neurological examinations were normal.

**Results**

In view of the MRI findings, serum aquaporin-4 immunoglobulin G antibodies was taken and found to be positive. Serum acetylcholine receptor antibody test however yield negative result. A diagnosis of NMOSD was made and treatment with immunosuppressives was started and patient responded well.

**Conclusion**

This is a rare case of patient who initially presented with clinical ocular MG features. However, incidental findings of MRI brought to further investigation and diagnosis of NMOSD. In view of the common immunopathology pathway, one should consider neuromyelitis optica spectrum disorder as a differential as early treatment with early use of systemic immunosuppressants may reduce relapse and improve clinical outcome.

**COSCAB111****PAPILLOEDEMA, PRESENTING FEATURE OF SYSTEMIC LUPUS ERYTHEMATOSUS**

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**Background**

Systemic lupus erythematosus (SLE) is an autoimmune systemic disorder affecting multiple organ systems including central nervous system. Simultaneous presentation mimicking idiopathic intracranial hypertension with papilloedema is not common and raises high level of suspicion. Double threat presentation poses challenge of diagnosis to the clinician.

**Methods**

Case report. A 16-year-old, healthy young lady presented with history of headache associated with horizontal diplopia of 2 weeks duration. This was preceded by low grade fever 3 days prior to presentation. Neither history of trauma nor any neurological deficit elicited.

Examination showed both eye (BE) vision was of 6/6, no RAPD, minimal abduction limitation of BE of -1, normal optic nerve function test and anterior segment findings. Fundus examination showed papilloedema Frisen grade 4. Systemic examination was normal, no malar rash, no oral ulcer, no alopecia on presentation. CT scan and CTV were normal. Lumbar puncture yielded clear spinal fluid with opening pressure of 50cm H<sub>2</sub>O and normal CSF biochemistry and cytology. Blood infective parameters were normal, raised erythrocyte sedimentation rate with low complement levels. Her initial anti-nuclear antibodies were negative.

**Results**

She was diagnosed as aseptic meningitis and treatment commenced. As patient developed periorbital puffiness and non-specific skin rashes, her autoimmune panels were repeated. Results revealing high levels of ANA and double stranded DNA, hence revising her diagnosis to systemic lupus erythematosus. Patient's general condition improved with intravenous steroids and subsequent tapering oral dose steroids. Her papilloedema also showed improvement along the course her treatment.

**Conclusion**

Papilloedema can present as the initial presentation for many systemic disorders and play a role not only as diagnostic assistance but also for monitoring progression.

**COSCAB113****EXUDATIVE RETINAL DETACHMENT MIRROR OF METASTATIC BREAST CARCINOMA**

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**Background**

Choroidal metastasis (CM) is the first sign of a systemic malignancy in up to a third of patients with cancer due to its high vascularity and high susceptibility to hematogenous spread of cancer cells. We report a case of choroidal metastasis which was the first sign of metastatic breast carcinoma.

**Methods**

Case report. A 51-year-old Asian lady presented with left eye (LE) non-progressive painless temporal visual field defect for 3 months. Prior to that, she had painless breast lump for 8 months, but did not seek any treatment. On examination, both eye visions were 6/9 with no relative afferent pupillary defect, whereas both anterior segments examinations were normal. However, LE fundus examination showed superior serous detachment with areas of subretinal folds. B-scan and optical coherence tomography showed a choroidal mass with an area of subretinal fluid. Further systemic examination revealed a small right breast mass with axillary lymph node involvement.

**Results**

She underwent an ultrasound guided biopsy, and histopathology revealed invasive breast carcinoma. After neuroimaging was done, she was diagnosed with right breast carcinoma T2N1M1, which had metastasized to intraocular lungs and bones. She was planned for six cycles of chemotherapy of 5-Fluorouracil-Epirubicin-Cyclophosphamide as per guidelines by the oncology team. After the second cycle of che-

motherapy, her LE vision deteriorated to non-perception of light in all quadrants. Funduscopy showed increasing mass size involving optic disc with exudative retinal detachment involving the fovea. Otherwise, her right eye vision remains 6/9. Unfortunately, after the fifth cycle of chemotherapy, her condition worsened, and she succumbed to death before completing the chemotherapy; the cause of death was advanced metastatic breast carcinoma.

## **Conclusion**

Choroidal metastases commonly occurred at the late stage of disseminated disease and were remarked as poor prognostic signs.

**COSCAB115****LIPOMA OR LYMPHOMA? A DIAGNOSTIC DILEMMA**

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**Background**

Primary orbital lymphomas account for about 1-2% of non-Hodgkin's lymphomas and intraconal orbital lymphoma is an exceedingly rare entity. A tissue biopsy is needed for confirmation of diagnosis.

**Methods**

Case report. A 75-year-old Chinese lady with underlying hypertension presented with reduced vision over the right eye (RE) for two weeks. On examination, the relative afferent pupillary defect was positive, with visual acuity of counting fingers and impaired optic nerve function tests. The motility of the eye was restricted most notably on elevation and abduction with increased resistance to retropulsion. A proptosis of 5 mm difference was demonstrated. Fundus examination revealed swollen optic disc with flame-shaped haemorrhages surrounding the disc. Systemic examination was unremarkable.

**Results**

The patient was treated with intravenous methylprednisolone for three days, and an urgent MRI of the brain and orbit was performed. It showed a well-lobulated right inferomedial intraconal space-enhancing mass. On day 3 of admission, a transconjunctival medial orbitotomy and incisional biopsy of the mass was done, and it was reported as lipoma. In view of the ambiguity of the histopathological diagnosis, a biopsy was repeated via transconjunctival inferior orbitotomy approach after two weeks. It revealed tissue fragments infiltrated with small lymphocytic lymphoma.

**Conclusion**

Orbital biopsy after steroid use may result in inaccurate tissue diagnosis and warrants a repeat biopsy. A second biopsy should be considered if there is a mismatch to the clinical presentation to avoid delay in diagnosis and treatment.

**COSCAB116****CW-CHORD VALUE IN A PREOPERATIVE CATARACT ASSESSMENT PATIENT USING CARL ZEISS IOL MASTER 700**

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**Background**

Intraocular lens replacement plays an important role in cataract patients to provide an optimal visual outcome with negligible photic phenomena. The objective of this study is to evaluate the mean outcome of Chang Waring-Chord (CW-Chord) in pre-operative cataract assessment patients, with or without foveal fixation using Carl Zeiss IOL Master 700.

**Methods**

Retrospective cross-sectional study. A total of 140 cataract patients (278 eyes) were presented and recruited during preoperative cataract assessment from January 2020 until September 2020. All patients were examined using Carl Zeiss IOL Master 700 and fixation image were observed using the foveal imaging portrayed by the IOL master 700. CW-Chord readings data obtained were then compared with the foveal fixation in each patient.

**Results**

The study comprised of 278 eyes from 140 patients which were equally divided with a ratio of 1:1 between each gender. Preoperatively, foveal fixation loss was seen in 45 eyes (16.2%) as compared to no foveal fixation loss in 233 eyes (83.7%). The mean value of CW-Chord was 0.28mm (95% CI: 0.246, 0.314) ( $P < 0.001$ ) for all patients. The mean value of CW-Chord with foveal fixation was 0.263mm (95% CI: 0.226, 0.300) ( $P < 0.001$ ) and without foveal fixation 0.371mm (95% CI: 0.284, 0.458) ( $P < 0.001$ ).

**Conclusion**

CW-Chord measurement can be counter checked with the foveal fixation in all patients by using IOL master 700. CW-Chord measurement with foveal fixation was found to have a smaller value when compared to non-foveal fixation group. CW- Chord reading with foveal fixation using IOL master 700 were able to give more accurate results with better confidence as compared to without foveal fixation.

**COS CAB117****A CASE SERIES OF PARINAUD'S OCULOGLANDULAR SYNDROME SECONDARY TO SPOROTRICHOSIS**

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**Background**

Sporotrichosis is caused by a form of dimorphic fungi (*Sporothrix schenckii*) which causes infections localized to skin, subcutaneous tissue, and adjacent lymphatic vessels. Parinaud's oculoglandular syndrome (POS) is an ocular manifestation of sporotrichosis characterized by granulomatous conjunctivitis associated with preauricular and submandibular lymphadenopathy.

**Methods**

Case series.

Case 1: A 38-year-old Malay lady complaint of right upper eyelid swelling for 2/52. She has history of contact with cat. Her right eye (RE) visual acuity was 6/36. Lid examination revealed nodular swelling and present of granulomas on inferior palpebral conjunctiva. Biopsy was taken and culture came back as positive *Sporothrix schenckii* organism.

Case 2: A 45-year-old Malay lady presented with left eyelid swelling for 1/12. She also has positive contact with cat. Her visual acuity was 6/9. Eye examination noted swollen lids and granulomas on inferior palpebral conjunctiva. Culture of granuloma also grew *Sporothrix schenckii*.

Case 3: A 64-year-old Malay lady came with history of RE swelling for 1/12. She has cats at home. The visual acuity was 6/9. Significant eye finding was granulomas on inferior bulbar conjunctiva. The eyelid was normal. Granuloma excision sent for culture and result positive for *Sporothrix schenckii*.

In all 3 cases the submandibular nodes were palpable.

## Results

We hereby present three patients aged between 38 to 64 whom had lymphocutaneous presentation of ocular sporotrichosis. All patients had fungal culture of *Sporotrichosis schenkii* isolated. A regime of oral Itraconazole 200mg OD was started for these patients for an average period of 12 weeks. All of them had recovered well.

## Conclusion

POS has a wide spectrum of causative organisms and it is pertinent to find the culprit in order to treat patients successfully. Although sporotrichosis is a relatively uncommon cause of this condition, it is known to be endemic in many humid tropical countries. A high degree of suspicion must be maintained in such cases. Culture biopsy must be taken in an expedited manner to aid diagnosis and tailored treatment. Contact with domestic animals such as cats must be elicited in history clearly.

**COS CAB118****ACUTE ANGLE CLOSURE GLAUCOMA SECONDARY TO EXPULSIVE HAEMORRHAGE IDIOPATHIC POLYPOIDAL CHOROIDAL VASCULOPATHY**

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**Background**

Acute angle closure glaucoma (ACG) secondary to expulsive haemorrhage idiopathic polypoidal choroidal vasculopathy (PCV) is a rare and catastrophic medical retina complication. Expulsive haemorrhage PCV pushing the iris forward and closed the angle resulting in marked increased pressure in the eye. PCV is a disease of unknown aetiology.

**Methods**

Case report. A 53-year-old lady, presented with sudden visual loss, pain and redness over her right eye (RE). She complaint of headache for 2 days, associated with nausea and vomiting. She has underlying diabetes mellitus, hypertension and dyslipidaemia. Vision on presentation over her right eye was light perception and left eye was 6/9. Her right eye relative afferent pupillary defect was positive. Anterior segment examination of the right eye showed injected conjunctiva, epithelium bedewing, shallow anterior chamber with cells 3+ and a 5mm mid-dilated pupil. Her left eye anterior segment examination was normal. The intraocular pressure (IOP) was 60mmHg in her right eye and 11mmHg in the left eye. RE fundus was hazy to be appreciated at first presentation. However, B-scan showed total exudative retinal detachment, positive T sign and choroidal effusion.

