

## **Prevalence Study of Pterygium Disease Influence By Environmental Factor Among Patients At Queen Elizabeth Hospital In 2012**

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**Objective:** The aim of this study is to identify the number of patients with pterygium in the Ophthalmology Unit at Hospital Queen Elizabeth; to investigate the prevalence of environmental factors for pterygium among patients and; to suggest some preventive measures to diminish the prevalence of pterygium.

**Methodology:** The sample consists of thirty patients with and without pterygium in the Ophthalmology Unit at Hospital Queen Elizabeth. A descriptive study design was utilized in this study. A structured selfadministered questionnaire was used for data collection. The questionnaire consists of two parts; demographic information of the participants; and questions about the prevalence factors of pterygium and its treatment. The raw data has been calculated, and subsequently tabulated and analyzed.

**Results:** Findings of this study show that majority of the respondent state that excessive exposure to environmental conditions is the main cause of pterygium. Extensive exposure to sunlight (43.3%) is the highest causes, followed by cigarette smoking (37%), dusty environments (13.3%) and wind exposure (13%).

**Conclusion:** This study suggests doctors to performed follow up for patients after surgery particularly if a recurrence is to be identified and the search for patients with pterygium in the remote rural areas that have not yet get treated.

### **Kota Belud Community Towards Cataract Free**

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**Introduction:** Cataract illness is the highest cause of blindness in Sabah according to the results of the study conducted by the National Eye Survey 2 (NES II) in 2014. In order to find solutions to the problem, the national ophthalmology services took the initiative by launching the KK1M programme (Klinik Katarak 1Malaysia). The program provides free services to people of all walks of life in the state of Sabah. In order to cater to the KK1M programme, a cataract finder team has been created to screen residents in rural areas.

**Objectives:** The main objective of the cataract finder team of Kota Belud hospital is to locate residents around Kota Belud that had cataract problems.

**Methodology:** Cataract finder team will conduct screening checks in designated villages according to the agreed schedule.

**Results:** In 2016, 17 villages were selected and 409 patients were screened and 16 were cataracts. In the year 2017, 38 villages have participated in the program and 635 people have been diagnosed. 40 people have been found to have cataracts, 37 pterygium, 117 refractive errors and 223 have other eye-related problems.

**Summary:** Overall, Kota Belud's cataract finder helped the rural 'community towards Cataract-free movement' by giving exposure to cataract problems and subsequently giving the cataract patients a new hope with restored vision after surgery. The Cataract finder team ensures KK1M programs in Sabah can be realized.

**Study On Clients' Satisfaction Influenced By Day Care Services In Ward Ophthalmology, Bukit Mertajam Hospital, Pulau Pinang In Year 2018.**

Kavitta A/P Devaraj

**Objective :** To study the clients' satisfaction influenced by day care services in Ophthalmology ward.

**Methods :** A non experimental, cross sectional study was conducted on clients' satisfaction in day care services in ward Ophthalmology. A self designed questionnaire with the respondents feedback from experience on day care services.

**Results :** Fifty patients were included in this study, who had a cataract operation as day care patient from February till March 2018. A seven dimensions of client's satisfaction on day care services are identified, namely services by medical staff, information given, ward infrastructure, waiting time perioperative and postoperative, admission and discharge time practiced by the medical staff in Ophthalmology ward. The main factors that associated with reduced rate of client's satisfaction are services by the medical staff, information given, waiting time perioperative and ward infrastructure.

**Conclusion :** Create a website full of day care services and education or extra curriculum activities in rural areas should be carried out. Standardize protocols and elimination of unnecessary paper works. Cooperation between the government and private health sector in introduce or launch new equipment, in giving a satisfaction services in hospital settings.

## **The Study of Knowledge and Awareness in Blindness Caused by Cataracts Among Patients in Ophthalmology's Department of Hospital Selayang**

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**Objective:** Cataracts are the leading cause of blindness in the world; it is an eye disease that can be prevented. The treatment for cataracts is through surgical procedure to remove the clouding lens and replaced it with an intraocular lens (IOL) that. Although it can be treated, it stills the main cause of blindness.

**Methodology:** A total of 30 respondents were randomly selected as sample of this study. Studies are conducted quantitatively and "Cross Sectional" by distributing survey forms.

**Results:** There were 15 people (50%) were diabetes mellitus, 9 (30%) high blood pressure and one individual had a history of heart disease (3.33%) and 5 (16.67%) had no medical problems. About 25 people (83.33%) had cataract knowledge and 5 (16.67%) did not know what cataract was. A total of 25 people (83.33%) knew that cataracts could cause blindness and 5 (16.67%) did not know it. 15 people (50%) chose an older person will have high risk in cataracts disease, 5 (16.67%) said that infants and children and 10 (33.33%) had chosen all. 20 people (66.67%) choose surgery as a treatment for cataracts, 2 (6.67%) choose medication, 4 (13.33%) laser, 3 (10%) choose no treatment and one (3.33%) not sure about it. 27 people (90%) knew that cataracts could be treated and 3 (10%) don't know. 27 people (90%) agreed cataract will attack 40 years and above, 3 (10%) disagree.

**Conclusion:** This 30 samples had good knowledge of cataracts disease. Educational programs to enhance public awareness may be needed to prevent the blindness especially in rural areas.

## **The Role of Paramedics in The Prevention of Blindness From Retinopathy of Prematurity**

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**Objective:** To report the role of paramedics in the prevention of blindness from ROP.

**Methodology:** Descriptive Cross Sectional Study

**Results:** From year 2015-2017, there were 705 new ROP cases seen in Hospital Wanita dan Kanak-Kanak Sabah. A total of 2312 ROP cases were screened. Among them, 39 patients (5.5%) needed laser therapy. 203 patients (9.0%) defaulted. These patients defaulted due to lack of knowledge (42.0%), financial problem (34.0%) and geographic limitation (24.0%). However, most of the patients came for follow up after being counseled, except for those unreachable,

**Conclusion:** Besides doctor, paramedics also play an important role in counselling caretakers to understand this disease. Paramedics ensure caretakers equally follow their scheduled appointments. Defaulters will be contacted and re-counseled. Patients with financial and geographical issues were referred to social welfare for transportation assistance. Even though Sabah has only one pediatric center, we still managed to prevent our ROP patients from going blind.

## **Emergency Surgery Post Ocular Trauma in A Northern Regional Hospital: An One Year Retrospective Review**

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Hospital Raja Permaisuri Bainun Ipoh, Ipoh

**Objective:** To study the socio-demographic and clinical characteristics of all ocular emergency operations after trauma in Hospital Raja Permaisuri Bainun.

**Methodology:** A retrospective study of all ocular emergency surgery post trauma done from May 2017 to May 2018 in Hospital Raja Permaisuri Bainun, Ipoh.

**Results:** There were total of 98 cases enrolled in this study with predominant Malay ethnicity (50.0%). Majority of subjects were male (83.7%) with predominant in adult working group from 20-59 year-old (58.2%). Surgical operation done mainly using general anesthesia (65.3%). Forty-seven percent involved right whereas 48% involved left eye and remaining 5% involved bilateral eyes. Ocular morbidity sustained were mainly eyelid laceration (17.3%), cornea-scleral laceration (16.3%), globe rupture (14.3%) and followed by cornea laceration only, conjunctival laceration only, examination under anesthesia for suspicious laceration cases and others. Eighty-eight percent of eyelid laceration not involving lid margin and 70% of corneal laceration were full thickness laceration

**Conclusion:** Majority of ocular trauma required surgery was in adult working group and have reduced vision post trauma. This would impair their quality of life and became dependence. Thus, awareness and safety precaution should be instilled to all working adult to reduce the incidence of ocular trauma.

**Kajian Menilai Tahap Kesedaran Tentang Kepentingan Ujian Saringan Mata Dalam Pencegahan Kebutaan Di-kalangan Pemandu KD Malaya Pangkalan TLDM Lumut**

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Jabatan Oftalmologi Hospital Raja Permaisuri Bainun, Ipoh

**Objective:** Objektif kajian ini adalah untuk mengkaji tahap kesedaran pemandu KD Malaya Pangkalan TLDM Lumut tentang pentingnya ujian saringan mata dalam pencegahan kebutaan.

**Methodology:** Reka bentuk ini adalah berbentuk keratan rentas. Kajian ini dilakukan di KD Malaya Pangkalan Lumut Tentera Laut Diraja Malaysia atau lebih dikenali dengan singkatannya TLDM dengan Memilih pemandu dari Pengkalan KD Malaya Lumut kajian ini. Seramai 30 orang responden terlibat dalam kajian ini.

**Results:** Kajian ini mendapat 100% respon. kajian yang dilakukan dapat melihat secara kasar tentang tahap pengetahuan segelintir pemandu unit KD Malaya Pangkalan TLDM Lumut yang merupakan kerjaya yang menggunakan penglihatan sebagai asas dalam kerjaya mereka namun keputusan menunjukkan kekerapan melakukan ujian saringan mata dalam setahun yang lepas seramai 7 orang atau 23.00%, bagi 2 hingga 5 tahun seramai 9 orang atau 30.00%, untuk 10 tahun yang lepas pula seramai 1 orang atau 3.00% manakala bagi pemandu yang tidak pernah melakukan ujian saringan mata pula seramai 13 orang atau 43.33%. Keputusan menunjukkan tahap kesedaran para pemandu tentang kepentingan ujian saringan mata adalah rendah. Semua responden iaitu 30 orang (100 %) berpendapat bahawa faktor “kesibukan berkerja” adalah salah satu punca kurang pendedahan mengenai kepentingan ujian saringan mata.

**Conclusion:** Cadangan yang disyorkan untuk penambahbaikan adalah memperluaskan lawatan “Eye Camp” dalam membuat saringan mata, melakukan “Public Talk”. Pendidikan kesihatan dari pihak kesihatan dengan penyebaran maklumat tentang kepentingan ujian saringan mata perlu diluaskan melalui verbal, media massa atau media cetak

## **Vitreoretinal Surgery in A Northern Regional Hospital: An One Year Retrospective Review**

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**Objective:** To highlight the indication and intraoperative complications of vitreoretinal operations in Hospital Raja Permaisuri Bainun, Ipoh.

**Methodology:** A retrospective study of all vitreoretinal surgeries done from January 2016 to December 2016 in Hospital Raja Permaisuri Bainun, Ipoh

**Results:** Three hundred and eighty six vitreoretinal operations were done in our hospital in one year duration. Advanced diabetic eye disease is the most common indication (36.4%) with predominant in male (65.5%). Other indication such as pseudophakic rhegmatogenous retinal detachment (16.6%), rhegmatogenous retinal detachment (5.7%) and macula hole repair (4.08%). Remaining 8.42% of operations done for post complicated cataract surgeries which need vitrectomy. Most common intraoperative complication is iatrogenic retinal tears (9.6%), lens touch of phakic eyes (1.8%) and iatrogenic retinal trauma (0.8%).

**Conclusion:** Advanced diabetic eye disease is the most common indication of vitreoretinal surgery. Therefore, optimization of systemic problems is imperative in order to eliminate avoidable blindness by the year 2020



## **To Assess The Pain Score In Patient Receiving Intravitreal Anti-VEGF**

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**Objective:** To study the pain score of patients receiving Intravitreal Anti-Vascular Endothelial Growth Factor (anti-VEGF) injection in Hospital Raja Permaisuri Bainun, Ipoh.

**Methodology:** A cross-sectional study was done using self-administered questionnaire for all patients' received intravitreal ranibizumab (Lucentis) in Hospital Raja Permaisuri Bainun from January to May 2018. The questionnaire was based on Numeric Self Rating Scale (NRS) and Verbal Categorical Rating Scale (VRS). Patients were divided into 3 groups for mild (score 1-3), moderate (score 4-6) and severe (score 7-10). Three components were emphasized mainly: gender, race and age. Results based on mean pain score achieved in each subgroup.

**Result:** A total of 206 participants completed the questionnaire. Gender subgroup showed to be predominantly males with 123 patients (59.7%). Most patients were between 61-80 years old subgroup (61.2%). Malays made up the majority of race with 90 patients (43.7%). Mean pain score was divided into category 1.29 (mild), 4.5 moderate), and 7.5 (severe). Indian race attained the highest pain score compared to Malays and Chinese with mean score 2.56, 2.00, and 1.58 respectively. This implies that the Indian race has the lowest pain tolerance in this study. As for the age group, there is no statistical significance recorded between the subgroups.

**Conclusion:** Pain from intravitreal anti-VEGF is acceptable. Limitation of this study is that were no single surgeon who performed all the injection procedures throughout the study period.

## **Ocular Challenges in Pregnancy**

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**Purpose:** To describe management challenge of cases of diabetic retinopathy in pregnancy.

**Methods:** Prospective case series.

**Results:** Two pregnant patients of Diabetic Mellitus have been reviewed. Mrs M, a 26 years old primigravida presented at 11 weeks of gestation with severe Non proliferative diabetic retinopathy. However after 2 weeks her vision worsened as she progressed to proliferative diabetic retinopathy with diabetic macula edema. Her vision dropped from 6/18 to HM in right eye and 6/18 to 6/36 in the left eye. Despite intensive laser panretinal photocoagulation and close monitoring, she developed vitreous hemorrhage with fibrovascular traction on the right eye at 30 weeks of gestation. Mrs H is 37 years old, nulliparous with pre gestational diabetic mellitus. She presented at 12 weeks of gestation with bilateral eyes severe Non proliferative diabetic retinopathy. She also has coexisting hypertension in pregnancy which was complicated with hypertensive retinopathy and serous retinal detachment at the fovea in both eyes. Her vision was 6/18 bilateral eyes but deteriorates to CF in right eye and 6/24 in the left eye two months later. She developed right eye inferior vitreous hemorrhage with tractional retinal detachment involving macula despite intensive panretinal photocoagulation. Vitrectomy was planned post partum for both cases as relentless progression of diabetic retinopathy despite intensive treatment and monitoring.

**Conclusions:** When the patient has diabetic vasculopathy, the obstetrician, maternal-fetal specialist, endocrinologist and other members of the health care team must perform challenging act that promotes fetal health while minimizing maternal risk. Some cases may need vitrectomy due to progressive diabetic retinopathy.

### **Case Series: Silent Occlusion of The Eyes**

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**Objective:** To describe presentation, diagnosis, management and outcome of three cases of central retinal artery occlusion (CRAO).

**Methodology:** Retrospective case series.

**Results:** Over the past 2 years, we had three cases of CRAO with similar presentations of unilateral sudden onset of painless blurring of vision. Case 1 and 2: Two gentlemen aged 73 and 46 years old with underlying hypertension and dyslipidemia, not on treatment presented with vision of counting finger. Anterior segment was normal. Fundus showed cherry red spot. Hyperventilation and ocular massage were performed immediately. Paracentesis done and intraocular pressure lowering agents were given. Fundus fluorescent angiogram (FFA) showed significant delayed in ophthalmic artery filling time. Their cholesterol level was slightly raised with normal echogram and carotid doppler. Their systemic conditions were optimized and were started with anticoagulant. Their vision only slightly improved to 1/60 due to the insult of the ischemic event. Case 3: A 26 years old, lady presented with perception to light vision on right eye. She was on contraceptive hormonal therapy. Anterior segment was normal. Fundus showed cherry red spot. She was managed with hyperventilation, ocular massage, paracentesis and antiglaucoma. Antithrombophilic screening and FFA were normal. Her vision improved to 6/9. She was counseled for other method of contraception.

**Conclusion:** We highlight that early presentation and prompt management are crucial in acute loss of vision from the occlusion in the retinal artery. Furthermore, optimization of systemic condition may help hasten the recovery. Anticoagulant therapy is advisable to protect the fellow eye and other organ from future attack.

## **The Cat Got My Eye**

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**Objective:** To report a case of Parinaud's Oculoglandular Syndrome

**Methodology:** Case report

**Results:** A 42 year old healthy lady presented with left eye redness for one week duration. It was associated with periorbital swelling and pain. She also complained of frontal headache and left periauricular swelling. There was no blurring of vision or recent history of trauma. Systemically, there was no history of fever, chronic cough, loss of appetite or loss of weight. Her family has stray cats at home. On examination, best corrected visual acuity was 6/6 over right eye and 6/12 over left eye. A granulomatous conjunctivitis of the left eye was noted. There was no anterior chamber inflammation, vitritis or retinochoroiditis. Systemic examination revealed a firm, well defined, non tender left periauricular lymph node. Investigations were sent for cat scratch, syphilis and tuberculosis. Serology sent for Bartonella Hensalae showed elevated IgG and IgM. Investigations were negative for tuberculosis and syphilis. She was subsequently treated with oral doxycycline for 6 weeks. Throughout the course of treatment, the conjunctival granuloma became flatter. The periauricular swelling had reduced markedly.

**Conclusion:** Parinaud's oculoglandular syndrome is an atypical form of Cat scratch disease. A high index of suspicion is needed to make a diagnosis and subsequently institute treatment

## **Price Paid To Be Pretty**

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**Objective:** This article describes an incidental finding of fine small needles in the orbital cavity and chest of a patient who was presented asymptotically of eyes or lungs complains

**Methodology:** A 51-year-old Kadazan lady with known case of schizophrenia was found by family members lying in the toilet at home. Prior to fall, patient complained of dizziness and body weakness for 3 days. CT Brain revealed no infarction or intracranial bleed, but presence of one linear radio-opaque structure 'suspected needles' at the floor of left orbit. Globe was intact. Chest radiographs shows multiple fine small needles in the subcutaneous chest wall

**Results:** These needles, believed to be charm needles or 'susuks' in Malay language, are inserted in soft tissues of the body as talisman to enhance or preserve the wearer's beauty and health. These needles are not visible externally and most 'susuk' wearers are secretive about their hidden talisman. These needles do not cause pain or swelling and are unnecessary to be removed unless they lead to infection or interfere with radiography procedures.<sup>1,2</sup> The common sites of insertion reported are the cranio-oro-facial, chest, abdomen, breast, spine and limbs.<sup>3,4</sup> Till today, no reports of any complications from charm needles were published, however possibility of these needles causing infections, penetrating vessels or dislodgement into vital organs should not be ignored. <sup>4,5</sup>

**Conclusion:** Data on needles in the orbital cavity are scant. More understanding regarding this practice and awareness of its existence is important to help clinician evidently diagnose and avoid mismanagement in these patients

### **Conjunctival Salmon Patch Lesion: Lymphoma or Something Else?**

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**Objective:** This report describes a case of conjunctival juvenile xanthogranuloma (JXG) mimicking lymphoma.

**Methodology:** Case Report

**Results:** A 10 - month - old Malay boy presented with salmon patch like lesion on the superomedial aspect of the conjunctiva of the right eye gradually increasing in size for past 3 months. Physical examination revealed an elevated smooth surface subconjunctival mass, measuring 14 x 8 mm, attached to the limbus from 12 – 3 o'clock. Other ocular examination was normal. There were no skin lesion and systemic workup is noncontributory. Initially patient was suspected of having lymphoma. However MRI showed superficial soft tissue of right eye with no evidence of local infiltration to surrounding structures. Excisional biopsy done, grossly macroscopic examination showed yellowish lesion tightly adherent to underlying sclera and adjacent recti muscles. Histopathological examination showed the tissue is composed of lesional cells arranged in diffuse cellular sheets, display round to oval vesicular nuclei, some have cleaved nuclei, conspicuous nucleoli and ample amount of eosinophilic cytoplasm with mild to moderate infiltrates of lymphocytes, foamy macrophages and eosinophils. No obvious touton giant cells, mitotic figure, necrosis or atypical cells were observed. Immunohistochemistry examination showed that cells are positive for CD68 and negative for CD1a, Langerin and S100 protein. The morphology and immunochemistry were consistent with the diagnosis of JXG. The patient was treated with a topical steroid. Follow up examinations showed regression of the lesion.

**Conclusion:** JXG may present atypically in children. Histological and immunochemistry examinations are important to confirm the diagnosis

### **Spontaneous Corneal Perforation in Adolescent Girl**

Baskar Panirsheeluam, Sangeetha Tharmathurai, Rohana binti Zulkifli  
Hospital Sultan Haji Ahmad Shah, Temerloh

**Objective:** To report a case of spontaneous corneal perforation in adolescent girl

**Methodology:** Case report

**Results:** A 16 year old girl with underlying allergic conjunctivitis since the age of 8, presented with history of left eye itchiness associated with eye rubbing and subsequently suffered poor vision for 1 day duration. She previously defaulted her follow-up after 9 years old. She admits to eye itchiness when she plays with her domestic pets at home. She had no history of ocular trauma. Systemically, no fever was reported. Her visual acuity at presentation were 6/6 on right eye and hand movement on left eye (affected eye). Both eyes had no relative afferent pupillary defect. Both lids had no papillae. Left eye conjunctiva was injected with cornea having 2 areas of thinning and desmetocoele with central area of perforation measuring less than 1mm by 1mm. She had iris plugging at wound with shallow anterior chamber. Right eye examination was unremarkable. Corneal gluing was performed. She underwent Penetrating Keratoplasty after 5 days of presentation at Hospital Sungai Buloh. Investigations taken during admission also ruled out connective tissue disease. Post operative vision improved to 3/60 on her affected eye.

**Conclusion:** Ocular surface disease in young is should be treated and managed early. Compliance to follow-up should be instilled to parents with children of such condition. Early treatment and compliance to it may be sight saving

### **When Contact Lens Is Easily Available**

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**Objective:** To report 3 cases of contact lens related corneal ulcer which purchased from unauthorized dealers

**Methodology:** Case series

**Results:** This is a retrospective study on corneal ulcer as the sequelae of wearing contact lens purchased from unauthorized dealers seen in Hospital Bukit Mertajam between February till March 2018. All three patients were young ladies aged between 17 to 20 years old. The patients presented with acute painful red eyes with blurring of vision after using contact lens that they had purchased online without prescription from qualified personnel. All patients used coloured contact lens for both optical and cosmetic purposes. They were unsure of the contact lens manufacturers' details, expiry dates, proper contact lens care and handling method. Two patients were using monthly disposable contact lens while one patient used 3-monthly disposable contact lens. Two out of three patients had history of prolonged hours of contact lens usage. Initial visual acuity on presentation were 6/24, 6/12 and 6/9 respectively. All patients were treated in-patient with broad spectrum intensive topical antibiotics consist of fortified ceftazidime 5% and fortified gentamicin 0.9% around the clock. Only one corneal scrapping yield pseudomonas aeruginosa while the remaining reported as no growth. All three patients responded to the treatment and recovered without significant visual impairment. Best corrected visual acuity after recovery were 6/9, 6/9 and 6/5 respectively with minimal residual corneal scar.

**Conclusion:** Public should be emphasized on sagacious contact lens purchase and care to avoid potential visual threatening complications



### **A Rare Case of Spontaneous Hyphema in Anterior Uveitis**

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**Objective:** To report a case of spontaneous hyphema in anterior uveitis

**Methodology:** Case report

**Results:** A 50 year old malay gentleman with no co morbid presented with left eye pain and redness associated with gradual onset of blurring of vision for three days. No history of ocular trauma and surgery. Patient has no history of taking NSAIDS or anticoagulant. Right eye vision was 6/9 and left eye was Hand movement. Examination showed, left eye injected conjunctiva, hazy cornea with cells 4+ and flare 2+ and grade one hyphema. Intraocular pressure was normal. There was no relative afferent pupillary defect and rubeosis iridis. No fundus view as cornea was hazy. B scan showed retina flat and no vitreous opacity. During his second review, the cornea becomes clear, no hyphema and presence of posterior synechiae. Right eye was normal. Investigation revealed, VDRL and HIV test positive with CD4 count was 471. Patient was treated with topical steroid, vigamox, atropine and was co- managed with medical team for management of VDRL and HIV. Subsequent follow up noted patient vision was improving.

**Conclusion:** The association of hyphema with anterior uveitis is distinctly rare. Few unusual cases have been reported but only in these certain entities of anterior uveitis: Reiter's syndrome, juvenile chronic arthritis, ankylosing spondylitis, herpes simplex and idiopathic anterior uveitis. In conclusion, it will be a case worth reporting for a rare encounter of spontaneous hyphaema in a HIV and VDRL positive patient with anterior uveitis.

## **Leber's Hereditary Optic Neuropathy: A Case Report**

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**Objective:** Leber's hereditary optic neuropathy(LHON) is a maternally inherited mitochondrial disease caused by several point mutations in mitochondrial DNA.

**Methodology:** A healthy 12-year-old Chinese boy presented with bilateral eye painless, subacute loss of central vision (left>right) for 1week duration. Right eye vision refracted at 6/24 and left 6/36. There was no relative afferent pupillary defect. Anterior segments unremarkable with normal intraocular pressure. Bilateral fundus were initially unremarkable. A week later, patient's vision deteriorated with fundus showing hyperemic discs with blurred margins and a single peripapillary blot hemorrhage on left eye. Patient also exhibited impaired colour perception.

No abnormalities detected on magnetic resonance imaging of brain and orbit. Serial Humphrey visual field tests initially showed centrocaecal scotoma which progressively worsened. All cerebrospinal fluid samples and blood investigations sent showed normal results. A trial of steroid therapy was commenced with not much improvement in patient's vision. Blood sample was then sent for LHON genetic testing and mitochondrial DNA(mtDNA) G11778A pathogenic mutation was detected. The same mutation was also present in patient's mother. Child is currently legally blind.

**Results:** Optic neuropathy can be caused by demyelination, infection/inflammation, ischemia, infiltration, compression, hereditary and toxic/nutritional causes. The mode of onset of visual loss is an important clue to the etiology. Early diagnosis and treatment not only improves the visual prognosis but also the neurological prognosis.

**Conclusion:** Eyecare providers should suspect hereditary optic neuropathy in children who exhibit discrepancies between pupillary reflex and other optic nerve functions. A detailed family history is important in diagnosing hereditary optic neuropathies.

## **Intrastromal Anti-fungal Injection As A Successful Modality of Treatment For Fungal Keratitis**

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Department of Ophthalmology, Hospital Segamat

**Objective:** To report 5 cases of fungal keratitis of various severity being successfully treated with intrastromal antifungal injection.

**Method:** A retrospective study of case series

**Case Report:** Fungal keratitis is a dreaded occurrence in the cornea and anterior segment given the difficulty in treating the disease. Hereby reporting 5 cases of fungal keratitis caused by *Aspergillus versicolor*, *Aspergillus fumigatus*, *Phialophora* sp, and *Fusarium* sp. The fungal keratitis stromal abscess sizes range from largest of 3mm x 2 mm to smallest of 1mm x 1mm, mostly located paracentral and one case was noted to have hypopyon measuring about 1 mm. On the first week of treatment, patient noted to exhibit slow response to topical antifungal. Hence, intrastromal amphotericin B injection 5mcg/0.1ml about 0.1ml administered into the affected eye ranging from once to 3 times in all patients except for one patient; who is post-operative 1 year penetrating keratoplasty infected with *Phialophora* keratitis is given intrastromal amphotericin B injection 5mcg/0.1ml about 0.1ml for 3 times and intrastromal voriconazole injection 50mcg/0.1ml about 0.1ml for 3 times. Within next four weeks, all the 5 cases of fungal keratitis became completely quiet with healed epithelial defect and corneal scarring. Intrastromal injection of antifungal is a safe and effective treatment option for recalcitrant fungal infections.

**Conclusion:** In summary, the intrastromal antifungal injection can constitute a good modality for the treatment of recalcitrant cases of fungal keratitis, revealing highly potent antifungal effects as the medication is administered directly to the site of keratitis, promises shorter recovery period, and early intrastromal antifungal injection also leads to quicker healing with good vision prognosis.

## CNS Leukemia – Leukemic Optic Nerve Infiltration

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**Objective:** To report cases of five leukemic patients who had leukemic infiltration of the optic nerve.

**Methodology:** Case series

**Results:** We studied five leukemic patients among which three had acute lymphoblastic leukemia, one with acute myelogenous leukemia and another with chronic myelogenous leukemia. Among these are 3 male patients ranging from age 12 to 22 and 2 female patients aged 50years old. Two of the patients had ocular complaints during course of the disease whereas for others, leukemia was only diagnosed after the ocular manifestation. All these patients had leukemic optic nerve infiltration however only 3 patients had visual impairment. Cranial nerve palsy was seen in 3 of the patients. Radiographic evidence suggesting possible leukemic infiltration of ocular structures were seen in 3 of the cases. 1 of the patients died due to intracranial bleeding. Other 4 patients underwent chemotherapy.

**Conclusion:** Ocular involvement in leukemia can be divided into primary which occur due to direct leukemic infiltration of ocular tissues or secondary due to systemic leukemic changes. Ophthalmic manifestations of central nervous system involvement in leukemia are optic nerve infiltration, cranial nerve palsies and papilledema. Studies have proven that CNS involvement in leukemia has a poorer prognosis, and intrathecal chemotherapy has a role for CNS prophylaxis. Referral to ophthalmologist and detailed ocular assessment is essential in patients with hematological malignancies to detect any ocular involvement.

### **Left Congenital Dacryoceles**

Wan Jamilah Binti Wan Ismail, Izyani Binti Hussin, Ng Seok Hui, Fhun Lai Chan  
Hospital Tuanku Fauziah, Kangar Perlis

**Objective:** To report a case of congenital dacryoceles

**Methodology:** Case Report

**Results:** Day 2 of life girl presented with bluish swelling over left medial canthus and noisy breathing since birth. However, patient clinically stable and not tachypneic. It was non pulsatile, non tender and no erythematous. Upon pressure over mass, noted clear fluid came out from nostril and was referred to ENT team for nasal scope to rule out airway obstruction by the mass. Right nasal cavity was narrow and scope unable to pass through it. Polypoidal mass behind inferior turbinate was seen in left nasal cavity and suspicious of cerebral spinal fluid in nasal cavity. Therefore CT brain, orbit and paranasal sinuses was proceed. CT scan showed left dacryoceles and no evidence of meningoencephalocele. Thus patient was managed conservatively and watches out for signs of respiratory obstruction.

**Conclusion:** These cases highlight the importance of imaging in doubtful case of medial canthal swelling and rhinorrhea to differentiate with encephalocele.

## **VKH A Diagnosis Dilemma & Successful Management in A Child**

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Department of Paediatric Ophthalmology, Hospital Wanita & Kanak-Kanak Sabah, Kota Kinabalu, Sabah

**Objective:** A case of VKH, its diagnosis and successful management of complications sequelae

**Methodology:** Case report

**Background:** A 7-year-old girl presented with bilateral eye redness associated with pain and photophobia for one month. Upon examination, bilateral eyes visual acuity was 6/15. There was non-granulomatous keratic precipitates, severe anterior chamber reactions and posterior synechiae. Bilateral fundus view was hazy with optic disc hyperaemia. Systemic examination was unremarkable. She was initially treated as bilateral anterior uveitis after excluding possible infective and immunological causes. Subsequently, bilateral surgical peripheral iridectomy was done due to secondary glaucoma. Six weeks after initial presentation, she developed alopecia and poliosis. In view of this, she was treated as VKH syndrome and was started on systemic corticosteroids with mycophenolate mofetil therapy. However, two years later she developed bilateral uveitic cataract with visual acuity over the right eye was 6/60 and left eye was 6/24. She underwent right eye synechiolysis, lens aspiration with IOL implantation. Prophylactic topical and systemic corticosteroids was started and tapered off slowly postoperatively. Patient's visual acuity improved to 6/7.5 over the right eye. Currently, she is awaiting left eye cataract operation.

**Conclusion:** VKH is uncommon in children and difficult to diagnose. A high index of suspicion and thorough systemic examination is essential in diagnosing this disease. Successful management depends on good control of inflammation and proper planning.

## **Cornea toxicity caused by crown flower**

Loh Sze Lian, Chen Chui Yain, Ng Sok Lin,  
Hospital Taiping, Taiping, Perak

**Objective:** To report a rare case of ocular toxicity induced by Calotropis latex.

**Methodology:** Case report.

**Results:** Calotropis Gigantea, which is also known as crown flower has religious significance to the Hindu community. We report a case of cornea toxicity caused by this plant. A 66-year-old Indian gentleman with no known comorbid presented with left eye painless blurring of vision two hours after latex of Calotropis leave entered his eye accidentally during gardening. He planted the flower for praying purposes. Examination showed left eye vision was 6/15, PH 6/12. pH was 7. The conjunctival was injected with severe cornea edema and Descemet's folds. Left eye intraocular pressure was 12mmHg. There was no keratic precipitate and anterior chamber showed no cells or flare. Fundus examination was normal. His right eye findings were normal. Patient was treated with topical antibiotic and steroid. Patient responded to treatment and cornea edema resolved completely after one week. Vision improved to 6/6 in the affected eye.

**Conclusion:** Ocular toxicity caused by latex of Calotropis is preventable by raising awareness and taking preventive measures

## **Management of Peripheral Ulcerative Keratitis (Puk): A Learning Experience in Sarawak General Hospital (SGH)**

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Ophthalmology Department, Sarawak General Hospital , Kuching, Sarawak

**Objective:** To study the cases of PUK in SGH and the different management methods available

**Methodology:** An observational, retrospective case study of patients with PUK in SGH from January 2014 to April 2018

**Results:** A total of 9 patients with PUK; 5 Chinese, 3 Malay and 1 Iban patient attending the cornea clinic were studied. Five female and four male patients with age at presentation ranging 22 to 74 were included in this study. Four patients had unilateral disease with a mean age of 52.5 and 5 had bilateral manifestation with a mean age of 45.4 at first encounter. The initial visual acuity was 6/24 or worse, and the clinical presentation of our patients were parallel to other reports. Treatment modalities include immunosuppressives and immunomodulators, in addition to surgical intervention. Two patients were started on steroids, five required combination of steroids and immunomodulators and one required two immunomodulating agents to halt progression of the disease. Two patients had reactivation during the course of treatment and four cases were complicated with perforated cornea, requiring keratoplasty. Post keratoplasty, patients developed graft rejection, graft infiltrate, secondary glaucoma and corneal scarring.

**Conclusion:** The first line treatment in PUK is an immunosuppressive regimen tailor made based on disease severity, due to its aggressive nature and rapid progression. This improves disease control and visual prognosis in patients. However, the treatment itself may result in complications such as graft rejection, graft infiltrate or steroid induced glaucoma as evident from this report.



## **“Better Late Than Never”. Treating Young Neovascular Glaucoma with Devastating Visual Outcome**

Kuhapriya Selvarajah, Chee Shew Fei, Loo Wan Wei, Chong Mei Fong  
Hospital Raja Pemaissuri Bainun Ipoh, Perak

**Objective:** Neovascular Glaucoma (NVG) is a severely blinding, intractable disease. Priority should be to prevent its development by appropriate management of the causative disease. Patient factor plays an important role in prevention of progression of the disease. We aim to report a case of both eye mild non-proliferative diabetic retinopathy (NPDR) which progressed to right eye NVG and left eye proliferative diabetic retinopathy (PDR) complicated with Evan’s syndrome in a young patient which could have been prevented with vision preserved.

**Methodology:** Case Report

**Results:** 49 years old with poorly controlled Diabetes Mellitus (DM), Evan’s syndrome, history of Bell’s palsy and cerebrovascular accident first presented 4 years ago with both eyes mild NPDR with vision 6/9. However, throughout the years she defaulted follow-up repeatedly due to personal problem, her ocular condition deteriorated relentlessly, ending up with absolute NVG with no perception to light in one eye and PDR with diabetic macular edema (DME) superimposed with central retinal vein occlusion (hand-movement) in the fellow eye. Due to her underlying Evan’s syndrome with low haemoglobin and platelet count (single digit) and developing chronic kidney disease, management was limited. Her condition was co-managed with medical team and upon optimization, we were able to proceed with intra-vitreous anti vascular endothelial growth factor (Anti VEGF) and pan retinal photo coagulation for the precious eye.

**Conclusion:** There were multiple dilemmas and challenges faced during management of NVG with Evan’s syndrome. Thus regular eye assessments are important for early recognition and therapeutic intervention in providing best possible long term visual outcome.

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### **The White Blood Prince**

Aini Zahidah Ismail, Wong Chi Lun  
Hospital Kulim, Kulim, Kedah

**Objective:** To report a case of lipaemia retinalis - an unusual retinal manifestation of hyperlipidemia.

**Methodology:** Case report.

**Results:** A 36-days of life boy, admitted to paediatric ward for acute gastroenteritis was found to have abnormally-colored blood (pinkish) during a blood taking procedure.

He was subsequently referred to ophthalmology department for further eye assessment. On examination, his iris appears atrophic and grayish in colour. No cataract seen. Fundus findings showed the characteristic whitish vessels which were slightly dilated and poor retinal reflex. Vitreous was clear with normal optic disc size but pale in colour.

He has elevated cholesterol level of 37.80 mmol/L, triglycerides of 17.81mmol/L and HDL of 10.10mmol/L. Other systemic examinations were normal. Echocardiogram and ultrasound abdomen found no abnormality as well.

He was diagnosed as primary chylomicronemia, and was started on special formula milk.

A month post dietary management, pathological changes of the patient's retina; which connected with lipemia retinalis, disappeared completely.

**Conclusion:** Lipemia retinalis is a rare condition characterized by creamy white coloured retinal blood vessels in patients with hypertriglyceridemia. Causes of lipid metabolism disorders such as familial genetic inheritance need to be investigated especially in newborn case.

## **Conjunctival Squamous Cell Carcinoma: A Case of Anti-Retroviral Resistance**

Mohd Syafiq Azman, Nur Najwa Suhaifi, Shawarinin Jusoh, Akmal Haliza Zamli  
Hospital Tengku Ampuan Afzan/HUKM

**Objective:** To describe a case of conjunctival squamous cell carcinoma in HIV patient on anti- retroviral treatment

**Methodology:** Case report

**Result:** Ocular surface squamous neoplasia is a term that describes neoplastic changes of the cornea and conjunctiva ranging from squamous dysplasia to invasive squamous cell carcinoma (SCC). The disease is more common in elderly and male patients, but may develop at a younger age, especially in association with xeroderma pigmentosum or immunodeficiency. This malignant tumor sometimes can be the first clinical manifestation of AIDS or appears in patient under anti-retroviral drugs developing resistance to treatment. We report a case of 39-year-old man with underlying HIV who has been on anti-retroviral therapy for 13 years. He presented with a left eye conjunctival mass which progressively enlarge for the past 6 months associated with reduced vision and glaring. Ocular examination revealed elevated, whitish gelatinous growth at the interpalpebral area of temporal bulbar conjunctiva extending 6mm into the limbus and cornea. There was no lymphadenopathy and other systemic examination was unremarkable. The mass was excised and histopathological examination confirmed as invasive squamous cell carcinoma. He was subsequently started on 5-fluorouracil 1% 6 hourly 3 cycle in 6 weeks and his antiretroviral regimen was readjusted.

**Conclusion:** The SCC of the conjunctiva is an opportunistic condition in HIV/AIDS and it could be a signal for resistance to anti-retroviral treatment.

## **Idiopathic Orbital Inflammatory Disease**

Aini Zahidah, M. Zulhilmi Akmal, Wong Chi Lun  
Hospital Kulim, Kulim, Kedah

**Objective:** To report 2 cases of idiopathic orbital inflammatory disease in Hospital Kulim.

**Methodology:** Case reports.

**Results:** We encountered 2 cases; the first patient was a 48 years old gentleman with no previous illness, and the second was a 51 years old lady with history of thyroidectomy. Both shared same ethnicity.

Both patients complaint of protuding red eye, with one experienced bilaterally but at onset of one year apart;while the other only experienced unilateral,with onset only in few days. Both denied any trauma or fever prior to event.

Visual acuity reduced but no RAPD seen in both patients. They presented with similar signs of swollen erythematous eyelids with injected and chemosed conjunctiva. Intraocular pressures of both cases were elevated, with restricted ocular movement in one of the cases. We also noticed choroidal folds with thickened sclera in one of the case, but normal fundus in the other.

Our initial diagnosis was to rule out thyroid eye disease, however thyroid level were normal. Infectious causes were ruled out as well. CT imaging was performed to exclude other vascular causes of proptosis. Both patients were started on systemic steroid and shown good response.

**Conclusion:** In these case reports, we concluded that idiopathic orbital inflammatory disease can mimics thyroid eye disease. Diagnosing IOID is challenging, as need to exclude many causes of proptosis. CT imaging and blood investigations are helpful. Biopsy of orbital diseases remain challenging, and is not without complication.

## **Pediatric Orbital Myositis Complicating Sinusitis**

Deivanai Subbiah, Nazrah Ramli

Ophthalmology Department, Hospital Selayang, Batu Caves, Selangor

**Objective:** To report a case of orbital myositis in a child as a complication of sinusitis.

**Methodology:** Case Report

**Results:** An 11 year old girl presented to casualty clinic complaining of progressively swollen right eye (RE) accompanied with pain on eye movement. Examination revealed right eye visual acuity of 20/25, no RAPD and other optic nerve function tests were normal. There was non-axial proptosis of the RE with significant limitation of adduction and elevation. Fundus examination was normal. Patient had low grade fever but other systemic review was unremarkable. Full blood count showed raised total white cells with predominant neutrophils and thrombocytosis. The diagnosis of orbital cellulitis secondary to sinusitis was made. She was admitted and empirically started on IV Ceftriaxone. Computed Tomography scan showed nasal bulky inferior rectus and medial rectus with mucosal thickening in both maxillary sinuses with calcification in the right maxillary sinus and enhancement seen in the right maxillary. As well as mucosal thickening of ethmoid, sphenoid and frontal sinuses. The diagnosis was revised to orbital myositis with sinusitis. Subsequently, patient was referred to our ENT colleague. IV Metronidazole was added. Both intravenous antibiotics were continued for 14 days as there was dramatic improvement in the patient's symptoms.

**Conclusion:** Orbital myositis might be associated with sinusitis. It is important to identify the diagnosis and administer appropriate treatment.

## **Bee Sting Keratopathy**

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Klinik Mata, Hospital Teluk Intan, Teluk Intan, Perak

**Objective:** To report a case of bee sting keratopathy without sting removal.

**Methodology:** A case report.

**Results:** A 45-years-old gentleman sustained an insect sting into the right eye while riding motorcycle. Immediately post injury he had reduced vision and eye redness. He presented to us after 23 hours of injury, finding of right eye vision 6/24, stromal abscess and retained sting. The sting was deeply embedded at 5 o'clock position paracentral of cornea with the tip at endothelium (half was removed and half remained in situ). The cornea was severely oedematous with generalized endothelial striae. There was cell 2+ in anterior chamber with <1 mm level of hypopyon. The fundus could not be visualize, ultrasound B-scan was normal. He received intensive topical Amphotericin-B 0.25%, Fluconazole 0.2%, Fort Gentamycin 0.9% and Fortum 5%. Patient was admitted for 1 week and subsequently co-managed with cornea team Hospital Sungai Buloh. Topical steroid q.i.d was added and response observed. His right eye improved clinically with vision of 6/18 and sting left in situ. Medication was gradually tapered.

**Conclusion:** Early commencement of topical steroid is recommended to reduce intraocular complication but caution and monitoring is highly required. Early sting removal also suggested for better visual outcome.

### **Case Series of Ocular Sporotrichosis: A Challenge in Diagnosis**

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Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan

**Objective:** Sporotrichosis is a rare mycosis of ocular adnexa. We describe the various clinical manifestations of sporotrichosis in ocular adnexa and to emphasize the challenges leading to diagnosis.

**Methodology:** Case series of three patients with ocular sporotrichosis that were successfully treated with antifungal treatment in Ophthalmology Clinic, Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan, Malaysia.