**Results**

She was started on oral acetazolamide, 3 anti-glaucoma and topical steroid over the right eye. Gonioscopy showed right eye angles were closed. Laser peripheral

iridotomy (PI) was performed. IOP was well controlled after laser PI with continuation of the medical treatment. Right eye fundus was now able to be visualized and findings showed exudative retinal detachment and choroidal effusion. A provisional diagnosis of right eye acute ACG secondary to ruptured IPCV was made. Patient did not show any visual improvement on follow up.

## **Conclusion**

Acute ACG secondary to ruptured IPCV is a rare clinical condition and carry a devastating complication. The visual prognosis is very poor despite prompt medical management.

**COSCAB120****LEFT INTERNUCLEAR OPHTHALMOPLEGIA IN A HYPERTENSIVE PATIENT**

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**Background**

Internuclear ophthalmoplegia (INO) is an ocular movement disease which causes conjugate lateral gaze palsy due to damage to the medial longitudinal fasciculus (MLF). There are various causes to MLF damage, one of it is uncontrolled hypertension as described in our case report.

**Methods**

Case report. A 58-year-old lady with poorly controlled hypertension, presented with sudden onset of diplopia and squint for a day preceeded by a week of non-compliance to anti-hypertensive medication. Blood pressure on presentation was 185/130 mmHg. On eye examination, visual acuity (VA) of left eye was 6/6 and right eye was 6/9 with no relative afferent pupillary defect (RAPD) and normal optic nerve function assessment. Her visual fields were full on confrontation. However, there was a limitation in left eye adduction, with right eye horizontal nystagmus on abduction. Otherwise, ocular examination for both eyes were normal. There was an impairment in cranial nerve III function with the rest of cranial nerves function remaining intact. Systemic examination was unremarkable. Hess Chart showed overreaction of right medial rectus muscle and underreaction of left medial rectus muscle. Computed tomography (CT) scan of the brain showed hypodensities at both frontal lobes and centrum semiovale.

**Results**

Based on history and clinical findings diagnosis of INO secondary to uncontrolled hypertension was made. Patient's blood pressure was monitored and managed accordingly. Diplopia symptoms decreased and showed resolution within several months of follow up.

**Conclusion**

The vascular cause is one of the aetiologies for developing internuclear ophthalmoplegia in the elderly. Radiological investigations such as CT scan and magnetic resonance imaging is often required to identify the site of the lesion. Multidisciplinary management aids in its treatment

**COSCAB122****ENDOGENOUS ENDOPHTHALMITIS IN DISSEMINATED METHICILLIN SENSITIVE STAPHYLOCOCCUS AUREUS (MSSA) BACTERAEMIA**

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**Background**

To share a case of extensive nasoseptal cellulitis with right nasal wall abscess had spread hematogenously during incision and drainage procedure and became an MSSA endophthalmitis and infective endocarditis.

**Methods**

Case report. A 43-year-old man with poorly controlled diabetes mellitus was admitted for bilateral nasoseptal cellulitis with right nasal wall abscess and right vocal cord palsy. During the first assessment, he just had a preseptal cellulitis without any posterior segment involvement.

**Results**

He underwent incision and drainage under the otolaryngology team. Postoperatively he developed sepsis and hematogenously spread the infection to his right eye (endophthalmitis) and his heart valve (infective endocarditis). Blood culture revealed MSSA. The patient had course of IV cloxacillin and was given an intravitreal injection of vancomycin and ceftazidime. Fortunately, he responded well to treatment with the resolution of vitritis and retinitis.

**Conclusion**

In a case of a poorly controlled patient with Diabetes Mellitus with an extensive regional infection, a meticulous eye assessment should be carried out to avoid

endophthalmitis that can be easily missed. This need to be applied to all patients who undergone surgical procedure to remove the source of infection as the pathogens can be released to the circulation and disseminated to other organs.

**COSCAB123****HERPES ZOSTER OPTIC NEURITIS IN HUMAN IMMUNODEFICIENCY VIRUS INFECTION**

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**Background**

Optic neuritis is a rare manifestation of herpes zoster ophthalmicus (HZO) with varying degree of onset and progression. A definite treatment regime is yet to be found effective. This case report presents and shares the unusual rapid progression to vision loss, the therapeutic choice, and its outcome.

**Methods**

Case report. A 34-year-old HIV-positive man with underlying perianal plasmablastic lymphoma presented acute onset vision loss for three days. His visual complaint was preceded by zosteriform rash involving all trigeminal divisions. A similar rash developed over left T10 dermatome distribution one month prior. Visual acuity over the right eye was NPL with positive grade 2 relative afferent pupillary defect (RAPD). There was superior scleritis accompanied by dendritic lesions at the peripheral cornea. Fundus revealed blurred disc margins with confluent retinitis and choroiditis lesions. CT brain and orbit showed diffuse right optic nerve thickening with fat streakiness.

**Results**

Patient presentations supported by imaging results make a diagnosis suggestive of optic neuritis due to herpes zoster infection. IV Acyclovir was started, and improvement of retinal lesions was seen. However, there was no improvement in vision.

**Conclusion**

Herpes zoster optic neuritis is rare even in immunocompromised patients. The ophthalmologist should always be aware of the rapid deterioration in vision that may occur. Prompt treatment with intravenous antiviral may prevent further vision loss, but some reports still show progression.

**COSCAB124****DANGER IN DISGUISE: THE DECEPTIVE APPEARANCE IN A CASE OF WHITE-EYED BLOW OUT FRACTURE**

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**Background**

A paediatric, white-eyed trap-door fracture can be presented with very subtle signs, resulting in a life-threatening event.

**Methods**

Case report. A 10-year-old Indian boy allegedly hit his left eye with a friend's elbow while playing on the field. Post-trauma, he only complained of mild left eye pain with no blurring of vision and no redness. However, he had multiple episodes of dizziness and vomiting but no loss of consciousness. Ophthalmic examination showed a paucity of external ocular findings indicating soft tissue injury. His visual acuity was intact, and there was an absent of periorbital hematoma, enophthalmos and subconjunctival ecchymosis. Further examination exhibited restriction of left eye vertical gaze. Computed tomography revealed left inferior orbital wall trap-door fracture with herniation of the extraconal fat.

**Results**

Subsequently, the patient was referred to the oral and maxillofacial surgery team and underwent release of orbital content via a transconjunctival approach. Postoperatively, he had no more vomiting and recovered with minimal residual limitation of up-gaze.

**Conclusion**

A high index of suspicion and cross-sectional imaging is required to confirm the diagnosis and ensure the critical period for surgical intervention is not delayed.

**COSCAB125****COMPARISON OF KERATOMETRY VALUES BETWEEN CORNEAL TOPOGRAPHY AND BARRET TORIC CALCULATOR INTEGRATED KERATOMETRY IN CATARACT PATIENTS**

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**Background**

Calculation of the intraocular lens (IOL) power remains one of the most important steps in the preoperative evaluation for cataract surgery. The objective of this study was to evaluate the difference of keratometry values between corneal topography (CT) and the Barrett Toric Calculator Integrated Keratometry (BTCIK) in cataract patients.

**Methods**

This was a retrospective review of the medical record of cataract patients who underwent pre-operative cataract assessment. The value of astigmatism obtained using the CT and BTCIK were collected and analysed.

**Results**

A total of 33 patients (66 eyes) were reviewed. The astigmatism mean value for the right eyes using the CT and BTCIK was 0.8415 D (SD 0.5350 D) and 0.8149 D (SD 0.4580 D) respectively. For the left eye, astigmatism mean value using the CT and BTCIK was 0.7957D (SD 0.6770 D) and 0.8843 D (SD 0.7230 D) respectively. The keratometry differences between corneal topography and BTCIK in the right eye was 0.0266 D and in the left eye was 0.0886 D.

**Conclusion**

There was a difference of anterior curvature astigmatism between corneal topography and BTCIK assessment in cataract patients. This potentially may affect the choice of intraocular lens power and results in residual astigmatism postoperatively.

**COSCAB127****KEEPING AN EYE ON THE HEART**

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**Background**

Infective endocarditis is a life-threatening disease that results from infection of the endocardial surface of the heart. The disease may also affect almost any organ in the body and the eyes are un-spared.

**Methods**

Case report. A 43-year-old diabetic male presented with sudden, painless right eye blurring of vision for three weeks. There was no fever or other systemic symptoms. Visual acuity on the RE was 6/60 not improved with pinhole, and 6/21 on the LE, corrected to 6/9 with pinhole. Relative afferent pupillary defect (RAPD) was negative. Present of 1+ cells in both anterior chambers. The intraocular pressures were normal and lens were cataractous. Fundus examination revealed scattered choroiditis with pre-retinal macula haemorrhages bilaterally. No vasculitic changes noted. Full blood picture showed hypochromic microcytic anaemia with haemoglobin level of 6.5 g/dL. Blood cultures yielded *Streptococcus mutans*. Echocardiography showed severe aortic regurgitation with vegetations.

**Results**

He was treated as infective endocarditis by the medical team and completed a 6-week course of intravenous Ampicillin. He remained afebrile with no systemic symptoms in the ward. Visual acuity significantly improved to 6/15 on the right eye and 6/9 on the left eye on day-4 of treatment. Choroiditis and pre-retinal haemorrhages had resolved upon completion of day-17 of intravenous antibiotics.

**Conclusion**

Albeit rare, choroiditis may be the first presentation of infective endocarditis. Such cases should be investigated thoroughly and approached with a high index of suspicion to prevent mortality.

**COSCAB128****SUPRASellar TUMOR PRESENTING AS MULTIDIRECTIONAL NYSTAGMUS**

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**Background**

Patients with suprasellar tumours usually present with headaches, visual field defects and reduced vision. Nystagmus may be the presenting sign of a suprasellar tumour, particularly pendular and see-saw nystagmus. Here we present a case of suprasellar tumour presenting as multidirectional nystagmus.

**Methods**

Case report. A 3-year-old boy presented with an inability to focus for the past one year. There was no history of trauma, and antenatal history was uneventful. On examination, he was noted to have bilateral conjugate torsional nystagmus with occasional vertical and horizontal components. He was only able to follow large objects and the extraocular movements were full. His pupils were reactive with no relative afferent pupillary defect. Anterior segment examination was normal. Fundus examination of both eyes revealed a pale optic disc with a cup to disc ratio of 0.4. Magnetic resonance imaging of the brain and orbit showed a large suprasellar mass with hydrocephalus.

**Results**

The patient was referred to the neurosurgical team for further management and was planned for a ventriculoperitoneal shunt.

**Conclusion**

Multidirectional nystagmus may be a presenting sign in a suprasellar tumour. Therefore, neuroimaging in these cases is warranted.

**COSCAB129****MYELIN OLIGODENDROCYTE GLYCOPROTEIN (MOG) ANTIBODY IN A YOUNG BOY WITH BILATERAL OPTIC NEURITIS**

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**Background**

Myelin oligodendrocyte glycoprotein (MOG) antibody disease is an inflammatory demyelinating condition of the central nervous system. Optic neuritis is the most common phenotype. This occurred in 54–61% of patients, followed by myelitis and acute disseminated encephalomyelitis (ADEM). We report a rare case of bilateral eye optic neuritis secondary to MOG antibody.