**Results:** A 61-year-old gentleman presented with one week history of conjunctival chemosis, serous-purulent discharge, and associated with swelling of the eyelid. He was diagnosed as pseudomembranous bacterial conjunctivitis with preseptal cellulitis and conjunctival abscess. He was treated with topical antibiotic but not responding. The other two patients were from younger age group between 18 to 24 years old presented with similar findings of granulomatous lesion at palpebral conjunctiva within one week duration. Both of them had history of contact with infected cats. Tissue biopsies were obtained from the lesions of these three patients which showed a positive result for *Sporothrix schenckii*. They were diagnosed as ocular sporotrichosis and successfully treated with oral itraconazole 200 mg BD for six months. Only one patient developed symblepharon after completed treatment.

**Conclusion:** Granulomatous lesion in ocular adnexa and exposure to cats should generate high index of suspicion to establish the diagnosis of sporotrichosis.

### **A Rare Case of Ligneous Conjunctivitis**

Liew Yee Chian, Vanitha Ratnalingam, Shamala Retnasabapathy  
Hospital Sungai Buloh, Sungai Buloh, Selangor

**Objective:** To present a rare case of ligneous conjunctivitis

**Methodology:** Case report

**Results:** A six year old boy complained of bilateral eye redness and discharge for 3 years duration. Prior to presentation, the patient had seen a number of general practitioners and ophthalmologists and had been treated with both topical antibiotics and steroids. On examination, his visual acuity was 6/18 for right eye and 6/36 for left eye. The palpebral conjunctiva in both eyes was inflamed and thickened with presence of pseudomembranes. Examination of the cornea showed punctate epithelial erosions. However, the anterior chamber and fundi were normal. He was initially prescribed with gutt fluorometholone and gutt moxifloxacin along with preservative free artificial tears. However, as there was no improvement, a biopsy of the thickened conjunctiva was taken for histopathological examination. The results were consistent with ligneous conjunctivitis. As ligneous conjunctivitis is often associated with plasminogen deficiency, the patient was referred to the paediatrics department for further laboratory examination and transfusion of fresh frozen plasma (FFP).

**Conclusion:** Ligneous conjunctivitis is a rare form of chronic and recurrent conjunctivitis. This case illustrates the clinical presentation including signs and symptoms and the need for awareness among ophthalmologists.



### **Gonorrhea Keratoconjunctivitis – A Cause of Perforated Cornea**

Farhana Ibrahim, Liew On Heong, Rohanah Alias, Rosilah Mohamed  
Hospital Kuala Lumpur, Kuala Lumpur

**Objective:** To report a rare case of perforated cornea secondary to gonorrhea keratoconjunctivitis.

**Methodology:** Case report

**Results:** A 42-year old Chinese man with no underlying medical illness presented with complain of bilateral eye redness and purulent eye discharge for one week duration. It was associated with right eye blurring of vision. He also suffering from dysuria with same duration. Patient is not married and he denied history of sexual promiscuity or any other high risk behavior. On examination his visual acuity were perception to light (PL) on the right with left eye vision of 6/12. Both eyes had purulent discharge. The right eye had a severe chemosis with melting cornea from limbal to limbal. The anterior chamber was flat. The left eye was chemotic with normal cornea. The posterior segment of the left eye was unremarkable. Systemic examination showed oral ulcer and purulent discharge over the genitalia region. There was no enlarged lymph node. Gram stained from the genitalia discharge showed gram negative diplococci bacteria. Patient was started with systemic intravenous ceftriaxone for 1 week duration together with oral doxycycline. Tectonic penetrating keratoplasty was performed for the right eye.

**Conclusion:** Gonococcal keratoconjunctivitis is an emergency which requiring aggressive management. Without proper treatment, it can evolve and lead to fulminant cornea perforation and blindness.

## **In vivo Corneal Confocal Microscopy Aided Diagnosis of Acanthamoeba Keratitis In A Non-Responding Corneal Ulcer**

Fadzilah Hanim Rahim, Ahmad Nurfahmi Akhtar Ali, Aminul Hakim Sofian Sauri, Khairidzan Mohd Kamal  
IIUM Medical Centre, Kuantan, Pahang

**Objective:** To report a case of acanthamoeba keratitis in a non-responding corneal ulcer diagnosed by corneal confocal microscopy.

**Methodology:** Case report

**Results:** An 18 year old healthy gentleman was referred to our cornea clinic in IIUM Medical Centre for a nonresponding herpetic stromal keratitis with ulcer in the left eye. The impression was the ulcer showed superimposed immune reaction (Wessely ring) and pseudomonas infection was considered in the referral notation. On examination, the left eye was injected with visual acuity of Hand movement. There was a ring-like translucent greyish keratitis measuring 4mm x 3mm at the central and extending to paracentral nasally. The keratitis penetrated into mid-stromal of the cornea with surrounding pan-stromal edema and overlying epithelial defect. There was no keratic precipitate or hypopyon seen. In vivo laser scanning corneal confocal microscopy (HRT3-RCM, Heidelberg) of the left eye lesion revealed numerous cysts at 28-225 microns, with surrounding radial keratoneuritis. Diagnosis of Acanthamoeba keratitis was made and trial on a single agent treatment; chlorhexidine 0.02% drops was intensively commenced. Within 72 hours it had showed positive response and the keratitis has healed at week four of his visit.

**Conclusion:** Corneal confocal microscopy is an important diagnostic aid in differentiating Acanthameoba keratitis especially in the absence or delay of lab modalities.

## **An Unusual Case of Bilateral Eye Neuroretinitis**

P.S. Siow, HL Cheng, PL Tang, Yushaniza Y  
Hospital Seri Manjung, Perak

**Objective:** To report a rare case of neuroretinitis

**Methodology:** case report

**Results:** A 17 year old Malay lady with no known medical illness presented with left eye spontaneous painless and sudden onset temporal visual field lost for 5 days duration. Otherwise, there were no eye redness and no photophobia. Patient has numerous cats at home; however there was no tuberculosis contact and no high risk behavior. On examination, bilateral eye vision was 6/6, no relative afferent papillary defect, intraocular pressure was 12mmHg with an unremarkable anterior segment finding. Left eye optic nerve functions were diminished i.e. light brightness and red desaturation. Upon examination of the fundus, optic disc swelling was seen in bilateral eyes, which was more prominent over the left eye. There was also macular star over the left eye. Choroiditis as well as retinitis were also observed bilaterally. Treatment of doxycycline was commenced and patient was followed up accordingly.

**Conclusion:** Neuroretinitis affecting both the eyes are rare in nature. Detailed history taking and accurate clinical acumen are necessary to conclude the right management. With timely and aggressive treatment, the progression of this condition and complication can be controlled.

### **The Sun seen through a small window: What does optic disc swelling tell us?**

Chong Wen Khang, Chee Shew Fei, Mandy Cheong Moon Yee, Chong Mei Fong  
Hospital Raja Permaisuri Bainun, Ipoh, Perak

**Objective:** To report cases of a varied spectrum of clinical presentations of bilateral optic disc swelling with different aetiologies

**Methodology:** Case series

**Results:** 1. 50 year-old lady with diabetes mellitus, presented with sudden onset, painless left eye visual disturbances and bilateral optic disc swelling. Investigations and neuroimaging showed no significant result and patient's visual condition improved with follow-ups. Diagnosis of diabetic papillopathy made. 2. 36 year-old gentleman with no co morbidity presented with binocular diplopia and left facial nerve palsy. Ocular examination revealed bilateral papilloedema in keeping with findings of large left temporal lobe extra-axial mass on neuroimaging. He was diagnosed with anaplastic astrocytoma on histopathological examination of tumour sample. 3. 44 year-old lady, with underlying diabetes mellitus, hypertension and dyslipidaemia, presented with bilateral eye painless visual impairment associated with headache. Examination showed she has bilateral papilloedema and stage 4 hypertensive retinopathy with blood pressure 187/115mmHg 4. 28 year-old lady with no co morbidity, presented with right eye visual impairment associated with inferior scotoma, pain on eye movement but no neurological symptoms. Ocular examination was significant of bilateral optic disc swelling. Diagnosis of bilateral optic neuritis is made and treatment ensued

**Conclusion:** Optic disc swelling can be due to either local or systemic causes. Hence, early detection, thorough evaluation and appropriate management under multidisciplinary approach are essential in cases of optic disc swelling of any causes.

### **Atypical Optic Neuritis In Undifferentiated Connective Tissue Disease**

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Hospital Teluk Intan, Teluk Intan, Perak

**Objective:** To describe a case of atypical optic neuritis in Undifferentiated Connective Tissue Disease (UCTD)

**Methodology:** A case report

**Results:** 34 years old Malay lady presented with multiple episodes of reduced vision since August 2014. Symptoms initially started on the left eye followed by 2 episodes on the right eye associated with headache, periorbital pain and peripheral numbness. On examination, left eye visual acuity dropped to light perception and right eye 6/18 to counting finger. Left eye optic disc was swollen whereas right eye appeared normal. Patient had been treated according to ONTT protocol during the 3 occasions. A detailed workout revealed ENA and Anti-SSA/RO positive. MRI showed a normal finding. Hence, a diagnosis of UCTD with atypical optic neuritis was made. She was given 6 cycles of intravenous Cyclophosphamide followed by Hydroxychloroquine and Azathioprine with prolonged tapering oral steroid dose. Currently, her residual visual acuity remains 6/60 on right eye and counting finger on the left eye. The optic discs were pale bilaterally. She was able to wean off from steroid and there was no sign of recurrence.

**Conclusion:** Atypical optic neuritis related to UCTD requires an urgent comprehensive evaluation to establish the diagnosis. Thus, early and aggressive treatment can be initiated early to prevent its recurrence that may affect the visual prognosis. Likewise, a continuous monitoring is essential and clinician should always take into account the potential risk of the disease to evolve into a defined CTD in near future.

### **Hemicrania continua with inconsistent visual field defect**

Tham Han Shu, Chong Wen Khang, Chan Suet Mei, Adil Hussein  
Hospital Raja Permaisuri Bainun, Perak / HUSM

**Objective:** To report a case of inconsistent visual field defect in hemicrania continua.

**Methodology:** Case report

**Results:** A 22-year-old Indian lady with no comorbid presented with recurrent episodes of left eye pain, photophobia, lacrimation and redness which was associated with mild left eye ptosis for 2-year duration. She developed continuous left-sided headache over frontal and parietal region with blurring of vision during superimposed exacerbations which usually lasted for about 2 days. It was associated with transient left eye scintillating scotoma. Examination revealed 6/9 vision over both eyes, mildly oedematous left eyelid with injected conjunctiva. Cornea was clear with quiet anterior chamber. There was no relative afferent pupillary defect. There was increased cup-disc ratio over both eyes with no thinning of retinal nerve fibre layer which was suggestive of physiological cupping. She eventually developed side-shift pain. Subsequent visual fields revealed inconsistent visual field defect over both eyes where patient develop scotoma during episodes of pain exacerbation. Secondary etiologies were excluded whereby her MRI and MRV brain was normal. Other neurological examination was unremarkable. She was diagnosed hemicranias continua as there was complete resolution of headache with indomethacin.

**Conclusion:** Strictly unilateral headache is a red flag sign. Detailed history and appropriate investigations are mandatory to exclude secondary causes. Hemicrania continua is a rare primary headache which can present with side-shift headache and inconsistent visual field defect. There may be a potential link with visual field defect which is currently not a diagnostic criteria of hemicranias continua

## **Atypical Presentation of Optic Neuropathy with Underlying Thyroid Disease.**

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**Objective:** To report atypical presentation of optic neuropathy in patients with underlying thyroid disease.

**Methodology:** Interventional case series

**Results:** The first patient was 70 years old lady with underlying hyperthyroidism and history of left eye compressive optic neuropathy in fibrotic stage of thyroid eye disease (TED) with squint surgery done in 2012, presented with sudden onset of right eye painless total ophthalmoplegia and partial ptosis. Examination showed right frozen eye with vision acuity of 6/60, partial ptosis and reduced in optic nerve function. Imaging showed right superior rectus muscle enlargement with thickened intraorbital part of right optic nerve. She was diagnosed with right eye idiopathic orbital inflammatory disease with atypical optic neuritis. She was started on high dose IV methylprednisolone.

The second patient was 24 years old lady with underlying hyperthyroidism presented with left eye blurring of vision for 6 months. Left eye vision acuity of 3/60, reduced left eye superior gaze and optic nerve function test, optic disc was swollen with macula striae. B scan showed presence of T sign. CT scan showed thickened left lateral and medial recti muscle, left posterior orbital coat and left optic nerve. Patient was diagnosed with left eye posterior scleritis and was started on oral prednisolone. The subtenon fluid resolved after commencement of oral prednisolone when reviewed by Medical Retinal team.

**Conclusion:** Optic neuropathy is common complication of TED caused by compression of nerve at the orbital apex by enlarged recti and swollen orbital tissue. However, there is dilemma of diagnosis when patient with underlying thyroid disease presented with optic neuropathy and atypical manifestation of ptosis or scleritis. Hence, imaging modalities including ultrasonography play an important role in these cases.

## **Blindness of A Forgotten Lion: Ocular Leprosy**

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**Objective:** To report a case of lepromatous leprosy with ocular manifestation which misdiagnosed as dermatitis by district hospital.

**Methodology:** Interventional case study

**Result:** This was a 69 years old Malay gentleman with underlying hypertension and dermatitis, presented with bilateral eye slowly progressive painless blurring of vision for 3 years duration. Further history reviewed that he had painless skin lesions since 3 years ago, which was diagnosed and treated as dermatitis by district hospital.

Examination showed right eye vision acuity of perception to light and left eye vision acuity of non-perception to light. Bilateral madarosis. Generalized dot like opacity noted on the right eye corneal with white cataract. Left eye examination showed dense corneal scarring with deep corneal vascularization. Systemic examination showed leonine facies, generalized hypopigmentation lesion with reduced in sensation widespread, thickening of nerve felt over the limbs, and deformities of the fingers and toes seen. Slit-skin smear showed positive for acid fast bacillus. He was diagnosed with lepromatous leprosy with ocular involvement.

**Conclusion:** Leprosy is rare. However ocular manifestation of leprosy such as eyelid deformity, decreased corneal sensation, corneal vascularization and cataract can lead to visual disability and blindness. With early recognition and treatment, leprosy can be cured and incidence of the blinding condition can be prevented.



## **Conjunctival Squamous Cell Carcinoma : A Challenge in Management**

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Department of Ophthalmology, University Malaya Medical Centre

**Objective:** To discuss a case of conjunctival squamous cell carcinoma complicated with surgical induced scleritis.

**Methodology:** A case report

**Results:** A 89 years old Chinese gentleman with known history of Diabetes Mellitus and Hypertension presented with history of right eye whitish swelling for 1 week. Visual acuity on the right eye was 6/15 and left eye was 6/60. Presence of multilobulated mass of 9mm x 9mm at temporal conjunctival region extending on cornea. Left eye anterior segment showed cataract. Intraocular pressure and fundus examination was normal. Patient underwent right eye wide excision biopsy/alcohol/ mmc 0.03%/cryotherapy and amniotic membrane graft under local anesthesia. Patient developed scleral thinning 3.6mm by 1.7mm with epithelial defect. Patient was treated with oral steroids. Scleritis subsequently improved. However, patient started to develop mass at inferior fornix. Histopathological examination revealed squamous cell carcinoma. Magnetic resonance imaging of orbit did not show any orbital extension. Computed tomography of thorax, abdomen and pelvis did not show any distant metastasis. Patient was initiated on topical 5 Flurouracil 1% and planned for 3 cycles. Patient was started topical 5FU cautiously due to history of surgical induced necrotizing scleritis and worsening ocular surface disease. Latest follow up showed decreasing mass at fornix and no new mass.

**Conclusion:** Management of conjunctival squamous cell carcinoma can be challenging and should be tailored according to individual basis

## **Azithromycin Combine Therapy: A Recipe in Treating Ocular Rosacea**

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Department of Ophthalmology, University Malaya Medical Centre

**Objective:** To report a complete regression of Ocular Rosacea treated with short course of combined oral and topical azithromycin.

**Methodology:** Case report

**Results:** A 20 years old Malay girl presented with history of right eye blurring of vision for 2 months. It was associated with redness and watery discharge. Visual acuity on the right eye was 6/36 pinhole 6/12 and left eye was 6/9. Examination of the affected eye revealed injected conjunctiva with presence of meibomitis and blepharitis. Cornea showed presence of annular dilated neovascularization overlying corneal opacity extending from 5 clocks at the limbal region towards pupillary axis. Lens, intraocular pressure and fundus examination was normal. Patient also noted to have rhinophema at the tip of her nose. Diagnosis of ocular rosacea was made and patient was started on Tobramycin ointment and T doxycycline 100mg OD for two weeks. She was referred to visiting cornea clinic and dermatology clinic. She was treated with 2 short courses of oral azithromycin 500mg OD and topical Azythromycin 1.5% BD for three days then another repeated course after two weeks. At one month follow up patient symptoms improved and she regained uncorrected distance vision of 6/9. Opacity on the right cornea regresses to minimal haze and ghost vessels seen within the area. The conjunctiva was white and both meibomitis and blepharitis resolved. There was no recurrence noted up to the fourth months of her follow up.

**Conclusion:** Short pulse therapy combining oral and topical azithromycin showed encouraging result in treating ocular rosacea.

## **Ocular Surface Squamous Neoplasia (OSSN): A Case Report**

Andrew YSX, Liew OH, Rosilah, Rohanah  
Hospital Kuala Lumpur / UMMC

**Objective:** To present an OSSN case that successfully treated with topical Mitomycin-C monotherapy.

**Methodology:** Case report

**Results:** Mr. SS was an 68 year-old Indian man with underlying hypertension, hyperlipidemia, ischemic heart disease and end-stage renal failure on regular hemodialysis who had presented with gradual onset of right eye pain, redness and tearing for two weeks duration. He was also under follow up for right eye blindness secondary to CRVO and rubeotic glaucoma, and left eye POAG on 4 topical anti-glaucomas. On examination over the right eye, there was gelatinous lesion with leukoplakia at the limbus from 2 to 7 o'clock. Right eye IOP was 2 mmHg, anterior chamber was quiet, ectropion uvea and brunescant cataract were seen. B scan was unremarkable. There was no palpable pre-auricular and submandibular lymph nodes. He was planned for excision biopsy with cryotherapy under general anaesthesia, however operation was unable to proceed due to high risk under general anaesthesia in his serious medical conditions. He was treated with topical Mitomycin-C 0.02% QID for 3 cycles. The lesion was completely resolved later and show no recurrence at 1 year follow up.

**Conclusion:** Topical Mitomycin-C monotherapy is effective in treatment of OSSN especially when patient has serious medical conditions that subject to high risk under general anaesthesia for surgical intervention

## **Outcome of Idiopathic Full Thickness Macula Hole Surgery: Our Experience at Hospital Selayang**

Yeoh Seng Hong, Jane Foo, Zabri Kamarudin  
Hospital Selayang, Batu Caves, Selangor

**Objective:** To evaluate the anatomical and visual outcomes of Pars Plana Vitrectomy (PPV) for idiopathic full thickness macula hole (FTMH).

**Methodology:** This was a retrospective case series done in Hospital Selayang of patients who underwent FTMH surgery from January 2016 to December 2017. All patients underwent PPV with internal limiting membrane (ILM) peeling and perfluoropropane (C3F8) tamponade. Major outcome parameters were: pre and post-operative best corrected visual acuity (BCVA), macula hole index (MHI) and anatomical closure at 3 months.

**Results:** Total of 48 patients were included in the study, of which 13 (27%) were male. 38 (79%) patients achieved anatomical closure at post-operative three months. Younger patients age group (mean= 65.2  $\pm$  8.4 SD years) reported higher closure rate compared to older patient age group (mean=69.5  $\pm$  4.2 SD years) [P=0.03]. Larger MHI (mean=0.54 $\pm$  0.2 SD) also had better closure rate than smaller MHI (mean=0.33 $\pm$  0.08SD) [P=0.015]. Majority 26 (54%) patients experienced improvement in BCVA (average Snellen visual acuity of 6/21 at three months versus average Snellen visual acuity of 6/36 pre-operatively). 17 (35%) patients maintained their pre-operative BCVA, while 5 (10.4%) patients had worse post-operative BCVA due to cataract. There were no significant differences between gender, and duration of symptoms to closure rate.

**Conclusion:** Our study is similar to worldwide studies with closure rate of approximately 80%. Larger MHI and younger patients have better closure rate. More than 80% of patients retained at least similar vision post-operatively, with more than 50% achieved significant vision improvement

### **Case Series of Intraocular Foreign Body (IOFB) in Hospital Raja Permaisuri Bainun Ipoh**

Mohd Khairy Bin Zainal Abidin, Kanmani Mani, Mandy Cheong Moon Yee, Jasvinder Singh  
Hospital Raja Permaisuri Bainun Ipoh

**Objective:** To present a case series of IOFB with varied clinical features

**Methodology:** Case series

**Results:** 2 patients were reviewed. A 17year old Malay boy had thin wire poked into his RE while grinding the car roof top, presented with RE pain, redness with the wire still jutting out from the RE. Visual acuity RE is CF. Thin wire was still visible at the cornea penetrating the iris and lens, with injected conjunctiva but no hyphema/hypopyon. RE examination under anaesthesia/foreignbody removal/corneal toilet & suturing/lens aspiration/anteriorvitrectomy/intracameral&intravitreal antibiotic injection under general anaesthesia was done. The wire was removed. After operation, visual acuity RE 1/60 pH 4/60, B-scan-retina flat, vitreous clear, fundus-no vitreous hemorrhage or retinal haemorrhage. Secondary IOL needed later. A 56year old Indian man alleged RE injured by FB while cutting grass, presented with RE pain, BOV, glaring. Visual acuity RE is HM. At anterior segment, traumatic iridotomy was seen, corneal scleral laceration wound, less 1mm at 3 o'clock, hyphema less 1mm. Fundus-FB? metal piece with VH inferiorly and retinal haemorrhage. RE corneal scleral toilet & suturing with intravitreal tapping and antibiotic given under local anaesthesia. Visual acuity RE 6/18 pH-6/12. Then RE plain phacoemulsification/pars plana vitrectomy/intraocular foreign body removal/laser under local anaesthesia was done. Noted intraoperatively commotio retinae with suspicious of retinal break inferiorly, lasered and the IOFB was removed. Post operation visual acuity RE is HM. Secondary IOL needed later.