**Methods**

Case report. A 12-year-old boy presented with a three-day history of bilateral sudden, painless loss of vision. Bilateral vision was hand movement. Pupils were reactive, and a relative afferent pupillary defect was absent likely due to bilateral involvement. Ishihara plates could not be read. Anterior segments were normal. Bilateral eye showed hyperaemic disc with generalized disc oedema, telangiectatic vessels and papillomacular bundle striations. Systemic and neurological examinations were normal. Blood investigations and infective screening were normal. MRI brain showed enhancement of bilateral intra-orbital segment of the optic nerves and non-specific T2 weighted hyperintensity in the right frontal brain. Serum MOG antibody was positive.

**Results**

Diagnosis of optic neuritis secondary to MOG antibody established. The patient was treated with intravenous methylprednisolone for three days followed by a tapering dose of oral prednisolone and oral azathioprine. He regained his bilateral vision of 6/9 after 20 days of treatment, and optic disc swellings progressively resolved. Sub-

jectively, there was reduced red saturation and light saturation over the right eye. Colour vision using Ishihara plates showed right eye 1/17, left eye 2/17. However, Hardy Rand and Rittler pseudoisochromatic test showed mild deuteranomaly. Otherwise, he has maintained his vision and remained asymptomatic for one year.

## **Conclusion**

MOG antibody optic neuritis is an antibody-mediated demyelinating disease of the optic nerve which commonly affects children and young adults. It is a rare but treatable condition. Hence, prompt diagnosis and treatment are vital to prevent significant ocular morbidity.

**COS CAB130****BILATERAL PRIMARY NON-HODGKIN'S LYMPHOMA OF THE LACRIMAL SAC**

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**Background**

Primary non-Hodgkin's lymphoma of bilateral lacrimal gland is rare, with most reported cases representing secondary involvement of a systemic malignancy.

**Methods**

Case report. A 65-year-old Malay lady with underlying diabetes mellitus, hypertension and hyperlipidaemia presented with bilateral medial canthal swelling for one-month duration. She gave history of chronic bilateral epiphora with recurrent history of dacryocystitis which partially respond to systemic antibiotic. Right endonasal dacryocystorhinostomy was performed 3 years ago however the symptoms recurred a year after surgery. Clinical examinations revealed bilateral diffuse erythematous medial canthal swelling extending to upper cheeks. Positive dye disappearance test was observed bilaterally. Ocular examination was unremarkable with no evidence of orbital cellulitis. Computed tomography of the orbits and paranasal sinus showed bilateral soft tissues mass involving bilateral lacrimal sac and nasolacrimal duct.

**Results**

She underwent bilateral endoscopic dacryocystorhinostomy (revision on the right) with excision biopsy. Histopathology confirmed of extra-nodal marginal zone B cell lymphoma. She completed 6 cycles of chemotherapy. Gradual improvement and

resolution of bilateral epiphora and medial canthal swelling were observed upon completion of treatment.

### **Conclusion**

Primary lacrimal sac lymphoma is a rare entity. Recurrent atypical presentation with suboptimal response to standard treatment of nasolacrimal duct obstruction should raise a suspicion of secondary causes. Histological examination is crucial to ensure prompt and appropriate treatment.

**COSCAB131****A RARE NON-SURGICAL RELATED MASSIVE SPONTANEOUS SUPRACHOROIDAL HAEMORRHAGE**

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**Background**

Suprachoroidal haemorrhage (SCH) is rare, most commonly associated with intraocular surgery, and has an extremely poor visual prognosis. Spontaneous suprachoroidal haemorrhage is an even rarer disease. Most of the cases were associated with deranged coagulation profile due to underlying illness and drug. Ocular risk factors are age-related macular regeneration (AMD), glaucoma, and high myopia. Old age, hypertension and atherosclerosis are recognized systemic risk factors. Here we present 2 patients who developed spontaneous SCH without ocular risk factor, trauma and surgical related.

**Methods**

Case report.

Case 1: A 73-year-old gentleman with uncontrolled hypertension, came with left vision loss, only able to perceive light with very high intraocular pressure (IOP) and blood pressure (BP), 68mmHg and 196/106mmHg respectively. Ocular examination showed no view of the fundus and B scan revealed near kissing SCH.

Case 2: A 59-year-old, post valve replacement surgery on life-long warfarin, presented with hand movement vision and IOP of 47mmHg. There was no fundus view and B scan showed massive submacular and SCH. His blood results revealed prolonged bleeding time.

## **Results**

Both cases are rare non-surgical related massive spontaneous SCH. In case 1 with intervention, unfortunately despite drainage of suprachoroidal haemorrhage and good IOP and BP control his vision remained poor. Whereas in case 2, in view of very poor visual prognosis, patient opted for conservative treatment.

## **Conclusion**

Spontaneous massive SCH is highly associated with hypertension and systemic anticoagulation. Thus, physician and general practitioner play an important role in managing this group of patients with associated risk factor for better recognition of this devastating ocular complication in which early detection may reduce the morbidity.

**COS CAB133****UNUSUAL PRESENTATION OF SELF-LIMITING ANTERIOR UVEITIS FOLLOWING SARS-COV-2 MESSENGER RNA (MRNA) VACCINATION**

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**Background**

Vaccines are known to cause systemic inflammatory response including the eyes (uveitis). In this pandemic era of Covid-19, more newly engineered vaccines are introduced to fight against the virus. The objective of this study is to describe an acute event of anterior uveitis following SARS-CoV-2 messenger RNA (mRNA) vaccination.

**Methods**

Case report. A 77-year-old Chinese male with underlying diabetes mellitus, hypertension, previous bilateral eye trabeculectomy (5 years) and recent I-Stent injection (3 weeks) in the left eye who was initially well following the surgery presented with sudden onset of right eye (RE) anterior uveitis 1 day following SARS CoV-2 messenger RNA vaccination. RE visual acuity was 6/9 and intraocular pressure was normal. Anterior segment revealed mild conjunctiva hyperaemia with keratic precipitates seen on the corneal endothelium with mild anterior chamber reaction. No sign of posterior segment involvement seen.

**Results**

No other possible causes of uveitis were detected from the history and physical examination. Patient responded well to the standard treatment given and required further follow up.

**Conclusion**

Uveitis may have been initiated by the host antibody response following the vaccination which responded well to standardized treatment for uveitis.

**COSCAB134****AN UNFORTUNATE BLIND EYE**

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**Background**

This is a rare case with a severe endogenous panophthalmitis caused by *Klebsiella pneumoniae* (KP) in a non-diabetic patient.

**Methods**

Case report. A 53-year-old premonitory well female presented with sudden onset of right eye redness and proptosis. She was premonitory blind in the right eye since birth. Before that, she developed a high-grade fever associated with chills, rigour and dyspepsia. She appeared septic. Her right eye was severely proptosed with ophthalmoplegia. She had edematous eyelid, chemotic and thickened conjunctiva with sticky eye discharge and opaque microcornea that hindered further ocular examination. B-scan showed clear vitreous. A full septic workout was done. Orbit CT scan showed orbital cellulitis features, and Liver ultrasonography showed multiple large liver abscesses.

**Results**

A diagnosis of panophthalmitis was made. Her blood culture and sensitivity showed growth of KP and sensitive to cefuroxime. She was treated with high dose intravenous ceftazidime and was managed concurrently by various disciplines. However, her ocular condition worsened, and a repeated orbit CT scan showed enlargement of the right eye globe with diffuse scleral thickening and intraorbital abscesses. Right eye enucleation was done. She was treated with intravenous cefuroxime for two months and healed well.

**Conclusion**

KP does not only cause metastatic infection in diabetic patients but may also affect those without diabetes mellitus. A thorough history of preceding systemic symptoms and investigations are essential to detect the infection. A multidisciplinary approach is vital to manage this patient successfully.

**COSCAB138****DEVASTATING OCULAR COMPLICATION OF PARRY-ROMBERG SYNDROME: PHTHISIS BULBI**

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**Background**

Parry-Romberg syndrome, also known as progressive hemifacial atrophy, is a self-limited, sporadic neurocutaneous disease of unknown origin with typical onset in childhood or early adulthood.

**Methods**

Retrospective review of one case.

**Results**

We describe a case of a 23-year-old Malay lady with right-sided Parry-Romberg syndrome presented with multiple ophthalmic complications. She initially presented with right-sided facial disfigurement associated with decreased visual acuity at the age of twelve. It progressively worsened over the years. On presentation, she had severe periocular complications such as enophthalmos, pseudoptosis and eyelid atrophy. Her right eye vision was poor due to phthisis bulbi.

**Conclusion**

Parry-Romberg syndrome is a rare multisystem disorder of unknown aetiology characterized by progressive hemifacial atrophy. It has a wide spectrum of ophthalmic manifestations. Phthisis bulbi is one of its blinding complications that is due to ciliary body atrophy.

## COS CAB139

### A GLASS EYEBALL

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### Background

Retained intraocular foreign body (IOFB) occurs in 18%–41% of ocular trauma cases, leading to a wide range of ocular pathologies and vision outcomes.

### Methods

Case report. A-15 -year-old boy with no known medical illness presented with right eye (RE) painful blurring of vision after he was struck by a glass marble. Before this, both eyes were emmetropic and had no history of ocular trauma or surgery. Upon examination of RE, best-corrected visual acuity (VA) was counting fingers. There was a full-thickness upper lid laceration, chemosis, 1 mm hyphema, iridodiolysis (10-11 o'clock), and traumatic mydriasis. Intraocular pressure was 24 mmHg. Relative afferent pupillary defect (RAPD) was present. There was no fundus view. B-scan showed vitreous and subretinal hemorrhage. CT scan of the orbits revealed the presence of a hyperdense foreign body embedded between the right superior orbital wall and globe. Otherwise, left eye (LE) findings were normal.

## **Results**

Diagnosis of IOFBs was made for this patient. He was warded and received antibiotics, analgesic, systemic and topical steroid, cycloplegic and antiglaucoma. He then underwent surgery for foreign body removal. Intraoperatively, the foreign body was approached through the upper lid laceration wound. There was slight difficulty in retrieving the object due to its shape and location but still able to extract it successfully. A 15mm glass marble was removed. Postoperatively, he developed total hyphaemia which subsequently resolved. Patient's RE VA was PL due to vitreous haemorrhage and traumatic optic neuropathy.

## **Conclusion**

The outcome and prognosis of IOFBs vary based on the mechanism, location, and material of the foreign body.

## COSCAB140

### OCULAR TOXOPLASMOSIS

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#### Background

Toxoplasmosis is a worldwide zoonosis caused by the protozoal organism *Toxoplasma gondii*, an obligatory parasite of the cat.

#### Methods

Case series.

#### Results

A total of 3 ocular toxoplasmosis seen recently in eye clinic, Hospital Selayang, year 2021. Case 1 describes a 39-year-old lady with domestic cat at home, presented with right eye blurring of vision for 2 days duration. Ocular examination showed swollen optic disc, granuloma inferotemporally, retinitis with overlying vitritis and perivascular sheathing, macular star and subretinal fluid. *Toxoplasma* immunoglobulin (Ig)G was positive, while IgM was negative. Patient was treated and responded well with oral azithromycin and oral steroids.

Case 2 describes a 19-year-old healthy boy presented with left eye blurring of vision for 1-month duration. Ocular examination showed dense vitritis, focal retinitis, vasculitis and subretinal fluid. *Toxoplasma* IgG was positive, while IgM was negative. He was given oral Bactrim and oral steroids. The disease resolved gradually.

Case 3 describes a 28-year-old healthy gentleman, was previously treated for left ocular toxoplasmosis as outpatient 1 month ago, presented with new onset of left eye blurring of vision for 1 week. Ocular examination showed solitary retinitis adjacent to an old scar with adjacent vasculitis. There was presence of macular oedema and subretinal fluid. Recurrent ocular toxoplasmosis was made. He was

started on oral Bactrim and oral steroids for total of 6 weeks. Currently the disease is in remission.

### **Conclusion**

Ocular toxoplasmosis is a common infective cause for posterior uveitis and neuroretinitis in southeast Asia.

**COS CAB141****TRANSIENT CORTICAL BLINDNESS: A RARE COMPLICATION OF HEPATIC ENCEPHALOPATHY (HE) IN A PAEDIATRIC PATIENT**

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**Background**

Cortical blindness is a condition diagnosed in a present of normal appearing eye caused by damage to the brain cortical cortex. Ischemia of the occipital lobe is the most common cause. In a case of severe liver disease causing hepatic encephalopathy, the cause of sudden visual loss needs to be thought about.

**Methods**

Case report. A 13-year-old girl with type 1 autoimmune hepatitis complained of sudden onset painless visual loss of both eyes with generalized headache. She subsequently spoke incoherently, delirious and not obeying commands. Five days prior to her visual loss, she presented to the emergency department with vomiting and haematemesis. Upon review, she was drowsy, lethargic and pale with consciousness level of 13 on the Glasgow Coma Scale. Her visual acuity was hand motion in both eyes. Pupils were both 4mm round with normal light reflex and no relative afferent pupillary defect. Anterior and posterior segments of both eyes were normal. Laboratory investigations revealed raised serum ammonia level (190 mmol/l) and altered liver enzymes. Fundus photo and magnetic resonance imaging (MRI) of the brain and orbit were normal.

**Results**

She was managed by medical team and all electrolyte parameters were corrected. Her vision improved gradually to 6/6 in both eyes with relief of HE and reduction in

serum ammonia level (154 mmol/l). A visual evoked potential of both eyes showed delayed P100 latencies thus consistent with cortical blindness (CB).

### **Conclusion**

CB secondary to HE in paediatrics is extremely rare worldwide. The visual recovery of CB depends on the resolution of HE. Prompt diagnosis and treatment are mandatory in such rare instances.

**COSCAB143****MULTIDRUG RESISTANT PSEUDOMONAS KERATITIS RESPONSIVE TO LEVOFLOXACIN MONOTHERAPY**

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<sup>1</sup>*Hospital Sultan Ismail Johor Bahru, Johor*

**Background**

*Pseudomonas aeruginosa*, a Gram-negative rod that is often found in water and soil, is a frequent cause of contact lens-related infective keratitis.

**Methods**

Case report. A 65-year-old man with left 6th & 7th cranial nerve palsy secondary to underlying left temporal bone SCC (T4N3M0) with extension to left cavernous sinus complaint of left eye discharge and redness for 3 days. On examination the patient was noted to have large thinning cornea infiltrate with purulent discharge and hypopyon level.

**Results**

He was treated as *Pseudomonas* keratitis when cornea scrapping revealed *Pseudomonas aeruginosa* Multidrug resistant organism (MRO) was isolated. Patient was started on topical Levofloxacin hourly. The infection responded well to topical Levofloxacin and resolved within 1 month without any other adjunct treatment.

**Conclusion**

*Pseudomonas* keratitis being more difficult to treat and have worse prognosis than other forms of bacterial keratitis. Topical levofloxacin may be a useful treatment option for multidrug-resistant *Pseudomonas* corneal ulcers that are resistant to conventional therapy.

**COSCAB144****MAGIC DRUG: DEXAMETHASONE IN THE TREATMENT OF TRAUMATIC OPTIC NEUROPATHY**

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**Background**

Traumatic optic neuropathy (TON) is an acute injury to optic nerve secondary to trauma, TON may result in profound vision loss. Mechanical shearing of the optic nerve axons and contusion necrosis due to immediate ischemia from damage to the optic nerve microcirculation and apoptosis of neurons is a probable mechanism. Treatment of TON is controversial as high dose of steroid or decompression of optic nerve have no superior to observation. However, studies have shown that corticosteroids may help in visual prognosis.

**Methods**

Case report. A 20-year-old gentleman presented with left eye (LE) blurry of vision after he was involved in a motorbike accident. He sustained multiple intracranial bleeds, multiple facial bone fractures, multiple facial lacerations and left eye periorbital hematoma. On examination of LE, relative afferent pupillary defect was present with best corrected vision of 1/60. Light brightness and red desaturation in the LE were reduced by 50%. Posterior segment examination was unremarkable.

**Results**

A diagnosis of LE traumatic optic neuropathy was made. However, diagnosis and treatment were delayed more than 48 hours after trauma due to patient's unstable general condition. Due to covid-19 pandemic there was a shortage of methylprednisolone stock. Therefore, intravenous dexamethasone was given for 3 days followed by 11 days of oral prednisolone. Following that, patient successfully regained vision of 6/9 in the affected eye 2 weeks after treatment.

**Conclusion**

Studies have shown that methylprednisolone is not superior to dexamethasone in treating traumatic optic neuropathy with dexamethasone having lesser side effect and cost effective.

**COSCAB145****THE OUTCOME OF DESCEMET MEMBRANE ENDOTHELIAL KERATOPLASTY (DMEK) WITH DIFFERENT TAMPONADE MATERIAL**

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**Background**

Descemet membrane endothelial keratoplasty (DMEK) is a partial thickness cornea transplant involving replacement of the host Descemet membrane (DM) and endothelium by donor DM and endothelium. Several types of materials can be used as a tamponade during DMEK. The study was conducted to compare the outcome of different tamponade material in DMEK.

**Methods**

Retrospective, interventional case series that includes 8 patients underwent DMEK performed by a single surgeon within Covid-19 pandemic period. All donor tissues were stripped by the operating surgeon with endothelial cell density of  $\geq 2400$  cells/mm<sup>2</sup>. The tamponade material used were air in 2 patients, 20% sulfur hexafluoride (SF<sub>6</sub>) gas in 3 patients and 12% perfluoropropane (C<sub>3</sub>F<sub>8</sub>) gas in 3 patients. The main outcomes were graft detachment rate, rebubbling rate and graft survival rate.

**Results**

The overall graft detachment rate was 25% (2 patients). The graft detachment rate was 0% in 20% SF<sub>6</sub> gas group compared to 50% (1 patient) from air tamponade group and 33.3% (1 patient) from 12% C<sub>3</sub>F<sub>8</sub> gas group ( $p < 0.05$ ). The patient from air group underwent rebubbling twice while another patient from 12% C<sub>3</sub>F<sub>8</sub> gas group underwent once. The overall survival rate was 75% (6 patients). All of them did not have graft detachment.

**Conclusion**

20% SF6 gas provides superior tamponade effect compared to both air and 12% C3F8 gas. The detachment rate influenced graft survival. Air tamponade showed higher rebubbling rate.

**COS CAB150****ADULT-ONSET CRANIOPHARYNGIOMA COMPLICATED WITH CENTRAL DIABETES INSIPIDUS POSTOPERATIVELY**

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**Background**

To report a case of adult-onset craniopharyngioma, which is uncommon for the age of presentation. The patient presented with right eye compressive optic neuropathy, who subsequently underwent supraorbital craniotomy and tumour excision surgery. Post-operatively she developed central diabetes insipidus and was treated with oral desmopressin.

**Methods**

Case report. A 30-year-old healthy lady presented with right eye painless blurring of vision associated with worsening of visual field defect for two months duration. She developed symptoms of raised intracranial pressure such as persistent headache, nausea and vomiting. However, she did not have hyper-pituitary symptoms on presentation. On examination, her right visual acuity was counting fingers, and there was a relative afferent pupillary defect. The right optic disc appeared hyperaemic with a cup-disc ratio of 0.4. Left eye examination was normal. Visual field assessment showed bitemporal hemianopia. Brain imaging showed a non-enhancing sellar mass with suprasellar extension. There was evidence of calcification and optic chiasm compression.

**Results**

She underwent supraorbital craniotomy and tumour excision surgery. Postoperatively, she developed diabetes insipidus as evidenced by increased urine output

with raised serum osmolality. She was then co-managed with the endocrinologist and started on Desmopressin. Postoperative surveillance was done by close monitoring of her hydrational status and electrolytes.

## **Conclusion**

Although craniopharyngioma is generally benign, the tendency to infiltrate the adjacent cerebral structures may lead to devastating complications. Thus, adult-onset craniopharyngioma with compressive optic neuropathy will require tumour excision surgery. Postoperative care with pituitary function monitoring is essential to detect central diabetes insipidus. Hence this complication can be co-managed with the endocrinologist.

**COSCAB151****A CASE OF NEVUS OF OTA WITH ADVANCED OPEN ANGLE GLAUCOMA**

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**Background**

Nevus of Ota, also known as oculodermal melanocytosis (ODM), is a pigmented disorder affecting ocular tissues and the skin along the distribution of the first and second divisions of trigeminal nerve. Elevated intraocular pressure occurs in approximately 10% of eyes with ODM.

**Methods**

Case report. A 62-year-old Indonesian lady presented with bilateral painless blurring of vision for 2 years. On examination, her right eye visual acuity was hand movement and left eye was 3/60. Relative afferent pupillary defect was present on the right eye. General inspection of the face revealed bluish-grey pigmentation over right cheek. Slit lamp examination of the right eye also showed same bluish-grey pigmentation over the conjunctiva. The right iris noted to be more pigmentation compared to the left. The intraocular pressure (IOP) was 58mmHg in the right eye and 18mmHg in the left eye. Gonioscopy showed both angles of the eyes open (grade 3), but the trabecular meshwork of the right eye was heavily pigmented. Both lenses were cataractous. Fundusoscopic examination revealed pale optic disc with cup to disc ratio (CDR) of 0.8, glaucomatous cupping in the right eye whereas left eye optic disc was normal with CDR of 0.3. No optic disc or choroidal hyperpigmentation detected. The visual field of the right eye was severely constricted demonstrated by Humphrey visual field test.

## **Results**

Diagnosis of right eye advanced open-angle glaucoma associated with Nevus of Ota was made. Patient was treated with topical 0.5% Timolol and 0.005% Latanoprost and was planned for early cataract operation.

## **Conclusion**

Nevus of Ota (ODM) is a rare pigmentation disorder affecting ocular tissues and the skin along the distribution of trigeminal nerve. Although nevus of Ota is a benign condition, patients do carry the risk of developing glaucoma and malignant cutaneous or ocular melanoma. Thus, patients presenting with nevus of Ota should undergo regular follow-up with ophthalmology and dermatology.

**COSCAB152****ORBITAL BURKITT'S LYMPHOMA PRESENTED WITH RAPID OPTIC NERVE FUNCTION DETERIORATION: A CASE REPORT**

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**Background**

Burkitt's lymphoma is an aggressive form of lymphatic system malignancy, particularly affecting the B-cell lymphocytes.

**Methods**

Case report. A 45-year-old lady with no known medical illness presented with acute non-axial proptosis of the right eye associated with diplopia and headache for 5 days duration. Visual Acuity (VA) for the right eye at presentation was 6/9, relative afferent pupillary defect (RAPD) was negative and all other optic nerve functions assessment was normal. However, the extra ocular muscle movements were noted to be limited in all directions. Left eye examination revealed normal findings. There were also palpable lymph nodes over her left cervical region. Systemic examinations were unremarkable. We documented a rapid deterioration of her right eye optic nerve function over a period of 5 days of her admission. An urgent contrast enhanced computed tomography showed a displaced right eye optic nerve caused by lobulated enhancing soft tissue mass located at the right retro-orbital region, involving both extra and intraconal space.