**Conclusion:** Management for cases of IOFB can be complex, mode of treatment depends on the size of IOFB, its location and associated retinal changes. Foreign body injury associated with significant ocular morbidity.

### **Conjunctiva Necrosis Following Subconjunctival Amphotericin B Injection in Fungal Keratitis**

Tham Han Shu, Lau Jia Yee, Kursiah Mohd Razali, Adil Hussein  
Hospital Raja Permaisuri Bainun, Perak / HUSM

**Objective:** To report a case of conjunctiva necrosis following multiple subconjunctival amphotericin B injection in fungal keratitis.

**Methodology:** Case report

**Results:** A 30-year-old Bangladesh gentleman with history of sand entering his left eye and was diagnosed as having fungal keratitis by private ophthalmologist. He was treated with 3 doses of subconjunctival amphotericin B injections and topical antibiotics. Due to financial constraint, he came to HRPB for further management. The vision of his left eye was counting finger with thick epithelial plaque covering almost the whole cornea and linear conjunctiva necrosis measuring 4mm noted at the inferior fornix corresponded to the site of subconjunctival amphotericin B injection. He was treated with intensive antifungal and antibiotics eye drops. Debridement of epithelial plug was done and he was also given intra-cameral amphotericin B injection during hospitalization.

**Conclusion:** Topical administration of amphotericin B is commonly the first choice in treatment of fungal keratitis. Subconjunctival amphotericin B may be an adjunctive therapy in severe fungal keratitis to address the issue of compliance but this can lead to complications such as conjunctival necrosis.

## **Challenge in Managing a Perforating Ocular Injury with a Retained Intra-Orbital Foreign Body in a Young Man**

Wan Dalila bt Wan Hazmy, Ahmad Syazrin Abdullah bin Azlan, Shakira Jeffrey, Akmal Haliza Zamli  
Universiti Sains Malaysia

**Objective:** To report a case of perforating eye injury with a retained intra-orbital foreign body.

**Methodology:** A case report.

**Results:** A 24-year-old man sustained a perforating left eye with a retained intra-orbital foreign body following a high velocity injury at his workplace involving a piece of metal. Examination revealed Reverse Relative Afferent Pupillary Defect was positive on the left eye with left eye cornea laceration, 2 mm vertical at the visual axis with breached cataractus lens. CT scan orbit revealed the presence of an intra-orbital foreign body, 0.5 cm(height) x 0.2 cm(diameter) and it is about 0.5 cm distant from the posterior wall of the left globe, just superior-medial to the left optic nerve and 0.2 cm from the superior orbital wall. He underwent primary corneal toilet and suturing, lens aspiration, aphakic, intravitreal antibiotics (Vancomycin and Ceftazidime) under general anaesthesia. The foreign body was left in-situ. Post operatively, the left eye remained uninfected.

**Conclusion:** Trauma of the orbit is common, but intra-orbital metallic foreign body is a relatively rare scenario. Thus, it poses a diagnostic and management challenge in ophthalmologists. A comprehensive clinical examination, diagnostic investigation and plan of management is crucial for this unusual case. The prophylaxis antibiotic also plays a significant role in preserving the eye condition. Challenges comes upon deciding the need for removal the metal foreign body whether it outweighs the benefit or otherwise. Long term complication such as sympathetic ophthalmia is a risk that should be explained regarding prognosis of the patient's visual outcome.

### **Greater The Defaulter, Greater The Morbidity**

Umami Faradiana binti Abdul Rahim, Inderpreet Kaur, Ng Hong Kee, Chong Mei Fong  
Ophthalmology Department, Hospital Raja Permaisuri Bainun, Ipoh

**Objective:** We are reporting a case series of defaulters with late presentation of neovascular glaucoma (NVG) secondary to advanced diabetic eye disease (ADED) complicated with ocular morbidity.

**Methodology:** A case series.

**Results:** Mr. MF, a 28 year-old gentleman with strong history of young diabetics in the family and diagnosed with diabetes mellitus for a year. He is a frequent defaulter to diabetic clinic with poor compliance to medications. Further history revealed poor socioeconomic support as the cause for frequent defaulter. He is unemployed with history of drug abuse. On his first presentation to us in May 2018, his visual acuity for right eye was no perception to light (NPL) and 6/60 for left eye. He was diagnosed with right eye NVG secondary to ADED and left eye ADED. Laser panretinal photocoagulation was done. Mrs. R, a 48 year old lady, seen since 2014 initially for bilateral mild non-proliferative diabetic retinopathy. Laser panretinal photocoagulation was initiated for her since 2016 due to progression of diabetic retinopathy. Latest presentation in May 2018 after multiple defaulted episodes, revealed worsening to right eye with NVG secondary to ADED and left eye proliferative diabetic retinopathy with central retinal vein occlusion. Visual acuity was NPL for right eye and 6/60 for left eye. She has poor understanding of the severity of her condition.

**Conclusion:** Late presentation of NVG usually result in severe ocular morbidity therefore the cause for frequent defaulters need to be addressed to ensure successful management of NVG.



## **The Effectiveness of Corneal Gluing in a Case of Corneal Microperforation**

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**Objective:** Corneal perforation occurs as a result of infection, inflammation and trauma. It is categorized as an ophthalmic emergency and warrants immediate intervention. Depending on the severity and size of the perforation, treatment modalities may include patch grafts, penetrating keratoplasty, conjunctival flaps, tissues adhesives, and corneal gluing. The objective of this report is to demonstrate the outcome in treating a case of corneal micro-perforation with the use of the tissue adhesive cyanoacrylate and bandage contact lens.

**Methodology:** This case report describes a 34 year old gentleman who developed a left eye corneal microperforation. He had a history of penetrating injury secondary to being hit by a palm oil leaf 3 months prior. He underwent two surgical interventions. First, an emergency left eye foreign body removal, corneal toilet and suturing with plain lens aspiration was done. Subsequently, secondary suturing due to wound leakage. His condition improved and wound site healing well when he developed a fungal ulcer at the site of the initial injury which subsequently progressed to a micro leak. Corneal gluing with bandage contact lens application was done and it remained insitu for 1 month.

**Results:** Eventually, corneal epithelization occurred and micro-perforation sealed with improved vision.

**Conclusion:** Corneal gluing with cyanoacrylate may be a temporary procedure which allows some degree of wound healing to occur and help with restoration of the globe integrity however it has proven to be an effective method in the treatment of corneal micro-perforation.

### **Uveitis and Spectrum of Causes - A Terengganu Experience**

Mohd Alif Bin W Mohd, Mohd Mustaqim Bin Zulkifli Martin, Ameilia Ahmad, Rosiah Muda  
Ophthalmology Department, Hospital Sultanah Nur Zahirah, Kuala Terengganu

**Objective:** To determine the pattern of uveitis and spectrum of causes in Hospital Sultanah Nur Zahirah Terengganu.

**Methodology:** A total of 305 subjects were retrospectively analyzed through electronic medical records who presented to our clinic from 2011 till June 2017. All patients had a comprehensive history taking and ophthalmic examination was performed. Patients were classified according to International Uveitis Study Group definitions and those with infective endophthalmitis, uveitis following trauma or surgery, and lens-induced uveitis were excluded.

**Results:** Three-hundred and five subjects were evaluated and showed uveitis was unilateral and acute in majority of the cases. Most common causes of uveitis were idiopathic (54.8%). Anterior uveitis was the most common type of inflammation (62%), followed by panuveitis(26.2%), posterior uveitis (8.2%), and intermediate uveitis (3.6%). Among anterior uveitis, HSV was the most common cause (15.3%). Majority of intermediate uveitis cases were idiopathic (45.4%). Meanwhile Toxoplasmosis was the most common cause of posterior uveitis (20%) and panuveitis (11.3%). Herpes infection contributes as the most common cause of infective uveitis in Terengganu (40.3%).

**Conclusion:** The most common type of uveitis in Terengganu is anterior uveitis and the aetiology was mainly idiopathic. Herpes, tuberculosis and toxoplasmosis were the commonest form of infective uveitis. Vogt-Koyanagi-Harada disease and HLA B-27 were commonly seen as the non-infective causes of uveitis in Terengganu.

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### **A Case Presentation on A Rare Cause of Fungal Keratitis**

Sivashangkari Sugumaran

Hospital Sungai Buloh, Sungai Buloh, Selangor

**Objective:** To present a case on a rare cause of fungal keratitis.

**Methodology:** Case Report

**Results:** A 36 years old lady complaint of Right Eye sudden pain and reduced vision for past four days. Patient has a history of dust entered the eyes while burning trash few days prior to presentation. Patient is a known case of both eye lattice dystrophy with right eye corneal scar since 2015. On examination, right eye vision was hand movement. There is a central corneal ulcer measuring 3.5mm vertically and 3.5mm horizontally with an overlying similar size epithelial defect. There is also small central descemetocoele with hypopyon 3mm. Corneal scraping culture and sensitivity revealed *Penicillium* sp. Left eye unremarkable. Patient has no predisposing factor.

**Conclusion:** We treated this patient with intensive topical and systemic antifungal which resulted in resolution of the ulcer with scarring. Incidence of keratitis due to *Penicillium* sp is very low. Hence we report this case.

**The Prevalence of Acute Dacryocystitis and Outcomes of Conventional Dacryocystorhinostomy Post Acute Dacryocystitis in Hospital Sultanah Nur Zahirah, Terengganu.**

Arjamilah Mn , Syahida Aw, Higrayati Ak  
Hospital Sultanah Nur Zahirah, Kuala Terengganu

**Objective:** To study the prevalence of acute dacryocystitis and success rate of conventional dacryocystorhinostomy following acute dacryocystitis.

**Methodology:** The study was retrospectively analysed through electronic medical records of patients admitted for acute dacryocystitis from 2013 to 2017. Patients who underwent conventional dacryocystorhinostomy were followed -up until 6 months post operation. Successes were defined as resolution of epiphora, negative syringing test and no recurrence of dacryocystitis. The parameters studied were age, gender distribution, culture findings and both structural and functional outcomes of the operation.

**Results:** Forty-one patients were admitted for acute dacryocystitis. Majority were female (68.3%). The age group range from Day 37 of life to 81 years old. Cultures from eye swab were positive in 21.9% (9 patients). Common organism grown were *Streptococcus aureus* and *Escheria coli*. Thirteen patients underwent conventional dacryocystorhinostomy at 2 to 14 months (average of 7.1 months) from the onset of acute dacryocystitis. All had resolution of epiphora, negative syringing test and no recurrence of dacryocystitis during 6 months follow-up after operation.

**Conclusion:** Acute dacryocystitis is one of the common diseases of the eye. It is an important cause of ocular morbidity both in children and adults. Prompt treatment with broad spectrum antibiotics is important and surgical treatment following post acute dacryocystitis brings good outcomes.

### **Diagnostic Dilemma in Adolescent with Intraocular Tumor**

Jasvinjeet Kaur Sidhu, Jamalia Rahmat, Nor Akmal Bahari, Hafizah  
Ophthalmology Department, Hospital Kuala Lumpur

**Objective:** To report a case of choroidal neoplasm

**Methodology:** Case report

**Results:** A 15 year old Malay gentlemen with underlying bronchial asthma was referred to our centre in March 2018 with the complaint of left eye central scotoma since early 2017. His symptoms progressively worsened. Patient was initially seen at a private centre treated for left eye subretinal fluid collection with macula swelling which resolved with topical steroid. Initial vision was 6/12 which subsequently improved to 6/6 post treatment. Patient was not given follow up, he then presented to us after 1 year with total loss of vision. Ophthalmologic assessment of the left eye revealed engorged circumcilliary injection, an amaurotic pupil with reddish pigmented elevated mass with an intraocular pressure of 34. Fundus examination showed total retinal detachment with vitreous haemorrhage. B-scan revealed a solid choroidal mass with vitreous haemorrhage. MRI orbit findings were suggestive of subretinal enhancing lesion associated with retinal detachment with a differential of malignant uveal melanoma or ocular metastases. MRI brain, ultrasound liver, and blood investigations were within normal findings. We then proceeded with left eye diagnostic enucleation with prosthesis fitting. HPE of globe were consistent with choroidal neoplasm.

**Conclusion:** As most patients with choroidal neoplasm has no or vague presentations at the beginning, a periodic follow up is utmost important.

## **Ocular Morbidity in End Stage Renal Failure (ESRF) Patients Following Cataract Operation Done in Hospital Sultanah Nurzahirah, Terengganu**

Syahida Aw, Arjamilah Mn, Higrayati Ak  
Hospital Sultanah Nurzahirah, Kuala Terengganu

**Objective:** To study the intra-operative and post-operative complications in ESRF patients who underwent cataract surgery. The most frequent complications were observed in this study

**Methodology:** Hundred-fifty two ESRF patients who underwent cataract surgery from 2013-2017 were retrospectively analysed through electronic medical records and National Eye Database (NED). Age, gender, type of cataract surgery, intra-operative complications and post-operative ocular morbidities within 3 months post surgery were studied. Result was compared with 9TH report of the NED 2015.

**Results:** Total of 152 ESRF patients underwent cataract surgery. Majority of patients were male (55%), age ranging from 36 to 83 year old. Types of cataract surgery were phacoemulsification 123 patients (81%), ECCE 20 patients (13%), lens aspiration 3 patients (2%), plain phacoemulsification 3 patients (2%), phacoemulsification converted to ECCE 2 patients (1%) and phacoemulsification converted to ICCE 1 patient (1%). The most common intra-operative complication was posterior capsule rupture (3.2%) followed by extended CCC (2.6%), bleeding from iris (2.6%), zonular dialysis (1.9%), descemet tear (1.3%), hyphema due to bleeding from wound incision (0.6%). Post operative complications were post op endophthalmitis 1 patient (0.6%) and iris capture 1 patient (0.6%). According to national data, posterior capsule rupture and zonular dehiscence were reported 2.6% and 1.4% respectively.

**Conclusion:** From this study showed that ESRF patients have higher risk to develop intra-operative complications as compared to national data.

## **Young Hypertensive Retinopathy; Is it Really Hypertension?**

Chew Chang Feng, Mohd Khairy bin Zainal Abidin  
Hospital Raja Permaisuri Bainun, Ipoh

**Objective:** To report a case of posterior fossa tumour disguising as hypertensive retinopathy in a young adult.

**Methodology:** Posterior fossa tumour is extremely rare and is an unusual cause of blurring of vision in young hypertensive. The common spectrums of intra-axial posterior fossa tumours include medulloblastoma, cerebellar astrocytomas, brain stem glioma and ependymoma which can cause devastating irreversible vision loss. They are frequently accompanied with symptoms of increased raised intracranial pressure.

**Results:** A 37 year old hypertensive man presented with acute painless right eye blurring of vision for 4 days. He denies any history of nausea, headache, vomiting or visual field defect. Ocular examination reveals marked reduction in visual acuity in both eyes. Fundus examination showed grade 4 hypertensive retinopathy with intra-retinal haemorrhages confine to the optic disc. Mid-periphery retina was fairly clear with minimal hypertensive changes. His blood pressure was 170/100 mmHg during presentation. Urgent CT Brain and Orbit demonstrated intra-axial, infra-tentorial mass causing obstructive hydrocephalus which he underwent emergency left ventricle-peritoneal shunt. MRI brain was done post operatively showing a large right cerebellar mass suggestive of posterior fossa tumour with mass effect.

**Conclusion:** Early diagnosis and treatment is mandatory. It is essential to highlight this alarming presentation in a young adult as it is an indicator of the ophthalmologic morbidity associated with systemic disease. The outcome is good if detected early and treated successfully.

## **Bilateral Simultaneous Non-arteritic Anterior Ischemic Optic Neuropathy: A Case Series**

Umami Faradiana binti Abdul Rahim, Lau Jia Yee, Chan Suet Mei, Chong Mei Fong  
Ophthalmology Department, Hospital Raja Permaisuri Bainun, Ipoh

**Objective:** To report cases with bilateral simultaneous non-arteritic anterior ischemic optic neuropathy (NAION) and to describe the different clinical manifestations associated with it. NAION with bilateral involvement, when present, is usually sequential. Bilateral simultaneous NAION is extremely rare.

**Methodology:** A case series.

**Results:** Mr. AA, a 58 year-old gentleman with end stage renal failure and hypertension presents with bilateral blurring of vision for 6 months, right eye worse than left eye. Visual acuity for right eye is 6/60 and left eye 6/24. There is no relative afferent papillary defect (RAPD). Fundus examination reveals bilateral optic disc swelling with optic disc drusen. Humphrey visual field tests showed altitudinal visual field defects. He is diagnosed as bilateral NAION and referred to local health clinic for commencement of aspirin. Mr. LWD, a 67 year-old gentleman with diabetes mellitus presents with left eye progressive blurring of vision and right eye central scotoma for a week. Visual acuity of right eye was 6/60 and left eye 6/36 pinhole 6/9. Presence of right RAPD seen with the fundus examination showed bilateral optic discs swelling. Bjerrum test for right eye showed constricted visual field. He is diagnosed as bilateral NAION as CT brain/orbit was normal.

**Conclusion:** Bilateral optic disc swelling as a presentation of bilateral simultaneous NAION is rarely reported. The visual field defects as shown in both cases can be different with atypical pattern for NAION giving rise to dilemma in diagnosis and management. Therefore, other etiologies need to be considered and ruled out.



### **Beauty or Bane? A Case Series of Contact Lens Related Complications**

Umami Faradiana binti Abdul Rahim, Satheitra Rajendran, Cheong Moon Yee, Chong Mei Fong  
Ophthalmology Department, Hospital Raja Permaisuri Bainun, Ipoh

**Objective:** We report a case series of a spectrum of contact lens related complications to highlight the potential dangers resulting from improper use and weak enforcement of their sales legislation.

**Methodology:** A case series of 5 contact lens wearers with improper use of contact lens resulting in complications. Two patients had corneal abrasion while the other three ended up with corneal ulcer. Corneal scraping for culture and sensitivity were done for the corneal ulcer cases.

**Results:** The patients, between 12 to 34 years old comprising two males and three females of which two were first time contact lens wearers. Four used them for cosmetic purpose in conjunction with a festive celebration while one wears a prescription contact lens. Although the majority of the lenses were purchased from optical store, one patient did so from a boutique, proving that the sales of contact lens does not comply with the existing regulations. Both corneal abrasion cases responded well to treatment. All three corneal ulcer cases were treated empirically with topical gentamycin and ceftazidime. The culture and sensitivity results were positive for *Pseudomonas aeruginosa*. Two of the patients healed with corneal scar.

**Conclusion:** Contact lens can both be used in correction of refractive error and cosmetic purposes. Though highly applauded for ease of use and availability, the ocular effects from improper use can be detrimental. Minor complications are easily managed but more serious complications can lead to permanent visual impairment. Proper enforcement of contact lens sales legislation can help to reduce the incidence of complications.

### **Vibrio Mimicus Corneal Ulcer– From The Sea to The Eye**

Umami Faradiana binti Abdul Rahim, Cheong Moon Yee, Chong Mei Fong  
Ophthalmology Department, Hospital Raja Permaisuri Bainun, Ipoh

**Objective:** To report an unusual culture-positive *Vibrio mimicus* corneal ulcer and its management.

**Methodology:** A case report.

**Results:** A 41 year-old fishmonger presented with one day history of foreign body entering the left eye, following which he admitted to rubbing the eye and self-instillation of an old eye cream. He then slept with it overnight. He woke up the next day with painful, red eye and visible corneal opacity. Visual acuity of the left eye was 6/60 on presentation. There was a central corneal ulcer measuring 3.4 mm vertically by 3 mm horizontally with small stromal infiltrate and 1 mm hypopyon level. Corneal scrapping was done and he was treated empirically with gutt fortified gentamycin 0.9% and gutt cefuroxime 5%. There was a rapid progression of the ulcer in the ensuing 2 days with development of central corneal thinning and thick slough from the stromal infiltrate – both suspicious features of fungal corneal ulcer, hence oral doxycycline and topical antifungals were initiated. The culture later came back positive for *Vibrio mimicus*. Treatment was successful and the corneal ulcer healed with central corneal scar. The final visual acuity of the left eye was 6/36.

**Conclusion:** *Vibrio mimicus*, a gram negative bacteria is an inhabitant of seawater and usually cause gastroenteritis manifestations on exposure to shellfish and seawater. It is never demonstrated as the causative pathogen in corneal ulcer. The patient being a fishmonger, it is highly likely that it is contracted from his nature of work.

## **Miller Fisher Syndrome: A Case Report Emphasizing Clinical Diagnosis despite Negative Investigative Findings**

Koay Jiah Bou, Tan Li Mun  
Hospital Sibul, Sibul, Sarawak

**Objective:** To report a case of Miller Fisher syndrome to emphasize on clinical diagnosis despite negative investigative findings.

**Methodology:** Case report

**Results:** Miller Fisher syndrome (MFS) was recognized by Charles Miller Fisher in 1956 to be a rare subtype of Guillain-Barre syndrome with clinical triad of ophthalmoplegia, rapidly evolving ataxia and areflexia. This is a case of a middle-aged lady who presented with sudden onset of double vision and unsteady gait. She was subsequently observed to have evolving areflexia in all limbs with worsening ophthalmoplegia and ataxia. Other associated symptoms such as bilateral ptosis and headache did not fit the clinical picture while other blood workup for Anti-GQ1b antibody, neuroimaging and cerebrospinal fluid analysis were not helpful in establishing the diagnosis of MFS. Final diagnosis was later made based on the aforementioned clinical triad, after excluding other differential diagnoses. Her condition gradually improved with only medications given for symptomatic relief and she is still under our follow up in both eye and medical clinics.

**Conclusion:** It is concluded that MFS can be a clinical diagnosis as it may not exhibit positive investigative findings of Anti-GQ1b antibody which is present in more than 80% of MFS patients.

### **A Rare Case of Bilateral Cavernous Sinus Thrombosis Following A Bee Sting**

Bala Nageswary, Chan Suet Mei, Chong Mei Fong  
Hospital Raja Permaisuri Bainun Ipoh

**Objective:** To report a rare case of bilateral cavernous sinus thrombosis following a bee sting

**Methodology:** A case report

**Results:** A 55 years old gentlemen with diabetes mellitus and dyslipidemia, who had history of bee sting over tip of the nose 3 days prior admission for nasal abscess with facial swelling. Patient underwent incision and drainage of nasal abscess and started on IV antibiotics. On Day 3 of admission, noted rapid progression of bilateral orbital swelling with chemosis. Right vision 6/36, left vision 6/24. No relative afferent pupillary defect. Bilateral extraocular muscle movements were full. He was treated as bilateral preseptal cellulitis with impending orbital cellulitis. CT Brain/Orbit suggestive of preseptal cellulitis. On day 4 of admission, periorbital swelling worsens with bilateral pupils dilated. Left eye developed proptosis with bilateral restricted eye movement with conjunctival congestion. Fundus examination noted no disc swelling, dilated or tortuous vessels. CT Venogram noted bilateral superior ophthalmic vein thrombosis with cavernous sinus involvement. S/C anticoagulant was initiated and the condition progressively improved. Repeated MRA/MRV on day 7 of admission noted resolved cavernous sinus thrombosis, right superior ophthalmic vein thrombosis and resolving left superior ophthalmic vein thrombosis. Treatment was continued. CT Venogram was repeated on day 13 of admission noted no evidence of bilateral cavernous sinus thrombosis and superior ophthalmic vein thrombosis. Upon discharge, no orbital swelling and bilateral extraocular muscle movements improved

**Conclusion:** We report a case of bee sting to tip of the nose causing rapid progression to cavernous sinus thrombosis and initiation of s/c anticoagulant improved the condition in this case.

### **Cataract surgery, where do we stand?**

Chong Wen Khang, Chee Shew Fei, Ng Hong Kee, Chong Mei Fong  
Hospital Raja Permaisuri Bainun, Ipoh

**Objective:** To analyse the demographic features and clinical outcomes of cataract surgeries in HRPB and Nationwide

**Methodology:** Analysis of data collected from National Eye Database of cataract surgeries in HRPB and Malaysia in year 2017

**Results:** There were 3467 cataract surgeries performed in HRPB and 54017 cases in Malaysia. The mean age of patients in HRPB and Malaysia was 67.35 and 66.06 respectively. HRPB patients comprised Chinese 43.4%, Malay 28.4% and Indian 20.5%; while the distribution for Malaysian patients were Malay 44.2%, Chinese 28.5% and Indian 11.7%. Most cataracts are of primary cataract in HRPB (97.6%) and nationwide (94.3%). Secondary cataracts made up of a small fraction all cataracts in both (1.6%). 56.9% of HRPB patients versus 65.1% of all Malaysian patients had no ocular co-morbidity. 66.7% of HRPB patients and 77.3% of Malaysia patients had pre-operative BCVA worse than 6/12. Phacoemulsification was performed more frequently in HRPB (94.6%) and most of the operations were performed under local anaesthesia (92.3%) and under daycare (72.3%). In comparison with Malaysia database, phacoemulsification was performed 91.3% of the time, 93.2% under local anaesthesia and 73.8% in daycare settings. 95.9% of HRPB surgeries had no intra-operative complications as compared to 95.1 % of the Malaysia patients . Post-operatively, 83.2% of all eyes in HRPB had BCVA Of 6/12 or better. There were no cases of post-operative infective endophthalmitis.

**Conclusion:** The findings from this study indicated that the demographics and outcome of cataract surgery performed in HRPB, Ipoh compares well to the national database and is promising.

## **Looks Can Be Deceiving; Sinonasal Squamous Cell Carcinoma**

Tikambari E, Nazrah Ramli  
Hospital Selayang

**Objective:** To report a rare presentation of sinonasal squamous cell carcinoma that portrayed entirely with ophthalmology symptoms. Introduction Sinonasal tumours are rare tumours of upper respiratory tract and squamous cell carcinomas (SCC) occur very rarely in sinonasal tract among all the other head and neck SCC.

**Methodology:** Case report

**Results:** A 65 years old lady presented with sudden onset, progressively worsened proptosis for 2 months duration. On further questioning, she had history of gradual onset RE ptosis associated with blurring of vision for 1 year duration. Examination revealed marked relative afferent pupillary defect, proptosis and partial ptosis of right eye with a visual acuity of 6/24 pinhole 6/9-3. Fundus examination was normal in right eye but the extraocular muscle movements were restricted in all gaze. This patient also had loss of nasolabial fold on right side that created suspicion of 7th cranial nerve involvement and so possibilities of space occupying lesions. Computerized tomography of brain and orbit showed right nasal cavity mass with extensive local extension into orbit, nasolacrimal duct, maxillary sinus and oral cavity, all on the right side. The endoscopy and biopsy confirmed the diagnosis.

**Conclusion:** The origin and extend of sinonasal tumour maybe confusing in the course of its diagnosis due to the close relation and continuity of nasal cavity, paranasal sinuses and the orbit especially when the symptoms are deceiving as in the above case. Thus a careful and thorough examination is essential to detect the condition early and to give the relevant prompt treatment.

### **A Hushed Eye with a Riddle**

Inderpreet Kaur, Hing Siau Tiak, Chan Suet Mei, Chong Mei Fong  
Hospital Raja Permasuri Bainun, Ipoh

**Objective:** We report the case of unilateral horizontal gaze palsy secondary to injury of extraocular muscle without anterior segment involvement

**Methodology:** Case Report

**Results:** A 14 years old boy was allegedly kicked onto the lateral left side of his face. Post trauma complaints of diplopia and pain on LE movement. On examination both eye had vision of 6/6 with absence of RAPD. Anterior segment of the eyes was normal with no findings on both fundus. In primary position gaze was orthotropic with restriction of lateral gaze over left eye. Other cranial nerve examination was normal with no neurological deficit. Ct Brain and Orbit revealed undisplaced left infraorbital wall fracture with no muscle entrapment. Patient was initially diagnosed as neuropraxia in view of no other ocular trauma and based on prior normal scan results. However upon further investigation MRI brain and orbit showed complete tear of left medial rectus muscle and hematoma of left inferior and lateral recti muscle with left infraorbital wall fracture. Patient was offered surgical intervention however was not keen.

**Conclusion:** Although rare, extraocular muscles can be injured without any involvement of the anterior segment. MRI is the modality of choice in evaluating extraocular muscles as compared to CT scan. Neuropraxia of peripheral nerve may be a resultant of trauma however this should be a diagnosis of exclusion

## **Neuromyelitis Optica Case Series: Challenges In Diagnosis**

Ju Juen Chin, Kuhapriya Selvarajah, Thilakavathy Tharmalingam, Kogilavaani Jeyaraman  
Department of Ophthalmology, Hospital Raja Permaisuri Bainun Ipoh

**Objective:** To describe the clinical presentations, investigations and outcome of 3 NMO patients presented to our clinic.

**Methodology:** Case Series

**Results:** The 3 patients were between 30-50 years old with 2 females and 1 male. All presented with features of both ON and acute myelitis events. Visual acuity (VA) on presentation was <1/60 in 2 patients. 1 patient had decreased red desaturation and light brightness perceptions with 6/6 VA and unilateral optic disc swelling. MRI confirmed presence of hyper intense lesion in optic nerve and spinal cord. However, only 1 patient was positive for AQP4-IgG. All patients received 5 days of high dose intravenous steroids followed by slow tapering dose over months. VA improved to 6/6 after a month of treatment. Sign and symptom of acute myelitis also improved in all the patients.

**Conclusion:** NMO can present in a myriad of ways. Serum AQP4-IgG positivity is supportive but negative results does not exclude NMO. Challenges persist in diagnosis and treatment of NMO.



### **Surgically Induced Necrotising Scleritis**

Stella Sinnappan, Chandramalar T.Santhirathelagan, Che Mahiran Binti Daud  
Hospital Sungai Buloh, Sg Buloh

**Objective:** To report a case of surgically induced necrotizing scleritis (SINS) after pterygium excision and conjunctival autograft.

**Methodology:** Case report

**Results:** 81 years old man, presented 20 years after excision of primary pterygium with conjunctival autograft in the right eye with severe pain and redness in that eye. He had undergone cataract surgery in both eye 10 years after. On examination his right vision was 6/36, left vision was 6/12, noted scleral thinning on right eye nasally measuring 9.0mm x 5.2mm with siesle's positive, endothelial plaque at 4-5 o'clock at limbus, AC deep and quiet, PCIOL stable with normal fundus examination. No significant findings on left eye. He was diagnosed as right eye necrotizing scleritis secondary to Mitomycin C. Glue applied at thinning area and treated with gutt antibiotic and antifungal. His vision deteriorated to Hand movement within 1/52, and scleral thinning was getting larger with worsening fungal infection. Proceeded with right eye sclerokeratoplasty. Histopathology is negative for fungal, cornea tissue C & S no growth. 5 days post Penetrating keratoplasty he developed recurrence of infection complicated with scleral abscess, and a new area of scleral thinning. Treated with gutt and systemic antibiotic and antifungal. 5th month of follow up, infection was resolved, thinning area was conjunctivalized and stable, medications was tapered accordingly.

**Conclusion:** Surgically induced necrotizing scleritis is a rare complication of pterygium excision with conjunctival autograft. A pale graft with underlying avascular sclera and surrounding inflammation should arouse suspicion of this complication.

## **Bilateral Eye Active TED Refractive To Intravenous Methylprednisolone**

Tinesh Thamotaran, HI Cheng, PI Tang, Yushaniza Y  
Ophthalmology Department, Hospital Seri Manjung, Perak

**Objective:** To report a case of bilateral eye active thyroid eye disease with RE optic neuropathy.

**Methodology:** Case report

**Results:** A 54 year old Malay man with underlying Diabetes Mellitus, hypertension, hyperlipidemia, and hyperthyroidism on treatment. He presented to us with complaints of bilateral eye redness past 6 months and diplopia for 2 weeks. On examination, his vision was OD 6/36, pinhole 6/24 and OS 6/36, pinhole 6/24. RAPD was negative. His intraocular pressure was 22mmHg for both eyes. Conjunctiva were injected and chemosed. Both eyes were proptosed with presence of lagophthalmos and diplopia at primary gaze. Optic nerve functions initially were normal. Fundus BE were normal at presentation. Clinical activity score was 5 out of 7 which suggestive of active thyroid eye disease. Intravenous Methylprednisolone 500mg OD weekly for 6 weeks was started. On the 3rd week of steroid, patient's RE vision deteriorated. On examination, his vision was OD 6/60, pinhole 6/12 and OS 6/18 pinhole 6/6. RAPD was positive over RE with diminished optic nerve function. Fundus RE showed hyperemic OD with blurred disc margin nasally. CT orbit shows bulky recti muscles bilaterally. Patient then underwent RE endoscopic medial wall orbital decompression. Subsequently patient's vision improved to OD 6/24, pinhole 6/9 and OS 6/18 pinhole 6/9, optic nerve functions improved, however RAPD remained positive over RE.

**Conclusion:** Thyroid eye disease is a most common orbital pathology. Primary treatment will be corticosteroids. However in severe cases such as compressive optic neuropathy, surgical intervention i.e orbital decompression may be warranted.

## **The Red Eye, Simple Or Sinister?**

Vishel Soundarajan, Mandy Cheong Moon Yee, Chong Mei Fong  
Hospital Raja Permaisuri Bainun, Ipoh, Perak

**Objective:** We are reporting a case of traumatic direct carotid cavernous fistula(CCF) initially misdiagnosed as a case of conjunctivitis at a primary healthcare centre.

**Methodology:** Case report

**Results:** A 65 year old woman with a history of blunt craniofacial trauma following a road traffic accident three months prior to presentation, attended the eye clinic with a complaint of right eye redness associated with mild blurring of vision and diplopia of one month duration. Upon examination, she was noted to have 6/9 vision over the affected eye with a positive relative afferent pupillary defect, proptosis, gaze restriction, injected conjunctiva associated with corkscrew vessels, elevated intraocular pressure(IOP), and ocular as well as carotid bruit. She however showed no signs of venous stasis retinopathy. The provisional diagnosis of right traumatic direct CCF with ophthalmoplegia and raised IOP was confirmed with a computed tomography angiography. She was subsequently referred to the Hospital Kuala Lumpur neurosurgical department for further assessment and surgical intervention. Her delay in presentation however was attributed to a delay in referral as she was misdiagnosed by her local health center to have conjunctivitis and treated for a duration of two weeks with topical antibiotics before being referred for non-resolution of her condition.

**Conclusion:** In managing patients with a red eye, adequate detailed history-taking and a sound clinical suspicion especially at the primary care level is absolutely essential as the spectrum of causes are wide and some diagnoses may require tertiary care surgical intervention. Adequate education of primary care givers is important to avoid such misdiagnoses.

### **Subconjunctival Fluconazole as Adjunctive Treatment in Severe Fungal Keratitis**

Jesspreet Kaur Harban Singh, Ng Chun Wai, Ahmad Nurfaumi Akhtar Ali, Khairidzan Mk  
Ophthalmology Clinic Hospital Tengku Ampuan Afzan

**Objective:** To evaluate the efficacy of subconjunctival fluconazole (2%) as adjunctive therapy for severe recalcitrant mycotic ulcer patients

**Methodology:** A retrospective, non-comparative case series of three patients with severe mycotic corneal ulcer treated in Hospital Tengku Ampuan Afzan, Kuantan. Patients were fungal smear positive, deep stromal infiltrate with endothelial plaque and hypopyon, did not respond to intensive topical amphotericin B (0.25%) and fluconazole (2%) as well as oral fluconazole 200mg daily for more than a week of admission. All three were given 0.5ml of subconjunctival fluconazole (2%) injection. The toxicity effects were monitored after the first test dose of the injection. Patients response was based on the regression of the infiltrate leading edges, satellite lesions, endothelial plaque, and anterior chamber reactions. Poor response patient will receive another injection after day five to seven from the test dose injection given.

**Results:** Patients presented with vision worse than 6/60. Out of three patients, one was given twice injections, and the other two patients received three times injection. All three patients showed improvement, and the ulcer was healed. No local or systemic side effects or recurrence were reported in all three patients up to three months follow up. Two patients had uncorrected visual acuity of better than 6/18 at the three months follow up. Another patient was 6/60 due to axial scarring in a ten years post transplanted eye.

**Conclusion:** Subconjunctival fluconazole is beneficial in a recalcitrant severe mycotic corneal ulcer. It serves as adjunctive therapy potentially prevent further complication or need of surgical intervention.

## **Management and Visual Outcome of Cataract Surgery Complicated with Descemet's Membrane Detachment in Hospital Raja Permaisuri Bainun**

Hing ST, Kursiah MR<sup>1</sup>

Department of Ophthalmology, Hospital Raja Permaisuri Bainun.

**Objectives:** To study the surgical methods, visual outcome and complication of management in descemet's membrane detachment (DMD) post cataract surgery.

**Methodology:** Retrospective interventional case series at Hospital Raja Permaisuri Bainun from January 2016 until December 2017.

**Result:** We had performed either intra-cameral air or perfluoropropane(C3F8) tamponade in nine cases of DMD after complicated cataract surgery, and achieved 88% successful reattachment of descemet's membrane.

Timing of diagnosis and intervention were varied. Four patients were diagnosed intra-operatively, two patients diagnosed within one week and three patients only diagnosed after two weeks. Subsequently, three patients were treated intra-operatively, three patients treated after two week, and three patients intervened after one month.

Two patients successfully treated with intra-cameral C3F8 14%. Seven patients treated with intra- cameral air tamponade but two patients had re-detachment of descemet's membrane and required repeated air tamponade. We experienced no complications associated with these two surgical techniques. Seven patients achieved better final vision. Two patients remained poor vision secondary to mottled macula and central descemet's membrane scarring.

**Conclusion:** Majority of DMD can achieve a good visual outcome with both surgical interventions. However, optimal timing and method of treatment remain controversial and requires further exploration.

## **Orbital Myiasis in Invasive Baso-squamous Carcinoma – A case report**

Jason Allan Cheah Seng Soon, Chen Chui Yain, Ng Sok Lin  
Hospital Taiping

**Objective:** To report a case of orbital myiasis in a patient with baso-squamous cell carcinoma

**Methodology:** Case report

**Results:** A 62-year-old lady presented with excruciating pain and crawling foreign body sensation in the right eye for two days. She had a neglected eyelid carcinoma which started as a small ulcer over the right lateral canthus which slowly invaded into the orbit for the past five years. Examination revealed a huge ulcerated wound of the right orbit involving the eye brow, temple and malar region with massive maggots infestation. The right globe was phthisical with opaque cornea. Histopathology from margins of the ulcerated lesion revealed basosquamous carcinoma. Computed tomography imaging revealed the extent of the wound in addition to bony erosion of the right anterior ethmoidal air cells and zygoma with no intracranial extension. Computed tomography of thorax, abdomen and pelvis show no distant metastases. Manual removal of the maggots was done with regular povidone iodine and normal saline dressing of the wound. An estimation of 100 maggots were removed over five days duration. Patient subsequently underwent extended exenteration by Oculoplastic Team. All surgical margins were free from tumour and post exenteration wound of the right orbit is clean and healing.

**Conclusion:** Orbital myiasis is an uncommon condition which can complicate malignancies of the orbit. Treatment consists of larvae removal and surgical intervention for the malignancies.

## **Severe Vernal Keratoconjunctivitis with Corticosteroid Induced Glaucoma: Tube or Trabeculectomy**

New Sze Hui, Norshamsiah Md Din, Suresh Kumar Vasudevan, Leow Sue Ngein  
National University of Malaysia

**Purpose:** To report a case of steroid induced glaucoma in severe VKC which showed favorable response with augmented trabeculectomy.

**Method:** Case report

**Results:** A 20-year-old gentleman presented with severe VKC in both eyes at 10 years old. He was prescribed with topical corticosteroid for 20 months in view of his persistently active disease. Patient defaulted follow-up in the following 5 years during which he self-administered topical Fluoromethalone 0.1% on pro-re nata basis. He presented 5 years later with advanced open angle glaucoma. His IOP was 48mmHg in the right eye and 54mmHg in the left eye. Ahmed valve GDD was inserted in the right eye for uncontrolled IOP despite maximally tolerated medical therapy. He developed prolonged hypertensive phase and resumed 4 antiglaucoma medication within 6 weeks postoperatively. Patient underwent augmented trabeculectomy with MMC 0.04% in the left eye 5 months later and his IOP was maintained at low teens 2 months postoperatively without other medical therapy.

**Conclusion:** Prolonged use of steroids, even with weak compounds may result in steroid induced glaucoma. It often requires surgical intervention when medical therapy is insufficient to control the IOP. Tube implantation sometimes does not give favourable outcome as expected. Augmented trabeculectomy in young patients with steroid induced glaucoma may still result in good IOP control.

## **Successful Treatment of Endogenous Klebsiella Pneumoniae Endophthalmitis with Large Subretinal Abscess**

Mustaqim ZM, Alif WM, Rosiah M, Maizan Y  
Hospital Sultanah Nur Zahirah, Kuala Terengganu

**Objective:** To report a case of unilateral endogenous Klebsiella pneumonia endophthalmitis with large subretinal abscess in uncontrolled diabetic patient secondary to pyelonephritis

**Methodology:** Case study

**Results:** 39 year-old lady with uncontrolled diabetes mellitus and previous history of recurrent urinary tract infection secondary to staghorn calculi, admitted to medical ward due to sepsis with right pyelonephritis. Blood culture and sensitivity grew Klebsiella pneumonia therefore she was started with intravenous cefepime. Unfortunately on day four of admission she developed sudden onset reduced vision over right eye associated with eye pain and redness. Her best corrected vision of right eye was 6/18. Anterior segment examination showed injected conjunctiva with severe anterior chamber inflammation and hypopyon. Posterior segment examination revealed vitritis with large subretinal abscess at superonasal and exudative retinal detachment. Left Eye examination was unremarkable with visual acuity 6/6. The diagnosis of right endogenous endophthalmitis was made. Intravitreal tap and injection of antibiotics (vancomycin 2mg and ceftazidime 2mg) was done immediately and intravenous ciprofloxacin along with gutt cefuroxime, gutt gentamicin and gutt dexamethasone were given. Despite intensive systemic and topical antibiotics, her right eye condition worsened and her vision dropped to counting finger (CF). She finally underwent vitrectomy with silicone oil tamponade 2 days later. Postoperatively, patient responded well to treatment. vision gradually improved and there was a resolution of large subretinal abscess.

**Conclusion:** The visual outcome of endogenous Klebsiella pneumoniae endophthalmitis has been extremely poor in most cases. However, the improvement of final visual outcome could be achieved with early diagnosis, intravitreal antibiotics and early vitrectomy



## **Nasopharyngeal Carcinoma in Disguise; A Case Series**

Shelva Meena Gurusamy, Lakana Kumar Thavaratnam, Azhany Yaakub  
Ophthalmology Department Hospital Kuala Lumpur / University Science Malaysia

**Objective:** To exemplify various ocular presentation of nasopharyngeal carcinoma (NPC) presentation varying from uniocular reduced vision mimicking optic neuritis to involvement of 3rd cranial nerve to commonly 6th cranial nerve .