**Results**

Patient was referred to a nearest oculoplastic centre for right intraorbital incisional biopsy of the suspected mass. Histopathological study showed an aggressive B-cell

lymphoma, suggestive of Burkitt's lymphoma. Patient is currently under haemato-oncologist care for intensive chemotherapy.

### **Conclusion**

Orbital Burkitt's lymphoma is not uncommon. It should be suspected in any patient presented with rapid progressive proptosis. Daily assessment of the optic nerve function is mandatory to identify and prevent permanent optic nerve damage. Early detection and tissue biopsy are vital in establishing the diagnosis and initiation of treatment, with the main objective of preserving patient's vision and quality of life.

**COSCAB154****HYPOPYON UVEITIS IN A HEALTHY YOUNG ADULT WITH ANKYLOSING SPONDYLITIS**

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**Background**

Anterior uveitis accounts for 80-85% of uveitis. Approximately 50% of acute anterior uveitis (AAU) is associated with the allele HLA-B27(human leucocyte antigen B27). Common systemic associations are ankylosing spondylitis, psoriatic arthritis, inflammatory bowel disease and Reiter's syndrome.

**Methods**

Case report. A 22-year-old healthy male presented with one week history of left eye redness, decreased in visual acuity and photophobia. Patient had history of resting back pain for the past one year with no preceding trauma to the back. Examination revealed unremarkable right eye findings and left eye severe non granulomatous anterior uveitis with non-shifting hypopyon. Baseline uveitis work up were unremarkable. However, lumbosacral X-ray image and reporting revealed sacroiliitis Grade 3, which is an early feature of ankylosing spondylitis. Schober's test was negative. HLA-B27 serology was taken and result pending. Fundus fluorescein angiography revealed no signs of occlusive vasculitis.

**Results**

Sign of sacroiliitis on spine x-ray with typical uveitis findings in the anterior segment made a significant clinical impression of AAU in this patient despite all the baseline uveitis work up were normal. While waiting for the HLA-B27 serology result to come back, patient's left eye was treated with topical steroids and cycloplegic and the anterior chamber inflammation improved.

**Conclusion**

This case highlights the importance of eliciting relevant history and signs for early diagnosis and treatment of HLA-B27 associated disease.

**COS CAB155****UNBREAKABLE TUBERCULOSIS WARRIOR: TUBERCULOSIS (TB) IMITATE CAT SCRATCH DISEASE (CSD) IN PARINAUD OCULOGLANDULAR SYNDROME (POGS)**

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**Background**

Parinaud oculoglandular syndrome (POGS) is a unilateral granulomatous follicular conjunctivitis either at bulbar or palpebral with ipsilateral preauricular and submandibular lymphadenopathy. Symptoms often developed between 3-10 days following inoculation. *Bartonella henselae* (BH) is the most common causative organism of POGS. Other possible aetiologies are *Mycobacterium tuberculosis*, *Francisella tularensis*, *Yersinia pseudotuberculosis*, *Treponema pallidum*, herpes simplex virus, and Epstein-Barr virus.

**Methods**

Case report. A 32-year-old gentleman complained of left eye pain and redness for 1 week duration. Subsequently he noted nodular swelling behind the ear and jaw. He denied any history of contact with TB patient. There was no evidence of CSD symptoms either. Oral augmentin and gutt chloramphenicol was given by general practitioner yet no improvement seen. Systemic examination revealed palpable ipsilateral preauricular and submandibular lymph nodes. Left eye slit lamp examination revealed follicular conjunctivitis. The remainder of the eye examinations were unremarkable. Aetiological work up was performed. Laboratory results were within normal limits except for Mantoux test was 16mm and chest radiography showed hilar lymphadenopathy.

## **Results**

Patient was treated as POGS at first. Topical fusidic acid and oral doxycycline was started for 6 weeks. Left eye redness reduced but in view of his significant Mantoux reading and CXR finding, patient was referred to medical for further work up for tuberculosis. He also reviewed by ENT team for lymph node biopsy.

## **Conclusion**

Tuberculosis must be ruled out in cases of unilateral conjunctivitis and ipsilateral lymphadenopathy and at the same time it is crucial to treat POGS as prompt treatment can save a vision.

**COSCAB156****NECROTISING FASCITIS MIMICKER: A CASE REPORT OF  
EXTRANODAL RIGHT ORBITAL NK/T-CELL LYMPHOMA WITH  
TUMOUR NECROSIS**

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**Background**

Extranodal natural killer (NK)/T-cell lymphoma is an aggressive malignancy of putative NK-cell origin, with a minority deriving from the T-cell lineage.

**Methods**

We report a case of a 50-year-old Chinese male presenting with an extensive right periorbital ulcerative wound for three months. He was initially treated as necrotizing fasciitis involving right orbit and facial skin.

**Results**

Excision biopsy of the right eye mass was done and the histopathological result showed extranodal NK/T cell lymphoma, nasal type. He subsequently underwent multiple periorbital wound debridement during ward admission. He also received chemotherapy which initially was LVP (L-asparaginase, vincristine prednisolone) then half CHOP (cyclophosphamide, doxorubicin, vincristine, prednisolone). This was stopped halfway when the patient developed tumour lysis syndrome. Patient condition deteriorated subsequently and had multiple issues in ward (kidney failure with metabolic acidosis, pulmonary oedema, myocardial infarction, disseminated intravascular coagulation and septic shock). Due to poor prognosis and multi organ failure, he eventually succumbed to death.

**Conclusion**

Extranodal NK/T-cell lymphoma nasal type presenting as right periorbital wound is rare in Malaysia. It can mimic aggressive necrotising fasciitis. Early detection and biopsy can help prevent mortality.

**COSCAB157****A RARE CASE OF IDIOPATHIC BILATERAL FROSTED BRANCH ANGIITIS WITH EXUDATIVE RETINAL DETACHMENT**

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**Background**

Frosted branch angiitis was originally described in the Japanese literature by Ito in 1976. It is a descriptive term for retinal vasculitis characterized by severe infiltration of perivascular space with lymphoplasmacytic infiltrates. This gives an appearance of frosted branches of a tree. Frosted-branch angiitis is mostly seen in children and young adults. Most cases of frosted-branch angiitis are idiopathic. This is to report a rare case of bilateral frosted branch angiitis with exudative retinal detachment (RD).

**Methods**

Case report. A 5-year-old girl with no known underlying medical illness presented with progressively worsening reduced vision in both eyes for 1 month. On examination, her visual acuity was counting fingers in both eyes with presence of relative afferent pupillary defect in the right eye. Anterior chamber examination of both eyes was normal. Fundus examination of both eyes showed vascular sheathing in all quadrants with subtotal exudative retinal detachment involving macula. Haematological investigations revealed normal full blood count, C-reactive protein and erythrocyte sedimentation rate. Serology for herpes simplex virus, human immunodeficiency virus, hepatitis b, hepatitis c and *Toxoplasma gondii* were non-reactive. Tuberculosis workup was also unremarkable.

**Results**

She was diagnosed with bilateral frosted branch angiitis with exudative retinal detachment. She was given intravenous acyclovir for 10 days followed by oral acyclovir for 6 weeks. Intravenous methylprednisolone was administered for 5 days

followed by oral prednisolone 1 mg/kg which was tapered over 2 months. Topical steroids were given for 3 weeks. Her vision gradually improved and the vasculitis and exudative retinal detachment resolved. Five months after treatment, her best corrected visual acuity improved to 6/6 in both eyes.

## **Conclusion**

Primary idiopathic frosted branch angiitis is a rare disease which usually affects young individuals. Early diagnosis and treatment can lead to good visual outcome.

**COSCAB158****TRAUMATIC OCULAR PENCIL LEAD INJURY**

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**Background**

Pencil lead is composed mainly of graphite and clay which is believed to be harmless and chemically stable. However, if left untreated, it may result in undesirable local pain, pigmentation, graphite foreign body reaction, and abscess formation.

**Methods**

Case report. A 3-year-old, girl with no underlying medical illness presented with right upper eyelid swelling for 4 days which was progressively worsening. She had a history of fall prior to that while holding a pencil. On examination, her entire right upper eyelid was swollen, erythematous and tender with an area of blackish discoloration at the medial region of her eyelid. A puncture wound with dark coloured discharge was present on the site of skin discoloration. Other ocular findings were unremarkable.

**Results**

She was diagnosed with preseptal cellulitis and started on IV Cloxacillin. Suspecting a foreign body, examination under anaesthesia and right upper lid incision and drainage was performed subsequently. Intraoperatively, there was no foreign body, but the underlying dermis and muscle fibres were stained black. She completed 10 days of antibiotics and recovered well. However, the medial region of her right upper eyelid remained hyperpigmented during review 15 months later.

**Conclusion**

Pencil lead injuries are not uncommon, especially in young children. Thorough history taking regarding the mode of injury is vital in these cases to ensure a retained foreign body is not missed. The lead of a pencil is composed of graphite. Though considered as biologically inert, it may cause undesirable reactions, such as soft tissue reaction and permanent pigmentation.

**COSCAB159****A TELL-TALE SIGN: DO YOU PANIC WHEN YOU STUMBLE UPON A BLURRY DISC?**

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**Background**

Optic disc swelling (ODS) is a nonspecific term that describes the ophthalmological finding of swelling of optic nerve head. This pathological condition has various aetiologies and therefore the ability to differentiate among the various aetiologies and to derive a final diagnosis is through a thorough history taking and clinical examination. The aim is to report 4 cases of varied spectrum of clinical presentation of bilateral ODS with different aetiologies at ophthalmology outpatient clinic.

**Methods**

Case series.

Case 1: A 22-year-old Malay female with body mass index (BMI) of 23 and no other comorbidities, presented to us with bilateral ODS associated with right-sided headache. Lumbar puncture revealed high opening pressure of 30cmH<sub>2</sub>O.

Case 2: A 42-year-old morbidly obese Malay female with a BMI of 71 presented with both eye poor vision. Her right eye vision was PL with positive relative afferent pupillary defect (RAPD). Fundus showed bilateral ODS. Computed tomography (CT) of brain showed olfactory groove meningioma.

Case 3: A 10-year-old Chinese boy with underlying juvenile inflammatory arthritis was found to have incidental finding of bilateral ODS during routine screening. His vision was 6/9 for both eyes with impaired optic nerve function test.

Case 4: A 55-year-old Indian man with underlying diabetes mellitus and hypertension complained of both eyes blurring of vision for 2 weeks. His vision was 6/60 for both eyes. His blood pressure measured at 190/102 on presentation.

## **Results**

All four cases presented with bilateral ODS of different diagnosis. Case 1 was treated as idiopathic intracranial hypertension (IIH). Case 2 was diagnosed to have olfactory groove meningioma and she underwent craniotomy with tumour debulking. Case 3 was treated as BE optic neuritis and pulsed with steroids and case 4 was diagnosed with bilateral ODS secondary to grade IV hypertensive retinopathy.

## **Conclusion**

We highlighted that bilateral ODS requires an urgent comprehensive evaluation to establish diagnosis. Hence, early detection and appropriate management under multidisciplinary approach are essential in cases of ODS of any cause.