**Methodology:** Retrospective case series

**Results:** Case 1 presented with left eye optic neuritis and features of sinusitis ; initially responding to intravenous antibiotics . Recurrent attacks of optic neuritis followed in the course ; mimicking steroid dependent optic neuritis and noted involvement of bilateral eye. CT scan and MRI, showed left nasal mass extending into left pterygopalatine fossa, left orbital apex, cavernous sinus and sphenoid sinus. Patient underwent endoscopic tumor resection, intraoperatively noted the invasive nature of the inverted papilloma, the normal mucosa was breached and biopsy taken. Histopathology ( HPE) showed NPC , non-keratinizing type. Case 2 ; 69 year old gentleman presented with one eye complete ptosis and early 3rd nerve palsy with pupil involvement , suspected of Posterior Communicating Artery Aneurysm . CT scan and CTA revealed a sella mass extending to right nasopharynx with bony erosion. HPE noted NPC. The 3rd, 4th and 5th case all presented with 6<sup>th</sup> nerve palsies which then progressed to involve other cranial nerves as the disease progressed with involvement of orbital apex and cavernous sinus.

**Conclusion:** NPC commonly presents as 6th cranial nerve palsy, but can also present with other ocular manifestations. High clinical index of suspicion is required for these atypical patients as NPC in disguise are becoming common presentation of an uncommon disease.

## **Rare Manifestation of Bilateral Complete Ocular Paralysis in Ocular Myasthenia Gravis**

Kumutha Muthusamy  
Hospital Sungai Buloh, Sungai Buloh

**Objective:** To present a case on rare manifestation of bilateral complete ocular paralysis in ocular myasthenia gravis

**Methodology:** case report

**Results:** 63 year old lady presented with one month history of blurring of vision associated with worsening diplopia. Past medical history showed well controlled hypertension. Clinical examination showed evidence of complete bilateral paralysis of all ocular movements without any ptosis. Pupils were normal and fundus examination was unremarkable. She was normoreflexic, without cerebellar signs and no lid fatigability was present. Neurological and clinical examinations were otherwise unremarkable. Initial investigations including full blood count, electrolytes, liver function tests, and CRP were within normal ranges. CT imaging of the brain revealed no infarct or mass lesion. Further investigations including acetyl-choline receptor antibody, tumour markers, and syphilis serology and were also negative. Following this she was referred to neuro medical team whom discharged the patient with oral pyridostigmine and planned for outpatient repetitive nerve stimulation test. She was seen again in ophthalmology clinic after 6 weeks and noted improvement over her ocular paralysis. She is planned to be seen again by neuromedical team after the repetitive nerve stimulation test which is to be done soon.

**Conclusion:** The purpose of this case report is to demonstrate that OMG, can mimic multiple conditions ranging from nerve palsies to complete ophthalmoplegia hence has to be high index of suspicion of myasthenia gravis when encountering cases of similar presentation

## **Risk Factors for Myopia Questionnaire in The Malay Language Among Primary School Children in Malaysia**

Nur Liyana Bt Ishak, Sharanjeet-Kaur, Saadah Mohad Akhir , Mahadir Ahmad  
Klinik Mata Hospital Kuala Krai, 18000 Kuala Krai, Kelantan

**Objective:** This study aimed to develop a questionnaire in Malay language for the identification of risk factors for myopia among primary school children aged 10 to 12 years old in Malaysia.

**Methodology:** The study commenced in October 2012 till July 2013 in two main phases. The first phase was a pilot study for the construction of questionnaire items by literature review and discussion with the experts. A total of 103 parents of primary school children were randomly selected to test comprehensibility of the preliminary questionnaire. The second phase was the actual study which involved parents of 353 primary school children, 132 were parents whose children were myopes and 221 parents whose children were non-myopes.

**Results:** Discussions with experts in human vision science identified 5 main domain and 71 items for the preliminary questionnaire. A total of 55 items were retained for the actual study phase in view of statistically good correlation ( $r=0.4$  and above). Predictive validity by chi-square test allowed 28 items to be retained because of significant association with myopia ( $p<0.05$ ). The correlation coefficient of test-retest reliability result was considerably good ( $r=0.765$ ) and validity in 2 categories of risk for myopia showed highly significant predictive validity of the questionnaire ( $p=0.000$ ).

**Conclusion:** The developed Malay language questionnaire has good reliability and validity to identify the risk factors for myopia among primary school children in Malaysia.

## **Changes of Cornea Endothelial Cell Morphology After 12 Months Wearing Contact Lens**

Asmah Ahmad, Bariah Mohd Ali, Bashirah Ishak  
Hospital Tuanku Ja'afar Seremban

**Objective:** To evaluate changes in endothelial cell morphology after 12 months of wearing soft contact lenses.

**Methodology:** A total of 48 young myopic Malay adults were included in the study. Silicone hydrogel contact lenses (group A) were fitted on 24 subjects and another 24 were prescribed with glasses (Group B). Endothelial cell morphology was evaluated using specular microscope. Refraction was conducted subjectively and standard contact lens fitting protocol was followed. Data was collected at baseline, 6 months and after 12 months of lens wear.

**Results:** Mean age of subjects was  $21.23 \pm 1.3$  years. Mean refractive error for Group A was  $-2.17 \pm 1.00$ DS. Mean refractive error for group B was  $-2.74 \pm 1.51$ DS. Hexagonality of cells (%) for group A was  $46.65 \pm 10.12$  at baseline, at 6 months was  $45.15 \pm 10.01$  and after 12 months was  $48.40 \pm 9.47$ ;  $p < 0.01$ . Hexagonality of cell (%) for group B was  $49.58 \pm 10.40$  at baseline, at 6 months was  $48.36 \pm 9.60$  and at 12 months was  $49.27 \pm 9.69$  ( $p = 0.56$ ). Corneal Thickness ( $\mu\text{m}$ ) for group A was  $520.33 \pm 0.04$  at baseline, at 6 months was  $525.7 \pm 0.05$  and  $530.00 \pm 0.04$ ;  $p = 0.04$ . Corneal Thickness ( $\mu\text{m}$ ) for group B:  $532.00 \pm 0.04$  at baseline, at 6 months was  $530.00 \pm 0.05$  and after 12 months was  $540.00 \pm 0.04$ ;  $p = 0.14$ .

**Conclusion:** This study found that wearing silicone hydrogel contact lens for 12 months does have an impact on the integrity of the corneal endothelial cells.

## **Tarsal Conjunctival Cells Changes After 12 Months Of Soft Contact Lens Wore**

Asmah Binti Ahmad, Bariah Mohd Ali, Bashirah Ishak

Hospital Tuanku Ja'afar Seremban

**Objective:** This study evaluated changes in the tarsal conjunctival cells of subjects wearing soft hydrogel disposable contact lenses for 12 months, using impression cytology technique.

**Methodology:** A total of 48 young myopic Malay adults were included in the study. Twenty four of them were fitted with silicone hydrogel contact lenses (Group A) and another 24 were prescribed with glasses (Group B). Impression cytology was performed at baseline, at 6 months and after 12 months. The cytological changes were graded according to Saini's Grading Scale.

**Results:** Mean age of subjects was  $21.23 \pm 1.30$  years. Mean ratio nucleus and cytoplasm diameter for Group A at baseline, at 6 months and 12 months were  $0.69 \pm 0.13$ ,  $0.68 \pm 0.12$  and  $0.64 \pm 0.11$  respectively ( $p=0.01$ ). The cytological changes were graded as Grade 1. Mean ratio nucleus and cytoplasm diameter for group B were  $0.69 \pm 0.10$ ,  $0.68 \pm 0.10$  and  $0.67 \pm 0.07$  respectively ( $p=0.03$ ). The cytological changes were also graded as Grade 1.

**Conclusion:** There were more significant difference in cytological changes were noted in subjects with contact lens than without contact lens after 12 months. This study concludes that wearing soft hydrogel contact lenses for 12 months does cause significant changes in the tarsal conjunctival cells. Therefore, patient compliance to contact lens care and careful monitoring is essential to ensure that patients eye in good condition to continue wearing contact lens.

TA 004

## **Profile of Low Vision population attending Low Vision Clinic in Ophthalmology Department of Selayang Hospital**

Nurul Aini Yusoff, Khatijah Mustapha, Rosmawati Uthman

Jabatan Oftalmologi, Hospital Selayang

**Objective:** In Ophthalmology Department of Selayang Hospital, Low Vision (LV) services were operated by optometrists since 2002 and the numbers of patients are on the increasing trend. This study will help to find current low vision population profiles and the results can be used to set up more upgraded low vision rehabilitation services.

**Methodology:** This was a retrospective study of all new patients seen at LV Clinic from January 2009 to December 2014

**Results:** A total of 370 new patients seen during the period were included in the study. The mean age was 47.6 years. The commonest cause of LV were Diabetic Retinopathy (DR)(20%, n=75) followed by Age Related Macula Degeneration (ARMD) (19%, n=72) and Cone-Rod Dystrophies (10%, n=36) for all age group. 80% of the LV patients (n=297) received some form of Low Vision Devices (LVD) to improve their near and/or distance vision. Hand held magnifiers were the most prescribed LVDs (n=131). Statistically, VA for distance and near were significantly improved with the use of LVDs ( $P<0.05$ )

**Conclusion:** Low vision can occur in all age group. The commonest cause of LV was Diabetic Retinopathy. This could be related with increasing number of Diabetes Mellitus (DM) patients. We found that the majority of LV patients' visual acuity can be improved with LVDs. Success in LV rehabilitation depends on availability of various types of LVD that can be offered to patients, knowledge, skills and experience of low vision practitioner / optometrists and also good collaboration with other professions.

## **Comparison of Surgically Induced Astigmatism After Superotemporal And Superonasal Clear Corneal Incisions In Post Phacoemulsification.**

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<sup>3</sup>Ophthalmology Department, Sarawak General Hospital, Kuching, Sarawak, Malaysia.

<sup>4</sup>Department of Public Health, Faculty of Dentistry, International Islamic University Malaysia, Kuantan, Pahang, Malaysia.

**Objective:** To compare the surgically induced astigmatism (SIA) of 2.75mm superotemporal and superonasal clear corneal incisions in post phacoemulsification.

**Methodology:** This comparative cross-sectional study evaluated 60 eyes of 56 Malaysian subjects. Those who attended at least six weeks of postoperative follow-up visit were recruited in this study. The phacoemulsification procedure was performed using sutureless clear corneal incisions of 2.75mm size by three ophthalmic surgeons of International Islamic University Malaysia Eye Specialist Clinic, Kuantan, Pahang, Malaysia. Two surgeons have performed superotemporal incisions on the right eye and superonasal incisions on the left eye, while one surgeon has performed superotemporal incisions on the left eye and superonasal incisions on the right eye. Postoperative keratometry was measured by IOLMaster 700, whereas the preoperative keratometry was retrieved from subjects' medical record. The SIA was calculated through Holladay's method of vector analysis using SIA 2.1 calculator.

**Results:** Total number of subjects in superotemporal and superonasal group were 34 and 26 with mean preoperative astigmatism of  $0.79 \pm 0.47$  D and  $0.74 \pm 0.83$  D respectively, whereas mean postoperative astigmatism were  $1.01 \pm 0.52$  D and  $0.68 \pm 1.04$  D respectively. Vector analysis result showed that mean SIA were  $0.72 \pm 0.45$  D for superotemporal incision and  $0.81 \pm 0.44$  D for superonasal incision groups. However, there was no statistically significant difference between these two incision groups ( $p > 0.05$ ).

**Conclusion:** The selected location of incision did not influence the SIA value in postoperative phacoemulsification among Malaysian eyes.

## **Clinical Characteristics Of Keratoconus Patients Attending Optometry Unit Hospital Teluk Intan**

Puteri Nurhidayah Binti Nordin

Jabatan Oftalmologi Hospital Teluk Intan

**Objective:** To evaluate the presentation and characteristics of patients with keratoconus (KC) attending the Optometry Unit Hospital Teluk Intan, Perak.

**Methodology:** A retrospective study was conducted by reviewing the records of 23 patients (40 eyes) who were diagnosed with KC through the years 2008-2017. Data on age, gender, race, presenting visual acuity, corneal curvature, cornea biomicroscopic findings and management of the patient were analysed.

**Results:** The mean age at referral was  $20.0 \pm 6.20$  years, where 52.17% were females and 47.83% were males. The racial distribution was 56.52% Indian, 39.13% Malays and 4.35% Chinese. The majority were present with both eyes affected (73.91%). The commonest presenting symptoms were blurred or reduced vision (92.50%) and poor visual acuity (VA) with glasses (47.50%). Mean presenting VA was Snellen  $6/24 \pm 0.25$  and mean refraction in spherical equivalent was  $-7.86 \pm 5.16D$ . Munson's sign (77.50%) and Vogt's striae (30.00%) were the most common findings in clinical bio microscopy. In view of severity, 35.00% were stage I, 35.00% stage II, 5.00% stage III and 25.00% stage IV at the time of diagnosis, with mean keratometer reading of  $52.67 \pm 6.79D$ . Majority (47.50%) of the KC patients were prescribed with contact lenses and mean VA with contact lenses was Snellen  $6/7.5 \pm 0.19$ .

**Conclusion:** This study brings out the demographic profile of KC patients in Optometry Unit, Hospital Teluk Intan. This study concludes that there are higher percentages of Indians than other races predominantly males and most presented at younger age average 20.6 years. Prescribing rigid gas permeable contact lenses is the commonest treatment management for better visual outcome.



## **Keratoconus: Case Series Of Hospital Sultanah Aminah, Johor Bahru**

Nabilah Mohd Yussuf, Nor'aini Anuar

Department of Ophthalmology, Hospital Sultanah Aminah

**Objective:** To report 3 cases of keratoconus.

**Methods:** Retrospective, Case series

**Results:**Case 1: A 20-year old lady presented with progressive left eye blurring of vision since 3 years ago. Right eye visual acuity was 6/20 and left eye was 6/60. During anterior segment examination, there are no Munson's Sign and Vogt's striae seen on both eyes. There was positive scissors reflex on both eyes, positive Rizutti Sign on both eyes and mild irregular distortion on both cornea when using keratoscope. Refraction assessment on right eye showed mild myopia with moderate astigmatism while on left eye showed mild myopia with high astigmatism. The corneal curvature on right eye are K1 : 48.70 and K2 : 54.44 with average corneal radius is 6.55 mm while on left eye are K1 : 58.09 and K2 : 70.90 with average corneal radius is 5.28 mm. We diagnosed her as bilateral eye keratoconus with stage 2 on right eye and stage 3 on left eye. Patient done her contact lens Rose K fitting on both eyes and improve her visual acuity to right eye 6/15 and left eye 6/20.

Case 2: A 18-year old guy presented with blurring of vision on right eye since 1 year ago and worsening in last 2 month. Right eye visual acuity was 5/60 and left eye was 6/10. During anterior segment examination, there are Munson's Sign and Vogt's striae seen on right eye. There was positive scissors reflex on right eye. Refraction assessment on right eye showed moderate myopia with moderate astigmatism. The corneal curvature on right eye are K1 : 53.07 and K2 : 61.03 with average corneal radius is 5.95 mm. We diagnosed her as right eye stage 3 keratoconus. Patient done her contact lens Rose K fitting on right eye and improve her visual acuity to 6/9.

Case 3: A 26-year old lady presented with progressive left eye blurring of vision associated with eye pain and itchy since 1 year ago. Right eye visual acuity was 6/7.5 and left eye was 6/60. During anterior segment examination, there are Munson's Sign, Vogt's striae, Flescher Ring and Rizutti's sign seen on left eye. There was mild irregular distortion on left cornea when using keratoscope. Refraction assessment on left eye showed mild hyperopia with moderate astigmatism. The corneal curvature on left eye are K1 : 42.88 and K2 : 48.70 with average corneal radius is 7.40 mm. We diagnosed him as left eye stage 1 keratoconus. Patient done his contact lens Rose K fitting on left eye and improve her visual acuity to 6/10.

**Conclusion:**Keratoconus usually appear in the late teens or late 20s which may progress for 10 – 20 years before slow in the progression. In early stages of keratoconus, the vision can be restore with eyeglasses and soft contact lens but as the disorder progress, rigid gas permeable contact lenses such as Rose K can correct the vision adequately. In our clinic, stage 1 to 3 keratoconus patients will be treating with Rose K to restore the visual acuity.

### **A Case Report Describing Assessment Done In Patient With Advance Stage Keratoconus**

Sharifah Ayuni Binti Ahmad  
Klinik Mata, Hospital Teluk Intan

**Objective:** To report a case of advance to severe keratoconus in an Indian patient fitting with rigid gas permeable (RGP) contact lenses.

**Methodology:** Single patient case report including preliminary examination, contact lens trial fitting and aftercare assessment.

**Results:** A 24-year-old man, presented with gradually decrease in distant vision. Apart from the positive keratoconus signs and symptoms, this patient keratoconus condition was correctly classified following the keratometry and corneal topography examination carried out during the preliminary assessment of the patient's eyes. Based on clinical finding, patient was diagnosed as left eye advance to severe stage keratoconus (steepest corneal curvature ~73.92D). Patient was introduced to usage of RGP contact lens as choice of treatment to delay further keratoconus progress and help patient obtain optimal vision. Contact lens trial fitting assessment was performed to determine the suitable lens design for the patient. Result from trial fitting sessions, patient was dispensed with the most appropriate keratoconus RGP lens parameter from Rose-K2 lens (BONC/5.30/8.90/-18.50; VA 6/6). Frequent clinic schedule on contact lens aftercare assessment carried out for patient to monitor vision and eye-health from time to time.

**Conclusion:** Proper investigations should be carried out to rule out the severity of keratoconus in order to further assist in trial fitting assessment of contact lens. Proper selection of RGP lens design helps provide excellent vision and comfort for keratoconus patient.

## **Association Between Dietary Intake And Optic Nerve Head Parameters In Glaucoma Patients Among Malays**

Noor Asma MN, Rohana J, Norhalwani H, Azhany Y, Liza Sharmini AT  
Pusat Pengajian Sains Perubatan, HUSM

**Introduction:** Intraocular pressure (IOP) is part of modifiable risk factor for management and progression of glaucoma. Identification of other potential modifiable risk factor including dietary intake is important to retard progression of the disease.

**Objective:** To determine the association between dietary intake and optic nerve head (ONH) parameters.

**Method:** A cross-sectional study was conducted in Hospital Universiti Sains Malaysia involving 250 Malay patients with primary open angle glaucoma (POAG) patients and primary angle closure glaucoma (PACG) between December 2015 and February 2017. ONH parameters were measured using Optical Coherence Tomography version 5.0 during recruitment period. Direct face-to-face interview on the dietary recall of food consumption pattern was conducted using food frequency questionnaire (FFQ).

**Result:** 123 males and 127 females with primary glaucoma were recruited with their mean age of 67.4 (SD=9.0) years. There was significant association between caffeinated beverages ( $p=0.046$ ), fruits ( $p=0.003$ ) and green vegetables ( $p<0.001$ ) with rim area. Other than that, fruits also showed an association with average CDR ( $p=0.031$ ) and vertical CDR ( $p=0.032$ ).

**Conclusion:** Fruits, green vegetables and caffeine are associated with rim area, average CDR and vertical CDR.

TA 013

## **A Study On Changes In Corneal & Refractive Astigmatism After Phacoemulsification Surgery On Eyes With Preexisting Astigmatism**

Muhammad Fadzli Bin Yaacob, Ahmad Ziad Bin Suradin

Klinik Mata, Hospital Teluk Intan

**Objective:** To study changes in corneal and refractive astigmatism before and after phacoemulsification surgery in Hospital Teluk Intan.

**Methodology:** A retrospective study was carried out on 21 patients (25 eyes) with preexisting corneal astigmatism of 1.00 Diopters (D) and above who were admitted in Ophthalmology Department, Hospital Teluk Intan and underwent phacoemulsification surgery with implantation of a foldable monofocal intraocular lens (IOL) in 2017. Keratometry measurement were obtained preoperatively and postoperatively. Refractive astigmatism was obtained by subjective refraction.

**Results:** Mean astigmatism preoperatively was found to be  $1.72 \pm 0.53$  D which subsequently increased to  $1.94 \pm 0.79$  D postoperatively. The average of visual outcome after cataract surgery was 6/15 (in Snellen notation) with mean residual refractive astigmatism of  $-1.88 \pm 0.50$  D.

**Conclusion:** The visual outcome of cataract surgery mainly attributed to degree of postoperative astigmatism. In order to meet patient expectations in minimize astigmatism and be free of corrective lenses, any options on reducing corneal astigmatism during cataract surgery can be suggested to the patients.

### **Changes In Total Protein Concentration, Cytokine IL-1Beta With Duration Of Diabetes**

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#### **Objective:**

- 1) To determine the total protein and inflammatory cytokine IL-1 Beta concentration in diabetic tears.
- 2) To investigate the relationship between total protein concentration, IL-1beta concentration and duration of diabetes.
- 3) To investigate relationship between the total protein and IL-1beta with the tears stability.

**Methodology:** Patients were screened to exclude dry eyes by using McMonnies questionnaire. Visual acuity tested followed by refraction, keratometry and tears were collected in right eye using microcapillary tube then phenol red test were done. Total protein concentration analysed using Bradford technique and inflammation cytokine analysed using ELISA technique.

**Results:** TBUT in control group was 4.09s +/- 0.31, 3.70s +/- 1.33 in group 1-5 years followed by 3.42s +/- 1.37 in 6-10 years, 3.36s +/- 0.3 in 11-15 years and 3.30 +/- 0.63 in more than 15 years old diabetes. Phenol red test for control group was 7.56mm +/- 3.69, 7.39mm +/- 3.91, 7.32mm +/- 3.47, 6.34mm +/- 3.09 and 5.40mm +/- 2.07 respectively. Total protein concentration in control group was 6.61mg/ml +/- 1.19, 7.22mg/ml +/- 1.87 in, 7.15mg/ml +/- 2.79, 7.61mg/ml +/- 3.52 in and 8.90mg/ml +/- 1.15 respectively. Cytokine inflammation IL-1Beta concentration in control group was 30.42pg/ml +/- 24.73, 43.10pg/ml +/- 21.24, 43.28pg/ml +/- 10.34, 31.60pg/ml +/- 10.76, 29.23pg/ml +/- 21.75 respectively. Statistical analysis revealed no-significant changes in the concentration of total protein and IL-1Beta between groups ( $p > 0.05$ ). There was a significant changes of TBUT ( $p < 0.05$ ) between the control group and group 1-5 years of diabetes.

**Conclusion:** Total protein increased from control group to more than 15 years group and the IL-1Beta decreased throughout the group probably the inflammation become stable.

## **Ocular Biometry in Unilateral Congenital Cataract At The Sabah Women And Children Hospital**

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Sabah Women and Children Hospital, Kota Kinabalu, Sabah

**Objective:** To compared the axial length and AC-depth in patient with unilateral congenital cataract.

**Methodology:** A descriptive cross-sectional study conducted in eye clinic from January 2014-December 2017.

**Results:** A total of 9 children who were 12 years old and below, with unilateral congenital cataract were identified. These children had undergone unilateral cataract surgery. Mean age of cataract operation was 4.76 (SD  $\pm 3.33$ ) year old. There were 44.4% (N=4) male and 55.6% (N=5) were female. Ethnic groups involved 11.1% (N=1) Melanau and Bisaya, 22.2% (N=2) Dusun, and 55.6% (N=5) Kadazan. Mean axial length in cataractous eye was 22.19mm (SD  $\pm 0.78$ ) and in non-cataractous eye 21.52mm (SD  $\pm 0.45$ ). The axial length was not significantly different between both group (paired t-test,  $p=2.00$ ). Mean AC depth in cataractous and non-cataractous eye was 2.82mm (SD  $\pm 1.23$ ) and 2.62mm (SD  $\pm 1.03$ ) respectively. AC depth also noted no significant different between both group (paired t-test,  $p=0.271$ ).

**Conclusion:** Axial length and AC depth in cataractous eye group was found to be longer and deeper than noncataractous group. Though not statistically significant, it is important to explore this difference as it may affect the timing of the surgery and post operative refractive errors.

## **Tolosa-Hunt Syndrome: 2 Case Reports**

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<sup>1</sup>Eye Department, Hospital Selayang

<sup>1</sup>The Royal Victorian Eye and Ear Hospital

Two cases of Tolosa-Hunt syndrome presented to the Neuro-Ophthalmology Clinic are presented here. The International Headache Classification (IHS) 2004, defined Tolosa-Hunt syndrome as benign episodic orbital pain associated with paralysis of one or more of the third, fourth and sixth cranial nerves that commonly resolves spontaneously but have the potential of relapse and remit. Both patients developed Tolosa-Hunt syndrome with presentation of severe headache and vertical diplopia that resolved with corticosteroid therapy. Cerebral magnetic resonance imaging showed, in both cases, inflammatory tissue in the cavernous sinus. The patients both underwent a wean-off corticosteroid treatment in the management of painful ophthalmoplegia and headache (prednisolone, 50 mg per day). In the first case, the patient experienced similar previous episode, a relapse of two months with complete responsive to the corticosteroid treatment that started off with an upper respiratory tract infection. Both patients had one or more cranial nerve paresis as suggestive of the syndrome. This syndrome requires very detail diagnostic tests as it remains an exclusion diagnosis to a whole range of other common etiologies causing painful ophthalmoplegia, primarily the cavernous sinus syndrome as well as other inflammatory processes. The only method of treatment is corticosteroid therapy which usually improved pain within first 75 hours and resolved of ophthalmoplegia over a period of 6 weeks.

**Prevalence of Corneal Astigmatism In Patients Awaiting Cataract Surgery At Hospital Raja Pemaissuri Bainun, Ipoh**

Ahmad Hazmin Bin Yan, Normala Binti Sami  
Hospital Raja Pemaissuri Bainun, Ipoh

**Objective:** To analyze and quantify the pattern of corneal astigmatism in patients awaiting cataract surgery and to establish the demand for toric IOL in hospital.

**Methodology:** This retrospective study evaluated corneal astigmatism measured by IOL Master in patient awaiting cataract surgery were randomly selected among Malays, Chinese and Indians in 2017.

**Results:** This study analyzed corneal astigmatism in 282 eyes from 165 patients with a mean age of 68.32 years  $\pm$  8.83. They are 98 eyes from 55 Malays patients with mean age of 67.84 years  $\pm$  8.79, 90 eyes from 55 Chinese patients with mean age of 70.29 years  $\pm$  7.58 and 94 eyes from 55 Indians patients with mean age of 66.84 years  $\pm$  9.78. The mean corneal astigmatism is  $-0.96 \pm -0.72$  for Malays,  $-1.39 \pm 1.11$  for Chinese and  $-1.08 \pm 1.02$  for Indians. The corneal astigmatism was  $<-0.25$  DC in 19 eyes (6.7%), between  $-0.25$  DC to  $-1.00$  DC in 149 eyes (52.8%) and  $>-1.00$  DC in 114 eyes (40.4%).

**Conclusion:** Corneal astigmatism of most patients awaiting cataract surgery fell between  $-0.00$  DC to  $-1.00$  DC are 168 (59.6%) patients. This result however is confined to our demographics and might provide useful data for surgeon to analyze the demand for using toric IOL in patients with corneal astigmatism.



TA 018

### **Progressive Keratoconus with Acute Cornea Hydrops**

Norhazwani Binti Azhar  
Hospital Raja Pemaissuri Bainun, Ipoh

**Objective:** To report the case of a 20-years-old female with progressive bilateral keratoconus who has been using rigid contact lenses (RGP) for 2 years and subsequently developed cornea hydrops.

**Methodology:** Snellen chart examination revealed unaided VA of 6/36 in OD and OS. Munson signs, Fleischer ring and Vogt striae were apparent on slit lamp biomicroscopy for the OD. K-readings were measured using Atlas cornea topographer. The steepest K-reading was 75.77D in OD and 84.66D in OS. Patient was first fitted with Rose K RGP of base curve (BC) 5.4mm in OD and BC 5.3 in OS. VA with Rose K on OD: 6/9 and OS: 6/12.

**Results:** After one year of using Rose K, her keratoconus progressed to a point where she no longer able to tolerate the RGP. Patient was then fitted with Rose K XL, BC: 6.1 and 6.0 on OD and OS respectively. VA with Rose K XL was at first 6/9 OD and 6/6 OS. After 4 months both VA and RGP tolerance deteriorated. Cornea hydrops subsequently developed in OS, and patient was offered OS corneal transplant.

**Conclusion:** Keratoconus contact lenses may help improving vision in keratoconus patients, though may not necessarily halt its progression.

**Comparison of The Corneal Power Measurements With Carl Zeiss Atlas 90001396 Topographer, Carl Zeiss IOL Master 500 And Topcon Keratometer**

Rashidah Binti A.Kahar, Normala Binti Sami  
Hospital Raja Pemaissuri Bainun Ipoh

**Objective:** The aim was to compare the corneal curvature and power measured with a corneal topographer, optical biometer and Topcon keratometer.

**Methodology:** In this study, keratometry measurements were obtained in 80 eyes of 40 normal subjects. Manual keratometer (Topcon type, Tokyo Japan), automated keratometry IOL Master 500, Carl Zeiss Meditec Inc.Jena. Germany) and corneal topography (Carl Zeiss Atlas 9000-1396, Germany) were performed for all participants. The Pearson Correlation Paired T-Test were reported to evaluate the agreement between devices.

**Results:** The mean corneal power measurements were  $43.19 \pm 1.21$ ,  $43.41 \pm 1.21$  and  $43.30 \pm 1.19$  with a Topcon Keratometer, IOL Master and Carl Zeiss Atlas 9000-1396 Topographer respectively. The correlations of the Topcon keratometer with Carl Zeiss Atlas 9000-1396 Topographer and IOL Master was 0.958 and 0.969 respectively. The correlations of the Carl Zeiss Atlas 9000-1396 Topographer and IOL Master was 0.959.

**Conclusion:** Although the correlation of Carl Zeiss Atlas 9000-1396 topography, IOL Master and Topcon keratometer in measuring keratometry was high, only IOL Master showed no significant difference with the Topcon keratometer. The IOL Master had the best agreement with Topcon keratometry.

## **Demographic Profile Of Semi Scleral Contact Lens Fitting In Sungai Buloh Hospital**

Erni Fadhilah Norazmi

Jabatan Oftalmologi, Hospital Sungai Buloh

**Objective:** Semi scleral lens has been proven to enhance visual potential for patients with irregular cornea. It can also offer good comfort especially to patients who are unable to tolerate with rigid gas permeable (RGP) contact lens. This study is to report demographic profile and visual outcome for patients who have been fitted with semi scleral contact lens.

**Methodology:** A retrospective study was done from January 2015 to December 2017. All patients who have been fitted with semi scleral contact lens in Sungai Buloh Hospital were included in this study. Re-fitting cases in the same year was excluded and the latest fitting assessments were taken.

**Results:** Two hundred and thirty five patients were included in this study with 65% (153 patients) need this lens for both eyes. The distributions between two eyes are not much different as 154 fitting were done on the RE and 160 on the LE. Demographic profile revealed that patients were Indian (133 patients) followed by Malay (89 patients), Chinese (10 patients) and others (3 patients). Male patients seem to be two times greater than women with 68% from the total patients. Out of 314 eyes, 91% achieved functional acuity 6/12 and better with the most patients come from the age group from 21-30 years old (55%).

**Conclusion:** Semi scleral lens is a new trending in contact lens fitting in Malaysia. It is documented that good vision can be achieved and patient's quality of life can be improved tremendously.

## **Patient Satisfaction Towards Optometric Services At Primary And Tertiary Care Level In Ampang, Malaysia**

Duratul 'Ain Hussin, Peter Hendicott, Andrew Carkeet, Philip Baker  
Jabatan Oftalmologi, Kompleks Pakar & Rawatan Harian, Hospital Kuala Lumpur

**Objective:** To assess patient satisfaction towards optometric services conducted at a primary care level in the Ampang Health Clinic (AHC) and tertiary care level at the Ampang Hospital Ophthalmology Clinic (AHOC).

**Methodology:** Prospective cross-sectional study. All patients administered a translated and validated PSQ-18 Bahasa Malaysia (BM) after they had been examined by an optometrist. PSQ-18 (BM) consists of 18 questions, grouped into: general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent, accessibility and convenience. Responses to each item are given on a 5-point Likert scale ranging from 1 = strongly agree to 5 = strongly disagree. The higher score indicates good satisfaction with the optometric services while lower score indicates the opposite.

**Results:** A total of 81 and 89 participants from the AHOC and AHC respectively participated. The mean age (SD) was 58.7 years (13.1) for AHOC and 59.2 (10.8) years for AHC. At both locations, the proportion of male and females were similar,  $\chi^2 (1, 170) = 0.12, p=0.73$ ). Patients were generally satisfied with the services offered by optometrists at both AHOC and AHC, 4.16 (SD 0.56) and 4.16 (SD 0.61) respectively. High satisfaction was achieved in all subscales except for the financial and accessibilities sub-scales. Age, gender, locations did not significantly adjust the satisfaction outcomes,  $p=0.51, p=0.85$  and  $p=0.09$  respectively.

**Conclusion:** Patients at both care level had similar satisfaction levels in general, technical, interpersonal, financial, time spent and accessibility and convenience of the optometric consultation they underwent.

### **An Uptown Girl with Full Spectrum Contact Lens Experience**

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Hospital Sultanah Bahiyah, Alor Setar

**Objective:** To report a summary of contact lens (CL) history of a Malay girl AA, presented in 2010 at 10 years of age with high axial myopia with astigmatism; Right eye (RE) -17.25/-3.25x10 (6/15), Axial length (AXL) (Lenstar) 30.69mm and Left eye (LE) -15.00/-3.75x180 (6/15), AXL 30.12mm.

**Methodology:** Case note review retrospective and prospectively on AA s' Refractive Error (RE), Best Corrected Visual Acuity (BCVA), CL parameters and aftercare findings.

**Results:** AA started to wear soft CL (NuToric/8.8/14.00/-13.50/-3.25x35) with BCVA 6/6-2 on the RE and (NuToric/8.8/14.00/-13.00/-3.25x160) with BCVA 6/6-1 on the LE. She developed neovascularization on BE due to prolonged CL wear and later shifted to Silicon Hydrogel (SiHY) Toric. As the BCVA was optimized, AA has used them more than 12 hours daily. She had few episodes of corneal abrasion and subsequently developed Superficial Punctate Keratitis (SPK) that reduces her Tear Break Up Time (TBUT). To accommodate dryness, we introduced Bitoric Rigid Gas Permeable (RGP) in 2014 to optimized BCVA (6/7.5 monocularly). Her current CL parameter is RE (Boston EO/8.0/9.2/-16.25DS) with BCVA of 6/9 and LE (BiToric XP/7.6/9.2/-14.00/-2.50x180) with BCVA of 6/9.

**Conclusion:** Different series of contact lens parameters are proven to optimized vision in this very high myopia with astigmatism case and it also applied to a school-aged patient.

## **Vision Screening Accuracy and Prevalence of Refractive Error among Referred Pre-School Children from Amblyopia and Visual Impairment Screening (AVIS) Program in Sabah**

Muhassanah Aliah Baharum, Arifah Nur Yahya  
Hospital Queen Elizabeth Kota Kinabalu

**Objective:** To determine the accuracy of vision screening by comparing visual acuity (VA) measured at kindergartens and at the eye clinics. To determine the prevalence of refractive error among children who were referred by the program

**Methodology:** A retrospective study was conducted at Hospital Queen Elizabeth, Hospital Duchess of Kent, Hospital Keningau and Hospital Tawau between May to September 2017. All records of referred children from the vision screening with uncorrected VA 6/12 (0.3 LogMAR) or worse were selected. Myopia was defined as spherical equivalent (SE)  $\geq -0.50$ DS, hyperopia SE  $\geq +2.00$ DS and astigmatism  $\geq 0.75$ DC

**Results:** Of 559 children screened, 158(28.26%) children failed visual screening. Of these, only 60 (37.97%) children were found to have VA  $\leq 6/12$ , comprised of 28 (46.7%) boys and 32 (53.3%) girls. The mean age of the children was 5.47 0.57 years. The data was tabulated for 96 eyes and analyzed. Mean VA at kindergartens was 0.40 0.17 LogMAR and mean VA at the eye clinics was 0.30 0.26 LogMAR. There was a significant difference between VA screened at kindergartens and VA at the eye clinics ( $t=4.15$   $p < 0.05$ ). Mean spherical equivalent was -0.25DS 0.19. Astigmatism ( $\geq 0.75$ DC) was the commonest type of refractive error found with a prevalence of 40.8% followed with myopia and hyperopia at 11.3% and 2.1%

**Conclusion:** The VA measured at the eye clinics was better than at the kindergartens. This might due to illumination inconsistency during screenings, hence astigmatism was mostly found. Therefore, continuous quality assurance for AVIS program to improve accuracy in VA test is needed

### **Use of Prosthetic Contact Lens in Microcornea with Corneal Opacity**

Salihah binti Ismail, Nor Hidayah binti Yahaya, Suzzana binti Abdul Karim, Rohaiza binti Abd Hamid  
Jabatan Oftalmologi, Hospital Taiping

**Objective:** To highlight the use of prosthetic contact lens in case of LE microcornea for cosmetic purpose.

**Methodology:** Case report

**Results:** 18 years old female presented with the history of LE microcornea with corneal opacity. She never consult with any eye doctor and never seek for other intervention. She was complaining of loss of LE vision since birth. She denied any trauma and infection. She was treated with prosthetic contact lens which improved her appearance and increase her self esteem. She was comfortable and happy with the prosthetic contact lens and follow up visits scheduled at 1 week, 1 month, 3 months, and 6 months after dispensing with no adverse.

**Conclusion:** Prosthetic contact lens helps in improving social life and confident level.

## **Importance Of Proper And Correct Evaluation In Contact Lens Fitting Assessment: A Case Report**

Nor Hidayah Yahaya

Ophthalmology Clinic Hospital Taiping

**Objective:** To highlight the importance of proper and correct evaluation in keratoconus contact lens fitting assessment

**Methodology:** Case report

**Results:** 25 years old lady working as a Quality control officer presented with history of blurring of vision, difficulty performing his work and need to change glasses frequently. On examination, retinoscopy showed scissor reflex with high astigmatism in both eyes and corneal topography done. She was diagnosed with bilateral Keratoconus. Keratoconus contact lens fitting assessment is done on BE. The optimum fitting was determined from the 3 point touch fluoresceine pattern obtained on BE and then Igel Conus were prescribed for BE (6.8 bc /8.6 dia on RE and 6.6 bc /8.6 dia on LE). After 7 month, patient complaint the LE contact lens frequently 'popped out'. On examination, the LE contact lens fluorescein pattern shows central bearing with wide edge lift and lid attachment. Second trial fitting on LE done with Rose K trial lens. Optimum fitting was determined by acceptable central pooling. The contact lens prescribed for LE was Rose K/ 6.1 bc/9.2 dia/edge lift increased 2steps. Patient was comfortable and satisfied with the lens which improved her job performance on her follow up visit scheduled at 1 week and 1 month after dispensing with no adverse effect.

**Conclusion:** Proper fitted RGP contact lens is important for maximum comfort and prevent complication.



### **Semi Scleral Contact Lenses: Case Series**

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Jabatan Oftalmologi, Hospital Seri Manjung, Perak

**Objective:** To evaluate the effectiveness of semi scleral contact lens (SScL) in previously failed standard rigid gas permeable (RGP) lenses in keratoconus patients.

**Methodology:** Five patients (9 eyes) with keratoconus were presented for SScL fitting due to unsatisfactory fitting of standard keratoconus RGP lenses. They were fitted with Rose K2 XL lenses to correct their irregular astigmatism. Corrected visual acuity (VA) and spherical equivalent (SE) were evaluated prior and after the Rose K2 XL dispensing.

**Results:** All five patients (9 eyes) were successfully fitted with Rose K2 XL lenses. The best spectaclescorrected VA ranged from counting finger (CF) to 6/24. On dispensing visit, average corrected VA improved to a range of 6/12 to 6/6. The SE decreased from -16.31DS with spectacle to +0.22DS with Rose K2 XL.

**Conclusion:** SScL can be successfully used in keratoconus patients for which initial RGP failed. It provides optimal visual quality and comfort in these patients.

### **A Case Report of Allergic Conjunctivitis With Nummular Keratitis**

Saidah Nafisah Binti Jaafar  
Hospital Batu Gajah

**Objective:** Corneal ulcer or keratitis is defined by a corneal infiltrate associated with an overlying epithelial defect which generally occurs when the normal eye's natural resistance has been compromised to infection. This is a case report of a patient with Allergic Conjunctivitis and Nummular Keratitis resulted from foreign body ocular trauma.

**Methodology:** A 16 year-old Malay male patient with no known medical illness or allergy presented with history of foreign body entered his left eye while riding his motorbike four weeks ago. Instead of seeking immediate medical treatment, patient just rubbed his left eye to get rid of the foreign body. Patient reported left eye pain, redness, photophobia and tearing and he just applied artificial tears bought from pharmacy because he thought the irritations will resolved eventually. Patient claimed, the irritations did subside after few days but he noticed his left eye vision was poor and also noticed 'white patch' at the centre area of his left eye. Eye assessments showed right eye vision was 6/6 and left eye vision was 6/18 with pinhole 6/12, RAPD were negative, bilateral eyes had papillae on palpebral conjunctiva with grade II redness, left eye also showed scattered sub-epithelial and deep stromal scar covering the visual axis.

**Results:** Bilateral eyes Allergic Conjunctivitis and left eye Nummular Keratitis. Patient was given G. Cyclosporin 0.05% QID for left eye and G. Pataday OD for bilateral eyes.

**Conclusion:** Prompt treatment is needed in case of foreign body ocular trauma as delay in treatment may cause serious ocular morbidity.

### **Fitting Special RGP Lens After CXL Treatment**

Azalia Razali, Muhammad Iqbal Basri, Crestiani Laisin, Chiang Wai Seng  
Hospital Duchess of Kent Sandakan, Sabah

**Objective:** Corneal cross-linking (CXL) is considered effective in halting progression of keratoconus by strengthening the cornea. This induces flattening of the corneal curvature along with improvements in visual acuity. In many cases, vision correction is still required post operatively and rigid gas permeable (RGP) lenses often provide better vision than spectacles. The aim of this work is to report the use of special RGP lens in a patient having keratoconus who had CXL treatment.

**Methodology:** Case report

**Results:** CPL, an 18-year-old Chinese lady was diagnosed with advanced keratoconus on the right eye. Her unaided vision was 3/60 with average corneal curvature 59.25D. Three months after diagnosis, she underwent corneal cross-linking at a private hospital. Subsequently, two years after corneal crosslinking, her average corneal curvature had reduced to 57.75D. A series of contact lens trial fitting with different Rose K2 diameter and design revealed that Rose K2 Nipple Cone provided satisfactory fit and vision on the right eye of this patient. Her vision improved to 6/9 with optimum centration and peripheral fit.

**Conclusion:** Fitting advanced keratoconus post CXL treatment with special RGP lens resulted in a successful management of the cornea.

TA 030

**Retrospective study on the outcomes of cataract surgery in Pusat Pembedahan Katarak Majlis Agama Islam Wilayah Persekutuan -Hospital Selayang (PPKM-HS)**

Samsia Lattang, Durratu Ain, Farahwahidah Hashim, Rohaliza Enet Ghani

**Objective:** To evaluate the Outcome Visual Acuity and post operation refraction status of cataract surgery in PPKM-HS.

**Methodology:** A hospital-based, retrospective study was done on 11330 eyes underwent cataract surgery (unilateral and bilateral) at PPKM-HS from January 2013 to December 2017. Outcome data were collected from the National Eye Data-based (NED) database for demographic, visual acuity (VA) and refractive error post-operatively . Pre operative evaluation included were visual (VA) acuity using Smart Chart and refractive assessment. Data was also collected for types of surgery performed.