**COSCAB162****PERIPHERAL ULCERATIVE KERATITIS (PUK) WITH GRANULOMATOUS UVEITIS**

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**Background**

Peripheral ulcerative keratitis (PUK) is an immunologic condition mediated by both abnormal T-cell and antibody-mediated pathways.

**Methods**

Case report. A 62-year-old healthy lady presented with right eye (RE) blurring of vision for a month duration. It was associated with pain and redness. Left cataract surgery three years ago. RE vision hand movement, Left eye (LE) 3/60. Relative afferent pupillary defect (RAPD) negative. RE was congested, cornea clear, AC deep, with flare and cell3+, present of fibrin and posterior synechiae with cataract. There was evolving inflammation and multiple iris nodules. Intraocular pressure was low at 0mmHg, digitally soft eyeball. LE was white, with clear cornea, AC deep, cells 2+, aphakic and normal fundus findings. Systemic examination was unremarkable. B scan showed vitritis, thickened sclera with area of exudative retinal detachment. Investigations revealed negative infective screening and negative Mantoux. Septic work-up and tumour markers were normal. Antineutrophil cytoplasmic antibodies (ANCA) were negative.

**Results**

Based on the patient's history and investigations, a diagnosis of PUK with granulomatous uveitis was made. Patient was started on topical and oral steroids, added second-line azathiopine later on. Subsequent follow up showed clinical improvement. PUK resolved in two weeks while uveitis resolved over a few months.

**Conclusion**

PUK with granulomatous uveitis may present in infective, inflammatory or autoimmune diseases. Common infective causes may include tuberculosis and syphilis. Granulomatous polyangitis is a multisystemic vasculitis disease which associated with ANCA. It requires multidisciplinary approach in management. However, ANCA-negative GPA is not impossible.

**COSCAB164****SARCOIDOSIS-ASSOCIATED UVEITIS: A CASE SERIES**

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**Background**

Sarcoidosis is an inflammatory disease that affect one or more organs. These case series are to describe the presentation of sarcoidosis associated uveitis in patients who had evidence of non-caseating epithelioid granuloma from non-ocular tissue biopsies and cytological study.

**Methods**

Case series.

First case: A 43-year-old Malay female, both eyes (BE) intermediate uveitis (IU). VA 6/18 (OU) Ocular features: BE anterior chamber (AC) and anterior vitreous inflammation, vitritis, bilateral optic disc swelling and peripheral multifocal pinpoint choroiditis. Non-ocular features: Red, elevated nontender lesions on upper limb flexors, anterior shin and thigh. Skin biopsy showed noncaseating “naked” granulomas infiltrating the dermis. Ziehl-Neelsen (ZN) was negative for acid-fast bacilli, while Grocott methenamine silver (GMS) and periodic acid–Schiff (PAS) stained negative for fungus.

Second case: A 40-year-old Indian female, BE IU with secondary high IOP. VA 6/18 (OD), CF (OS). Ocular features: BE AC inflammation with almost 360° posterior synechiae and high IOP (L>R), vitritis, hyperaemic swollen disc and cystoid macular oedema (CMO). Non-ocular features: Symptom of cough. CT thorax showed extensive mediastinal and bilateral hilar lymphadenopathy. Cytology of bronchial lymph nodes showed epithelioid granulomata without necrosis and negative for fungal and acid-fast bacilli stains.

Third case: A 33-year-old Indian male, BE IU. VA 6/18 (OD), 6/9 (OS) Ocular features: BE old granulomatous keratic precipitates (KPs), anterior vitreous inflammation,

classic perivenous “candle wax drippings” vasculitis and BE hyperaemic disc. Non ocular features: Elevated creatinine. Kidney biopsy showed granulomatous inflammation and tubulointerstitial nephritis with no necrosis seen. ZN stain was negative.

## **Results**

All three cases were diagnosed as sarcoidosis based on clinical ocular findings. Non-caseating epithelioid granuloma findings from biopsy of the non-ocular tissue supported the diagnosis further.

## **Conclusion**

The diagnosis of sarcoidosis-associated uveitis is challenging owing to the highly diverse and non-specific ocular and systemic presentation. Subacute presentation can occur and patient may be relatively asymptomatic until the inflammation is well established.

**COSCAB165****VARIATION IN REFRACTION RESULTS IN PREOPERATIVE REFRACTIVE SURGERY PATIENT**

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**Background**

Refractive surgery is currently one of the most popular procedures. With the increase in refractive surgery, preoperative refraction testing is an essential step for a successful operation.

**Methods**

This is a retrospective comparative study comparing the variations of refractive results obtained by manifest refraction (MR), wavefront refraction using Wavefront Supported Custom Ablation aberrometer (WASCA), Zeiss i-Profilor (ZIP), Righton Retinomax Handheld autorefractor (RRH), and focimeter (FOCI).

**Results**

A total of 104 eyes from 52 patients with no history of ocular disease or corneal surgery were included in the study from January to May 2021, with mean age 30.9(SD= 6.89) years were included in the study. Most of the patients were female (70.8%) and Malay (91.7%). The analysis was carried out in terms of spherical equivalent. The results showed that there are significant differences in all possible pairwise comparison between five refractive methods ( $P < 0.05$ ). The mean difference (MD) was highest between WASCA and FOCI (MD = 1.44D) followed by MR and WASCA (MD=0.82D), ZIP and WASCA (MD = 0.63D), FOCI and MR (MD= 0.62D), RRH and WASCA (MD= 0.59), MR and RRH (MD= 0.23), and MR and ZIP (MD=0.20). However, there is no significant difference between ZIP and RRH preoperative refraction results (MD= 0.03;  $P=0.753$ ).

**Conclusion**

Only ZIP and RRH autorefractor show spherical equivalent readings closer to manifest refraction indicating that both methods could be used clinically in measuring refractive power among preoperative refractive surgery patients.

**COSCAB166****ISTENT TRABECULAR MICRO-BYPASS STENT IMPLANTATION IN A PATIENT WITH POSNER-SCHLOSSMAN SYNDROME**

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**Background**

Posner-Schlossman Syndrome (PSS), also known as glaucomatocyclitic crisis, is a condition characterised by unilateral recurrent episodes of acute elevated intraocular pressure (IOP) accompanied by mild non-granulomatous anterior chamber inflammation and open anterior chamber angle. Repeated attacks over time may lead to secondary glaucoma with progressive visual field defects. Treatment of PSS aims at controlling inflammation and lowering IOP. This case report illustrated the outcome of PSS treated with iStent implantation.

**Methods**

Case report. A 58-year-old healthy male presented with intermittent attacks of blurry vision and pain in the right eye for 6 months. He was symptom free in between attacks. Examination revealed keratic precipitates with an IOP of 56mmHg in the right eye. Gonioscopy revealed open angles in both eyes. Aqueous tap for viral PCR were negative. Erythrocyte sedimentation rate was within normal limits, rapid plasma reagent and Mantoux test were negative.

**Results**

He was treated as PSS. Topical and oral IOP-lowering agents were started. IOP subsequently was in high teens on 2 topical antiglaucoma medications but he had encountered ocular surface problems with topical drops. iStent implantation was performed and all topical medications were tapered gradually. His IOP remained

stable within mid-teens and there was no recurrent episode of raised IOP in the following 6 months since the surgery.

## **Conclusion**

Medical treatments are indicated to reduce inflammation and prevent long-term glaucomatous optic nerve damage related to high IOP in PSS. The iStent implant is a safe and effective treatment option in various types of open angle glaucoma. This case report highlights the IOP-lowering effect of iStent implant in secondary glaucoma and its unforeseen effect of seemingly retarding the recurrence of hypertensive attacks in PSS.

**COSCAB168****COMBINED PHACOEMULSIFICATION AND ISTENT INJECT IMPLANTATION IN OPEN-ANGLE GLAUCOMA PATIENTS**

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**Background**

iStent is a minimally invasive glaucoma surgery (MIGS) device that allows aqueous humour to drain directly from the anterior chamber into Schlemm's canal by bypassing an obstructed trabecular meshwork, commonly used in treatment of primary open angle glaucoma. This case series is compiled to evaluate the safety and efficacy of iStent inject implantation combined with phacoemulsification in patient with open-angle glaucoma.

**Methods**

This is a retrospective case series that includes 15 eyes that underwent combined phacoemulsification and iStent inject device implantation, performed by a single surgeon in IIUM Eye Specialist Centre from January 2017 to February 2020 on patients with co-existing cataracts and open-angle glaucoma. Primary outcome measures included 12 months postoperative intraocular pressure (IOP) and number of IOP lowering medication. Safety outcomes includes ocular adverse events, surgical complications and incidence of transient or permanent rise in IOP.

**Results**

At 12 months postoperatively we observed a 20% reduction of IOP with mean IOP of 17mmHg. This reduction in mean IOP was also observed at all other postoperative time points. Postop 1 month: 15.8mmHg; Postop 3 months: 13.5mmHg; and Postop 6 months: 18.4mmHg. The number of IOP lowering agents was reduced to

a mean of 1.4 bottles at month 12 from preoperative mean number of 2.2 bottles. There were no serious ocular adverse event and surgical complications reported.

### **Conclusion**

Combined phacoemulsification and implantation of iStent inject device is effective with good safety profile in sustaining reduction of IOP up until 12 months postoperatively and lessen medication burden in patient with open-angle glaucoma.

**COSCAB169****MANAGEMENT OF A CASE OF LACTEOCRUMENASIA**

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**Background**

Lacteocrumenasia is also known as liquefied after cataract. It may be considered as part of the spectrum of capsular bag distension syndrome and it is a rare late complication of standard cataract surgery. It is reported as a milky white substance which accumulates in the space between the intraocular lens (IOL) and posterior capsule in the late postoperative period.

**Methods**

Case report. A 67-year-old Chinese lady presented to our clinic complaining of left eye decrease in vision over the past few months. She underwent bilateral uncomplicated cataract operation with IOL implantation more than 10 years ago. Right eye vision was 6/6, left eye vision was 6/6-1. Slight lamp biomicroscopy showed a homogeneously opaque retrolental fluid layer.

**Results**

A single shot of NdYAG laser was aimed and applied on the posterior capsule, after which a liquefied white milky substance was observed to drain slowly from the posterior capsular opening into the posterior chamber. After 30 minutes, the space between the IOL and the posterior capsule was clear, and the patient reported an immediate improvement in her vision.

**Conclusion**

The occurrence of lacteocrumenasia is very uncommon. It is difficult to perceive and often misdiagnosed as opacification of the posterior capsule or IOL instead, which can lead to mismanagement or unnecessary damage to the IOL. It can be managed easily and safely with NdYAG capsulotomy and significant improvement in vision is noted immediately by the patient.

**COS CAB170****ORBITAL VENOUS LYMPHATIC MALFORMATION**

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**Background**

Orbital venous-lymphatic malformations (OVLMs) (previously referred to as ‘lymph-angiomas’) are uncommon, benign cystic vascular malformations. Spontaneous intraorbital haemorrhage or venous thrombosis may cause sudden acute proptosis, severe pain, compressive optic neuropathy or loss of vision, when intervention is indicated.

**Methods**

Case report. A 4-year-old boy presented with a 2-month history of left-sided progressive painless upper eyelid swelling with acute worsening. At presentation, his visual acuity (VA) was light perception in the left eye (LE) and 6/15 in the right eye (RE). Examination revealed non axial infra-placement of the globe with overlying bluish discoloration. The upper eyelid swelling was soft to firm consistency, non-tender with no palpable thrill.

Anterior segment and posterior segment examination of both eyes were unremarkable. Magnetic resonance imaging of the orbit showed left superior extraconal orbital mass measuring 3.2cm (AP) x 1.4cm (CC) x 2.7cm (W) with fluid-filled level and internal septation.

**Results**

An ultrasound-guided aspiration of the mass was performed and blood clots were aspirated. The mass reduced in size and the best corrected visual acuity in the left

eye improved to 3/60 with improvement of the hypotropia and exotropia of the left eye.

### **Conclusion**

An orbital venous lymphatic malformation is a rare congenital lesion and difficult to treat effectively. Proper clinical judgement, imaging and judicious intervention warranted to prevent vision deprivation amblyopia or blindness and severe cosmetic disfigurement.

**COSCAB172****WHY DOES MY CHILD LOOK SLEEPY?**

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**Background**

Juvenile myasthenia gravis is a rare antibody-mediated autoimmune disorder with an onset before 18 years of age. Ocular manifestations similar to those in adults are ptosis and strabismus. This case report is a rare case of juvenile myasthenia gravis with ocular and bulbar involvement.

**Methods**

Case report. A 5-year-old Malay girl was brought by the mother with complaints of inward deviation of eyes, drooping of eyelids and abnormal voice for a month. Clinical examination revealed bilateral ptosis with restricted eye movements in all gazes. Bizarre pattern was noted from the Hess Chart. Cogan lid twitch test and ocular fatiguability test were positive. Ice-pack test showed dramatic transient improvement in ptosis.

**Results**

A clinical diagnosis of juvenile myasthenia gravis with ocular and bulbar involvement was made and the child was co-managed with a paediatric neurologist. Serum acetylcholine receptor antibody test was negative. Significant improvement of ptosis and ophthalmoplegia were observed with commencement of oral Pyridostigmine and Prednisolone. Her ptosis, eye movements and voice improved at 1 month follow up.

**Conclusion**

Juvenile myasthenia gravis is a rare autoimmune disorder of the childhood. High index of suspicion is warranted as muscle fatiguability is its clinical hallmark. Prompt treatment gives an overall good prognosis.

**COSCAB174****A CASE OF DELAYED SECOND EYE INVOLVEMENT IN ACUTE RETINAL NECROSIS (ARN)**

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**Background**

ARN is an inflammatory condition which may present as panuveitis. Varicella zoster virus (VZV) and herpes simplex virus (HSV) are the common causative organisms. This case describes a condition of delayed second eye involvement in an ARN 10 years later and the challenges in treatment.

**Methods**

Case report. A 17-year-old boy presented with insidious onset of progressively worsening left eye blurring of vision for a week. This was associated with eye pain and redness. On examination, the left eye vision was 2/60. Slit-lamp examination showed ciliary injection with non-granulomatous anterior uveitis. He had dense vitritis of 4+, disc swelling, circumferential peripheral retinal necrosis temporally, which coalesced from 12 to 7 o'clock, intraretinal haemorrhage at 7 o'clock, with occlusive vasculitis. Past ocular history revealed a history of chickenpox at the age of 7, whereby a few weeks later, he developed right eye redness and blurred vision. However, he did not seek medical treatment, and eventually, the eye became blind.

**Results**

A clinical diagnosis of ARN of the left eye was made. He was commenced on intravenous Acyclovir 10mg/kg body weight TDS, and addition of oral Prednisolone 1mg/kg body weight OD 3 days later. The treatment was complicated with acute kidney injury, requiring regular intravenous hydration, not requiring dialysis. The treatment was then changed to T. Valacyclovir 1g TDS for a total of 6 weeks. A polymerase chain reaction (PCR) analysis of aqueous fluid from the left

eye confirmed HSV-2 aetiology. Subsequently, he underwent left eye pars plana vitrectomy with silicone oil tamponade due to rhegmatogenous retinal detachment with retinal break inferiorly. He had a total of 3 doses of intravitreal Ganciclovir (2 pre-operatively and one intra-operatively). He regained the best-corrected visual acuity of 6/9 two weeks post-operatively.

## **Conclusion**

ARN is a rare presentation, moreover, with delayed second eye involvement of 10 years apart. Prompt diagnosis, rapid and appropriate treatment are paramount to prevent further vision loss. PCR analysis is the preferred method to precisely identify the viral aetiology of ARN with specificity and sensitivity of greater than 90%. Aggressive antiviral therapy is the mainstay treatment for ARN. Oral valacyclovir (acyclovir pro-drug) has better bioavailability with less systemic side effects to treat HSV-1, HSV-2, or VZV related ARN. The combination of systemic and intra-vitreous therapy has been proven to have greater visual acuity gain and functional outcomes. Corticosteroids in the form of topical drops or oral act as an adjunct to control intense inflammatory response in ARN.

**COSCAB175****POPULATION CHARACTERISTICS OF DIABETIC RETINOPATHY PRESENTATION AT HOSPITAL SERDANG**

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**Background**

Diabetic eye disease is a burden to tertiary hospitals as the number of cases increases every year. Primary prevention requires preventing or delaying the onset of diabetic retinopathy in diabetic patients with good systemic blood sugar control and the risk factor contributing to it. This study done is to review the diabetic eye disease burden in Hospital Serdang.

**Methods**

A retrospective review of the prevalence and demographic characteristics of new patients presenting at the diabetic eye screening services at Hospital Serdang between January and March 2020. Data were collected from medical records of patients referred to the screening clinics between January and March 2020. Information gathered include visual acuity, patient demographic data, co-morbidities, classification of severity, management, and follow up details of patients. \_

**Results**

A total of 135 patients were screened. The majority of patients reviewed were referred from the Kajang, Puchong and Seri Kembangan healthcare districts, representing about 52% of the screened population. The mean age of presentation was 56.5 years. Patients with proliferative retinopathy presented earlier, at age 50, compared to pre proliferative, at age 58. 23% of patients had the proliferative disease during the first presentation. 23% of the patients presented had diabetic macular oedema in which seven (5.2%) patients requiring laser treatment at presentation. Two patients (1.5%) were referred to Hospital Selayang vitreoretinal unit for

further intervention. Twenty-one patients (16%) had sight-threatening retinopathy at presentation.

## **Conclusion**

Based on the study of the Serdang population, the percentage of patients presenting with severe disease and poor vision is still high, and a good proportion of patients had good vision with no retinopathy. Hence, a clearer structured diabetic retinopathy screening programme at the primary care level with greater awareness is necessary for early referral to prevent blindness. A periodic outreach programme may also reduce the burden of diabetic eye care clinics at tertiary levels.

**COSCAB178****MALIGNANT EYELID TUMOURS IN HOSPITAL KUALA LUMPUR: A 3-YEAR CASE SERIES**

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**Background**

Malignant eyelid tumours often present as an ill-defined lesion and usually require wide excision and reconstructive surgery.

**Methods**

A retrospective case series.

**Results**

This case series included 14 patients with slight female preponderance with median age of 60 years (range 19-78 years old) and no ethnicity predilection. Fair skin, ultraviolet light and radiotherapy exposure were among identifiable risk factors. All patients had typical malignant features except for spindle cell carcinoma and mucinous adenocarcinoma, which mimicked benign lesions. Lower lid presentations were more common (11/14 patients). All involved the lid margin, one at medial canthus and two with punctal involvement. Six patients had lesions more than half of the lid length. Incisional biopsy was performed prior to definitive treatment except those that mimicked benign lesions. Histopathological examination revealed three basal cell carcinoma (BCC), two basosquamous carcinoma (BSC), two squamous cell carcinoma (SCC), five sebaceous gland carcinoma (SGC), one spindle cell carcinoma and one mucinous adenocarcinoma. Surgery with tumour margin clearance was performed in 10/14 patients which subsequently proceeded with lid reconstruction (5 Hughes procedure, 1 Cutler Beard procedure, 1 Tenzel Semicircular Flap, 1 sliding tarsoconjunctival flap and 2 free tarsoconjunctival graft). One of the 10 patients had recurrence and underwent

orbital exenteration (SGC). Among the remaining four patients, three presented to us with orbital extension and underwent orbital exenteration in which two were referred for Recurrent SGC and one BSC who presented with fungating mass. One out of the four patients was not keen for surgical intervention and was referred for palliative radiotherapy.

## **Conclusion**

Malignant eyelid tumours can mimic benign features. It can happen in a teenager with no risk factors. Early detection and tumour removal with margin control reconstructive surgery with or without adjunctive radiotherapy help in better prognosis.

**COSCAB179****INCIDENCE, CLINICAL PROFILE AND VISUAL OUTCOME OF INTRACAPSULAR CATARACT EXTRACTION: A FIVE-YEAR ANALYSIS IN HOSPITAL MELAKA, MALAYSIA**

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**Background**

Cataract can develop in early childhood or in elderly. Cataract surgery underwent evolution from intracapsular cataract extraction (ICCE) to extracapsular cataract extraction (ECCE) and currently to phacoemulsification. In ICCE surgery, intraocular lens (IOL) can be implanted in anterior chamber, clipped to the iris using iris claw IOL and fixed to the sclera using scleral fixated IOL. This study is evaluated to describe incidences of ICCE in Hospital Melaka including causes and visual outcome of the surgery performed.

**Methods**

A retrospective review of patients who underwent ICCE in Hospital Melaka from January 2016 till December 2020.

**Results**

A total of 58 ICCE surgeries from 51 patients were performed. Thirty-seven (63.8%) male patients had undergone ICCE and twenty-one (36.5%) were female patients. Nineteen (32.8%) patients aged between 60-69 years old followed by twelve (20.7%) patients aged 70-79 years old and ten (17.2%) patients aged from 1-9 years old. Other age groups are lesser in numbers. Malay had the highest incidence rate, accounted about twenty-six (44.8%) patients followed by twenty-three (39.7%) Chinese and eight (13.8%) were Indian. Causes of cataract varies, eighteen (31.0%)

patients suffered from senile cataract with weak zonular support, fifteen (25.9%) developed cataract post trauma, twelve (20.7%) patient diagnosed as congenital cataract, two (3.4%) patients had pseudoexfoliation and eleven (19.0%) patients fall under iatrogenic causes. Eighteen patients (31.0%) had primary anterior chamber intraocular lens implanted, whereas fifteen (25.9%) patients suitable for iris claw lens, and only seven (12.1%) patients needed scleral fixated lens. Eighteen (31.0%) patients were left aphakic. Post operatively at twelve weeks based on WHO guidelines, thirty-three (56.9%) patients had good vision, 6/12 and better, whereas six (10.3%) patients gained 6/18 to 6/36 and poor vision less than 6/60 accounted for seventeen (29.3%) patients.

## **Conclusion**

The incidence of ICCE was low, which was fifty-eight (0.49%) patients out of 11,823 cataract operations that were done. Senile cataract with weak zonular support outnumbered other causes of ICCE and majority of patients achieve good visual outcome at twelve weeks of surgery in Hospital Melaka. There is no difference statistically between visual outcome, causes and different types of IOL implant.

**COS CAB180****XEN GEL IMPLANT IN SECONDARY GLAUCOMAS**

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**Background**

XEN gel implants are primarily advocated for cases of primary open angle glaucoma, cases of pseudoexfoliative or pigmentary glaucoma with open angles. It has been developed for long-term reduction of IOP with a better safety profile than conventional surgery. This implant bypasses the trabecular meshwork (TM) by creating a new channel to drain aqueous humour.

**Methods****Case series.**

Case 1: A 59-year-old man presented with left intermittent painful red eye for the past three years. Left ocular examination revealed visual acuity (VA) of 6/12 with anterior uveitis and intraocular pressure (IOP) of 30mmHg, despite being on maximal topical antiglaucoma therapy. Gonioscopy revealed open angles apart from the presence of peripheral anterior synechiae (PAS) at 5 o'clock. The optic disc was glaucomatous with a large cup-disc ratio (CDR) of 0.7.

Case 2: A 40-year-old man was referred for left refractory glaucoma secondary to iridocorneal endothelial (ICE) syndrome. His left VA was 6/18 and ocular examination revealed a superior polycoria with PAS from 6 to 8 o'clock. His IOP fluctuates between 15 to 31mmHg in spite of maximal topical antiglaucoma therapy. No angle structures were seen nasally, otherwise part of trabecular meshwork was visualized elsewhere. His optic disc was pale with CDR of 0.9.

**Results**

Both cases are secondary glaucoma and were managed well with XEN gel implantation. Case 1 was diagnosed as Posner-Schlossman syndrome and case 2 with already

established diagnosis of ICE syndrome. Both patients' IOP were stable during few follow up after the implantation.

## **Conclusion**

XEN gel implants are primarily advocated for cases of primary open angle glaucoma, and cases of pseudoexfoliative or pigmentary glaucoma with open angles. Standalone Xen gel implant and combined Xen-phacoemulsification has demonstrated promising outcomes in terms of significant IOP reduction and safety in patients with secondary glaucoma.

**COS CAB182****ACUTE BILATERAL LOSS OF VISION AS ORGANIC MANIFESTATION OF REPRESSED PSYCHOLOGICAL STRESS**

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**Background**

Non-organic visual loss refers to any visual disturbances in the absence of any detectable structural dysfunction between the cornea and occipital cortex. Up to five percent of patients seen by ophthalmologists present with non-organic vision loss mainly of two forms, malingering and visual conversion disorder. Visual conversion disorder is a type of dissociative sensory loss disorder characterized by unilateral or bilateral visual impairment without the presence of any organic cause. It occurs without the patient's conscious awareness. The disorder cannot be simply explained medically and is potentially challenging and perplexing clinically. The following report aims to explain the impact of psychological stress on vision and to understand how emotional repression can delay the resolution of symptoms.

**Methods**

Case report. A 30-year-old Malay man presented with sudden onset of bilateral painless loss of vision following a minor head injury. He fell backwards from a pickup truck with approximately 3 meters height while working. He sustained superficial laceration wounds over the occipital area of the scalp after his head hit the engine of the truck. He was otherwise well with no sign and symptom of any intracranial injury. Detail ocular examination affirmed that patient had no light perception in both eyes on visual acuity testing. However anterior and posterior segment ocular examination were unremarkable. Relative afferent pupillary defect was negative. Other systemic examination revealed no abnormalities and neurological examination was unremarkable. Computed tomography and magnetic resonance imaging of the brain displayed no significant abnormalities. Visual evoked potential and electroretinography were normal.

## Results

In view of inconclusive clinical examination and investigation proof for the cause of the persistent symptom, he was later referred for psychiatric evaluation. Mental status examination revealed persistent depressive symptoms with low self-esteem, feeling of anhedonia, hopelessness and worthlessness, feeling indecisive, having loss of energy, loss of appetite and insomnia. He had a frail stature and weighed only 46.8kg. His affect was restricted, and his speech was relevant and coherent with normal amount but low volume and rate. No psychomotor retardation or agitation documented. His cognitive functions were intact. A diagnosis of dysthymic disorder with conversion disorder was made. He was started on antidepressants, Fluoxetine 20mg daily and gradually increased to 40mg daily. Supportive psychotherapy, family interventions, psycho-education and modified cognitive behavioural therapy were prescribed to this patient. After a few psychiatric consultations and treatment, from complete bilateral blindness, the patient gradually recovered visual function. His visual acuity slowly improved from counting finger (CF) to 6/7.5 on both eyes.

## Conclusion

This report exemplified the importance of comprehensive assessment utilizing integrated team approach in dealing with a challenging case of non-organic vision loss. Beside pharmacotherapy, psychotherapy and psycho-education about the illness, addressing the psychosocial problems and acquiring skills on stress reducing strategies including relaxation will help in reducing patient's emotional symptoms and vision. Therefore, a multidisciplinary approach in functional vision loss should be reinstated early in therapy to avoid delay in management and clinical outcome.

**COSCAB183****RARE CASE OF PAEDIATRIC MULTIPLE MYELOMA PRESENTED WITH ORBITAL MASS**

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**Background**

Multiple myeloma (MM) is a malignancy characterized by abnormal plasma cell proliferation and is generally confined to the bone marrow. However, 3% of cases may develop extramedullary involvement including the eye.

**Methods**

A case report of a 12-year-old girl presenting with 5 days history of right eye (RE) supraorbital painless swelling associated with fever, back pain and fatiguability. Ocular examination right eye noted non axial proptosis about 1mm, fullness of right supraorbital area and restricted RE on abduction and elevation. Optic nerve function test was normal with vision 6/6 and other findings are normal. Blood investigation shows hypercalcemia and bicytopenia with marked Rouleaux formation suggestive of haematological malignancy. Skeletal survey noted multiple lytic lesions of the skull with pathological compression fracture at cervical and thoracic vertebra. Her MRI findings shows superolateral right extraconal mass with diffuse marrow infiltration of the skull vault, orbital wall, middle cranial fossa and upper cervical vertebra. Subsequently, she underwent incisional biopsy of right orbital mass via transcutaneous anterior orbitotomy was performed and about 1x1cm of soft to firm reddish intraorbital mass was sent for histopathological examination.

**Results**

HPE result of the orbital mass confirmed a plasma cell neoplasm, a diagnosis of extramedullary MM was established. The patient subsequently underwent

allogeneic stem cell transplant and 4 cycles of chemotherapy and upon completion, her supraorbital swelling resolved.

### **Conclusion**

MM in the paediatric population is rare, and such presentation as a supraorbital swelling requires a histopathological examination to confirm the diagnosis.

**COS CAB184****A UNIQUE PRESENTATION OF PAEDIATRIC ORBITAL CELLULITIS**

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**Background**

Orbital cellulitis is an infection involving the content of the orbit, whereas preseptal cellulitis is an infection of the anterior portion of the eyelid. We report a rare presentation of preseptal cellulitis that progressed into orbital cellulitis with intracranial involvement.

**Methods**

Case report. An 11-year-old boy presented with a five-day history of right lower lid swelling associated with yellowish discharge and fever for two days. Right eye (RE) examination revealed a right infected internal hordeolum over the lateral lower lid.

**Results**

He was treated as preseptal cellulitis and oral antibiotics were started on an outpatient basis. However, this patient returned the next day with headache, spiking temperature and poor oral intake. Shortly after he was admitted, he exhibited abnormal and aggressive behaviour in the ward. Computed tomography (CT) of the brain did not show any evidence of meningitis. Despite starting the patient on intravenous Amoxicillin-Clavulanate acid, he developed RE chemosis and restriction of extraocular movements. The face, ear and neck also were swollen. The diagnosis was revised to severe right orbital cellulitis with sepsis and intracranial involvement and the paediatric team escalated his treatment to intravenous Ceftriaxone and Metronidazole. CT brain, orbit and paranasal sinuses revealed right orbital cellulitis with no evidence of meningitis. Blood and eye discharge cultures grew *Staphylococcus aureus*. After a prolonged stay with intensive intravenous antibiotics, the patient made full recovery and was discharged home.

**Conclusion**

Identifying early signs of orbital cellulitis is critical to its appropriate management. High grade temperature should warrant suspicion of orbital cellulitis. Intracranial extension is a rare presentation in paediatric orbital cellulitis, but it should not be ruled out by negative neuroimaging results. Staphylococcus species is still the most common pathogen isolated in orbital cellulitis.

**COS CAB185****PROFILE OF DUANE RETRACTION SYNDROME**

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**Background**

Duane retraction syndrome (DRS) is a common form of congenital cranial dysinnervation disorder, with prevalence between 1% and 5% in strabismic patients. This study is done to explore the demographic and clinical profile of DRS among patients who attended the Ophthalmology clinic in Hospital Kuala Lumpur.

**Methods**

A retrospective cohort study of DRS at the Ophthalmology Clinic, HKL. The records of all patients with a DRS diagnosis were retrieved and analysed.

**Results**

A total of 42 DRS cases were identified. Of these, 28 (66.7%) were Malay, 5 (11.9%) were Chinese and 9 (21.4%) were Indian. 31 (73.8%) were male and 11 (26.2%) were female. 34 (81%) and 8 (19%) patients had unilateral and bilateral involvement, respectively. In both unilateral and bilateral cases, type I (26, 61.9%) was the most common subtype, followed by type III (15, 35.7%) and type II (1, 2.4%). No significant association was found between gender and DRS subtype,  $X^2(2, N = 42) = 0.364, p=0.834$ . There was no significant association between gender and laterality (unilateral or bilateral DRS),  $X^2(1, N = 42) = 0.007, p=0.932$ . There was significant relation between laterality of DRS and upshoot/downshoot,  $X^2(1, N = 42) = 3.953, p=0.047$ . Bilateral DRS was more likely than unilateral to have upshoot/downshoot. 12 (28.6%) DRS patients were found to be amblyopic, of those 2 (4.8%) anisometropic myopia, 2 (4.8%) anisometropic astigmatism, 2 (4.8%) isometropic myopia and 6 (14.3%) strabismic amblyopia.

**Conclusion**

Unilateral and bilateral DRS show considerable difference in upshoot/downshoot.

**COSCAB186****A CASE OF HYPHAEMA IN AN IDIOPATHIC UNILATERAL ANTERIOR UVEITIS**

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**Background**

Uveitis contributes about 25% of the legal blindness cases in the developing world. Of that, 60% of the cases are acute anterior uveitis (AAU). To date, very few cases have been reported in the literature regarding hyphaema associated with anterior uveitis. Here, we wanted to report a case of idiopathic anterior uveitis with hyphaema.

**Methods**

Case report. A 54-year-old Malay lady developed a layer of hyphaema and blood clots in the anterior chamber (AC) with significant AC cells and fibrin that was noticed during her first presentation for unilateral anterior uveitis at our centre. She initially had symptoms of unilateral anterior uveitis two weeks prior to her visit. There was no history of ocular trauma episodes, ocular surgery, anticoagulants medication and malignancies. General physical examination of the patient was unremarkable. She was later tested negative for syphilis, human immunodeficiency virus, tuberculosis and connective tissue disorders screening.

**Results**

She was diagnosed as having idiopathic AAU. She responded well to tapering doses of topical prednisolone and moxifloxacin with a complete resolution of symptoms and signs after six weeks of treatment. Her vision improved significantly from hand movement to 6/7.5 in the affected eye.

**Conclusion**

Hyphaema can develop in an idiopathic unilateral anterior uveitis, although such cases are rare. Prompt diagnosis and treatment can result in a complete resolution of signs and symptoms.

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A stylized graphic of an eye, rendered in shades of blue and white, positioned to the right of the journal title. The eye is composed of concentric, curved lines that suggest the iris and pupil.