**Results:** Total 8215 eyes for operation in PPKM-HS presented 95.5% VA 6/18 and less. Malay 43%, Chinese 38.2%, Indian 16% and others 2.8%. Mean age patient presented was 65 years old. There were 7315 eyes were examined in PPKM-HS at 6th week post operatively. The post-operative presenting VA through refraction shows good outcome with 95.0% (VA 6/12 and better), 2.0% (VA 6/12 to 6/18), 2.4% (VA 6/18 to 6/60), 0.3% (VA 6/60 to 3/60) and 0.4% (less VA 3/60). Mean Spherical Equivalent (SE) was -0.40 D with 89.8% of the patients were within range -1.00 to +1.00 DS.

**Conclusion:** This study shows that good outcomes can be achieved with cataract surgery and intraocular lens implantation in PPKM-HS.

## **Prevalence and The Types Of Astigmatism Among School Children Referred By Unit Kesihatan Sekolah (UKS)**

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Jabatan Pediatrik Oftalmologi, Hospital Wanita Dan Kanak-Kanak, Kota Kinabalu

**Objective:** To determine the prevalence and the types of astigmatism among school children referred by Unit Kesihatan Sekolah (UKS)

**Methodology:** A retrospective study conducted in Sabah Women & Children hospital from May to December 2017.

**Results:** From a total of 210 referral, 148 students with uncorrected visual acuity worse than 6/6 and astigmatism more than -0.75 diopter cylinder (DC) were analyzed for the study. Mean age of the students were  $7.97 \pm 2.034$  years. The prevalence of astigmatism was 78.4% with mean astigmatism  $-1.697 \pm 0.985$ . 85.3% seen in group 1 (5 to 8 years old) and 14.7% in group 2 (9 to 12 years old). Of those with astigmatism, 59 (50.9%) were male and 57 (49.1%) were female. 25 (21.6%) astigmatism was seen in one eyes and 91 (78.4%) in both eye. However, there was no significant difference between astigmatism between the two eyes ( $p=0.229$ ). With-the-rule astigmatism was seen in 102 eyes (87.9%), mild astigmatism (-0.75 DC to -1.75 DC) was the most common and was present in 66 eyes (56.9%) and 40 eyes (34.5%) had compound myopic astigmatism.

**Conclusion:** This study showed a high prevalence of astigmatism among school children with refractive error. Thus, we emphasize the need of effective and regular school screening programmes in the future. This will ensure better quality of life, grades and prevent amblyopia

### **Diffuse Superficial Punctuate Epithelial Staining In Semi-scleral Contact Lens Wear**

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Hospital Bukit Mertajam

**Objective:** Introduction: Diffuse superficial punctuate epithelial staining is a term that refers to the appearance of generalized tissue disruption of the corneal epithelium. It is revealed with the aid of dyes such as fluorescein and illumination of cobalt blue light.

**Methodology:** Case report: A 20 year old male was diagnosed with keratoconus and prescribed with semi-scleral contact lens. After eight months of contact lens wear, mild superficial punctuate staining was noted during the after care. Patient was advised to off the contact lens for temporary. He was prescribed with non-preservative artificial tears (ATPF) and Genteal by the medical doctor. The staining was resolved and patients continue wearing the contact lens. After three months, the staining was recurred associated with conjunctiva redness. He reduced his wearing time to 4 hours instead of 10 hours but the corneal staining still worsens. Then he was prescribed with Duratears, Optichrome and ATPF.

**Results:** Discussion: Patient was treated as dry eye syndrome and allergic conjunctivitis. In this case, the lens fitted on the right eye was quite flat. The contact lens need to be steepened to avoid the cornea from apical bearing. Patient need to use ATPF to filled in the semi-scleral contact lens to rule out solution toxicity. Conclusion:

**Conclusion:** Diffuse superficial punctuate epithelial staining is not uncommon with semi-scleral lenses and often causes no long term issues. However, examiner should exclude poor contact lens fitting or solution toxicity and patients need to be closely monitored.

### **Profile Of Keratoconus Patients In Ministry Of Health Hospitals In Malaysia**

Nurul Najiha Binti Mohammed, Khairi Norhayati Binti Minhaj, Nurfazliha Binti Mustapha, Nik Nawwar Nik Mohamad Fahmi, Norhafizah Abd Razak, Sajidah Sulong, Rachel Clarice Linggam, Siti Aminah Abu Yazid  
Hospital Sungai Buloh

**Objective:** Prevalence of keratoconus is higher among Asians, but very limited data of keratoconus in Malaysia. The purpose of this study is to determine the demographic profile of keratoconus patients seen in Ministry of Health (MOH) hospitals in Malaysia.

**Methodology:** This is a prospective observational study. A total 345374 new patients attending Ophthalmology Clinic in MOH hospitals from February 2015 until July 2016 were observed. All newly diagnosed keratoconus were included in this study.

**Results:** 387 patients were diagnosed as keratoconus and the prevalence was 0.1%. The mean age was  $22.98 \pm 7.54$  years. 56.6% (n=219) patients were male and 43.4% (n=168) female. Majority of patients were Bumiputera (53.3%), Indian (40.8%), followed by Chinese (5.4%) and others (0.5%). Mean keratometry reading was  $51.83 \pm 7.73D$  (range 27.38D to 83.25D). Out of 669 keratoconic eyes, 43.9% (n=294) were classified as moderate, 26.9% (n=180) severe, 14.6% (n=98) mild and 10.2% (n=68) advanced. 72.9% eyes (n=282) were bilateral keratoconus. Clinical characteristics showed 68.6% (n=459) presented with Munson's sign, 34.1% (n=228) Vogt's striae, 14.6% (n=99) Fleischer ring and 13.4% (n=90) cornea scar. 84.5% patient complaint of blurred vision, 43.41% eye itchiness and 41.08% eye rubbing. Systematical review revealed, 23.5% had problems of allergy, 16.8% and 13.7% suffered from asthma and sinusitis. A few patients had allergy rhinitis (9.6%) and atopic dermatitis/eczema (5.4%).

**Conclusion:** Prevalence of keratoconus in Malaysia considered high and manifest at young age. Dominant gender was male and this condition more common among Bumiputeras and Indians. This study provides initial information regarding keratoconus in MOH Hospitals in Malaysia.

### **The Effectiveness of RGP lens**

Mohd Shahril Anwar Bin Mohd Puzi  
Hospital Raja Permaisuri Bainun, Ipoh

**Objective:** Rigid gas permeable lenses has been reported and marketed as a lens that provides better visual acuity, comfort and suitable for keratoconus patients. This study is to document the success of fitting RGP in term of improving visual acuity and tolerance to it.

**Methodology:** A retrospective medical record review of 40 patients who had worn rigid permeable gas lenses (RGP) was performed. All patients had some form of corneal pathology and were fitted in Optometry Clinic Hospital Raja Permaisuri Bainun between 2014 to march 2018. RGP were fit to 30 eyes of patients with keratoconus and 24 eyes of patient with high astigmatism.

**Results:** From 54 eyes, 19 eyes (35%) visual acuity improve between 6/7.5 to 6/6 on snellen chart. The same percentage (35%) with eyes that improve up to 6/9 visual acuity on snellen chart, resulting 70.37% (38/54eyes) visual acuity improve to 6/9 and better. The rest of another 29.63% (16/54eyes) had visual acuity in the range of 6/18 to 6/12. In terms of tolerance, only 5.5% (3/54 eyes) experienced contact lens intolerance with RGP during fitting session.

**Conclusion:** As a conclusion, RGP lenses maintains clinically acceptable visual acuity for patients with keratoconus and irregular cornea surfaces. Most patient with keratoconus or high astigmatism in Optometry Clinic Hospital Raja Permaisuri Bainun can be successfully fit with RGP lenses for visual rehabilitation.



### **Causes And Impacts Of Corneal Ulcer Related To Contact Lens In HSAJB**

Fadhliah Binti Husin Nor'aini Anuar  
Hospital Sultanah Aminah, Johor Bahru

**Objective:** To highlight the risk factors of contact lens (CL) mishandling that may lead to corneal ulcers in order to increase public awareness of CL.

**Methodology:** This retrospective analysis was performed on the data of all patients hospitalized with corneal ulcer related to CL in Hospital Sultanah Aminah Johor Bahru (HSAJB) from 2014 to 2016. The patients were referred to Optometry Clinic for CL consultation and all data regarding history of wearing CL and visual status were collected using clinical structured form.

**Results:** 30 patients with contact lens-related corneal ulcers were referred to Optometry Clinic for consultations for the past 3 years. The mean age was  $24.9 \pm 6.6$  and 83% were female. All cases were soft CL wearer including clear and cosmetic. There were only 33% had less than 8 hours wearing time per day. About 40% bought the CL from variable sources other than optical shops such as online stores and friends and 53.3% claimed they didn't get any proper consultations before wearing CL. 53.3% also admitted they had fallen asleep in their CL. Ironically, 80% of visual status were low vision (VA 6/18 to 3/60) and blindness (VA < 3/60) before treatment but only 6.7% vision improved to normal range while others remained in the visually impaired group.

**Conclusion:** This study revealed that contact lens-related corneal ulcer is a considerable sight-threatening. The risk factors due to lack of knowledge and awareness may cause corneal ulcer. Hence, public awareness should be promoted at greater level to warn the CL wearers against possible visual threatening from improper CL wearing

## **Practice And Knowledge Level Of Contact Lens Wear And Care Among Contact Lens Wearer Of College Students**

Nora Norzareen binti Abdul Razak, Nor'Aini binti Anuar, Siti Nurul Ashiken Chahar Nordin, Norhayati Minhaj  
Hospital Sultanah Aminah Johor Bahru

**Objective:** The objective of this study is to inculcate the public awareness on contact lens wear and care among college students.

**Methodology:** A total of 113 contact lens wearer of students in Kolej Vokasional Azizah (ERT) Johor Bahru participated in this cross sectional study. A questionnaire survey was divided into two sets which consisted of 16 questions related on wear and care and another 6 questions regarding on knowledge about contact lens.

**Results:** All participants were female, 112 of them (99.1%) were Malay and only 1 (0.9%) Indian. Of the contact lens wearer, 92.9% being prescribed with soft contact lens. A significant percentage of 74.3% of the students wearing contact lens for cosmetic purposes. Out of 54.0% of student claimed that they purchased contact lens from optometrist or optician while 46.0% bought via online, fashion boutique and friends. Although 82.3% students use multipurpose solution, cleaner or disinfectant, there are still another 13.3% of them use only saline to clean their lenses. For soaking purposes, only 60.2% students use proper disinfectant solution. Surprisingly, only 5.3% students had regular follow up with contact lenses practitioners. From the sets of knowledge questions, the mean level of knowledge is found to be moderate, which is 59.1%.

**Conclusion:** This study revealed that the level of knowledge and practice of contact lens among college students are still at an alarming level. Hence, there is a need to increase the public awareness by conducting more contact lens education program towards maintaining a proper contact lens wear and care especially among youth.

TA 039

**Post Operative Astigmatism In First Cataract Surgery With Monofocal Toric Iol In Hospital Sultan Abdul Halim, Sg Petani**

Ainayanty Binti Adnan

Hospital Sultan Abdul Halim, Sg Petani, Kedah

**Objective:** To evaluate astigmatism changes after cataract surgery using monofocal toric IOL

**Methodology:** Single patient case report including preliminary examination and post operative assessment

**Results:** Post refraction astigmatism reduced to -0.25DCx85

**Conclusion:** This surgery is among the first premium IOL which has been operated in Hospital Sultan Abdul Halim, Sg Petani. Refractive astigmatism decreased after the surgery and patient manage to get good unaided vision. However toric IOL only reduced the refractive astigmatism but did not affect the cornea astigmatism. Precise measurement or K-reading, biometry, accurate marking and perfect IOL implantation are important in order to achieve patient satisfaction.

### **Contact Lens Awareness Survey In Hospital Selayang**

Halijahton Binti Abdol Rahim, Majidah Binti Zainal Abidin, Nur Hafizah Binti Mokhtar, Duratul' Ain Hussin  
Klinik Mata Aras 3 Hospital Selayang Batu Caves Selangor

**Objective:** To determine the awareness and compliance among contact lens user.

**Methodology:** A cross-sectional structured questionnaire in English were given to contact lens wearers during Contact Lens Awareness Program. Data were analyzed using SPSS version 20.

**Results:** A total of 31 respondents with a mean age of 31 years old had experience wearing contact lens. Majority of contact lens wearers were female (93.5%), predominantly Malays (77.4%). They were mostly working in the private sector (35.7%), followed by government sector (32.1%), students (28.6%) and others (3.6%). About 21 (80.8%) wore contact lens more than 1 year. Most of them chose soft contact lens (80%) from various brands. Monthly disposable lens were the most preferred wearing modality (87.5%). Fourteen (46.7%) of wearers used contact lens for cosmetic purpose, 8 (26.7%) to correct refractive error and 7 (23.3 %) for both reasons. Majority of the respondents bought their contact lens from eye care practitioners (66.7%). In terms of wearing time, 16 (53.3%) had worn contact lens for 8-12 hours, while 13 (43.3%) worn contact lens less than 8 hours daily. Alarmingly, 10 (32.3%) went for eye examination only when they had eye problems. However, contradictory result were seen when routine examination and never sought eye checkup were both reported by equal respondents of 9 (29%) .

**Conclusion:** More education is needed to increase the awareness among the contact lens wearers to get proper eye examination and the importance of adhering to aftercare visits.

## **Fresnel Prism In Traumatic Partial Third Nerve Palsy; A Case Report**

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Jabatan Oftalmologi, Hospital Queen Elizabeth, Kota Kinabalu

**Objective:** To report a case of traumatic partial third nerve palsy.

**Methodology:** Case report.

**Results:** A 29-year-old Malay teacher reported diplopia following severe head injury due to motor vehicle accident (MVA) in 2014. She was intubated and treated conservatively for her right temporal contusion and intracranial bleed (ICB). A year later, she seeks for ophthalmologist advice to overcome her squint and double vision.

Eye examination showed a right-sided ptosis with a “down-and-out” deviation and 6mm dilated pupil. She experienced binocular diplopia due to limited extraocular-muscle movement. Computed tomography (CT) of orbit revealed no muscle entrapment. Prism cover test (PCT) at distance showed 35 prism diopter ( $\Delta$ ) right exotropia with 63 $\Delta$  right hypotropia. PCT at near showed 40 $\Delta$  right exotropia with 50 $\Delta$  right hypotropia. She was diagnosed with traumatic partial third nerve palsy and two conservative squint surgeries were performed.

Post operatively, patient still complaint of diplopia. However, Hirschberg showed symmetrical. PCT at distance showed 12 $\Delta$  right exotropia with 12 $\Delta$  right hypotropia. PCT at near showed 18 $\Delta$  right exotropia with 6 $\Delta$  right hypotropia. Due to incomitant squint deviation, patient experienced torsional diplopia. She was fitted with Fresnel prism of 15 prism based at 50 degree. She claimed diplopia still present, but the separation image became closer. She was advised to focus on left eye image for her comfort.

**Conclusion:** Managing third nerve palsy is very challenging. Fortunately, post-operative findings revealed satisfactory outcome and Fresnel prism prescribed helps to nearly manifest patient's diplopia. These improve patient's self-esteem, thus encourage her to continue teaching and her daily routines.

### **Demographic Profile Of Cornea Ectasia Patients In Eye Clinic Hospital Tuanku Ja'afar Seremban**

Nurazillah Ismail, Sharifah Suzaini Syed Kuning, Asmah Ahmad, Nor Aini Hanafi  
Hospital Tuanku Ja'afar Seremban

**Objective:** To understand the demographic profile of corneal ectasia patients visiting Eye Clinic Hospital Tuanku Ja'afar Seremban.

**Methodology:** Clinical record of patients diagnosed as having cornea ectasia from January 2014 to December 2017 were reviewed retrospectively. Data were collected on gender, race, age of first visit, age of onset and occupation.

**Results:** Total of 45 patients were diagnosed with cornea ectasia; 42 (93.30%) were keratoconus and 3 (6.70%) were pellucid marginal degeneration. Malay were 17 (37.80%) people; 12 (70.60%) male and 5 (29.40%) female. Indian were 28 (62.20%) people; 18 (64.30%) male and 10 (35.70%) female. Malay mean age of first visit was  $24.00 \pm 6.33$  years;  $22.92 \pm 6.74$  years of male and  $26.60 \pm 4.83$  years of female. Malay mean age onset was  $23.00 \pm 5.41$  years;  $21.92 \pm 5.89$  years of male and  $25.60 \pm 3.13$  years of female. Indian mean age of first visit was  $22.32 \pm 4.72$  years;  $21.67 \pm 4.73$  years of male and  $23.50 \pm 4.72$  years of female. Indian mean age of onset  $20.64 \pm 4.47$  years;  $20.61 \pm 4.33$  years of male and  $20.70 \pm 4.97$  years of female. Occupation of Malay and Indian male as student were 41.70% and 40.40% respectively. Occupation of Malay female 40.00% work as administrator and 20.00% of Indian female work as student, factory worker and unemployed.

**Conclusion:** Demographic profile of cornea ectasia patients in Hospital Tuanku Ja'afar show that Indian male was higher risk early onset of cornea ectasia which similar with other studies reported before.

TA 043

### **Toric Periphery (TP) Advanced Fitting Option In Keratoconus Patient**

Noorsuriawati Mohd Said, Ajmal Hazizan  
Klinik Mata, Hospital Sungai Buloh

**Objective:** To report case on Rigid Gas Permeable (RGP) lens using toric periphery (TP) in keratoconus patient.

**Methodology:** This is a case review of a 25 year old female Malay, right eye diagnosed keratoconus who attended Contact Lens Clinic in Hospital Sungai Buloh. Twice trial fittings using RGP Rose K2 lens was attempted. First trial fitting parameter was Rose K2/ 6.7/ 9.2/ -3.00/ increase edge lift 1 step. During the final fitting, Rose K2/ 6.7/ 9.6/ -7.00/ standard edge lift was tried and TP was planned.

**Results:** First trial fitting resulted in unacceptable fitting. Final fitting was acceptable as it showed central pooling, thin edge lift nasal and temporal but wide edge lift at superior and inferior with edge stand off inferiorly. However TP advanced fitting option was required. Final parameter to be ordered for this patient was Rose K2/ 6.7/ 9.6/ -6.00/ standard edge lift with TP 1.2. During delivery assessment, fluorescent pattern showed central pooling, acceptable edge lift but wide edge lift was found at 11.30 and 5.30 o'clock. However no edge stand off noted.

**Conclusion:** TP on RGP lens is helpful in eliminating edge stand off inferiorly and increase edge lift at 3 and 9 o'clock

### **Semi Scleral Lens Is The Last Option In Case With Advance Keratoconus**

Tengku Azlina binti Tengku Loding, Nurul Najiha binti Mohammed  
Khairi  
Jabatan Oftalmologi, Hospital Sungai Buloh

**Objective:** Keratoconus patients must attend Contact Lens Clinic in Hospital Sungai Buloh setting to monitor improvement in visual acuity (VA). This report to show semi scleral lens is the last option before penetrating keratoplasty (PK) is decided

**Methodology:** A series of fitting assessment with semi scleral Rose K2 XL was done to the patient.

**Results:** Patient was referred from Hospital Sultan Haji Ahmad Shah for PK. Ophthalmologist planned for rigid gas permeable (RGP) before decision of PK. She was advised to try semi scleral lens as her RGP no longer provide satisfaction due to frequent dislocation of lens. Her habitual visual acuity (VA) was 1/60 in right eye (RE) and 6/60 in left eye (LE). Subjective refraction finding was RE -8.00/-4.00x90, VA 6/45 and LE -22.00/-4.00x90, VA 6/45. Corneal topography revealed advance keratoconus as indicated by K- reading of RE 69.8D/77.6D and LE 68.7D/69.7D. Presentation of vogt striae and superficial scarring on cornea detected during slit lamp examination. She was fitted with RE Rose K2 XL/6.0/14.4/-16.75D and LE Rose K2 XL/5.8/13.0/-17.25D. All fitting assessments were acceptable, except there was a mild lifting up at superior edge of the lenses. However, due to steep base curve, no modification can be done to resolve the problem. Best corrected VA with contact lens was 6/6 for both eyes. Patient satisfied with current VA.

**Conclusion:** Rose K2 XL showed an excellent fitting and gained significant improvement in vision for advance keratoconus. It can maximize VA and improving quality of life. Furthermore, it can delay the need for PK.



## **Profiles And Outcomes Of Cataract Surgery In High Myopic Patients Attending A Cataract Surgery Centre**

Farah Wahidah binti Hashim, Ng Chong Kiat, Mokhlisoh Mohamed Apandi  
Pusat Pembedahan Katarak MAIWP-Hospital Selayang

**Objective:** To describe the profiles and outcomes of cataract surgery in high myopic patients

**Methodology:** A retrospective, hospital-based study. The electronic medical records of patients who underwent cataract surgery at PPKM-HS between January 2013 and January 2018 were reviewed. Data were extracted for subjects with high myopia (Sph  $>-4.00D$ ) and axial length (AXL  $\geq 26.0mm$ ). Both A-scan ultrasound methods (immersion and applanation) and partial optical coherence device used to measure AXL were included. Postoperative Visual Acuity (VA) data were extracted and the proportion of patients who achieved final (VA) of 6/12 measured with Snellen Chart was determined in all eyes.

**Results:** Data were obtained for 341 eyes. They were 136 females (39.88%) and 205 males (60.12%). The mean age was  $60.1 \pm 9.4$  years (range 19-79). The mean AXL was  $27.34 \pm 1.36mm$  (range 26-34.30). Presenting distance VA were mild or no visual impairment (VI) (15.8%); moderate VI (18.8%); severe VI (34.3%) and blindness (31.1%). There were 16.7%, 0.6% and 52.2% of eyes measured using immersion technique, applanation and partial optical coherence device respectively. There were only 321 subjects (94.1%) with post operative refraction findings. Of these, 90.7% of all eyes with post operative data achieved a final corrected VA of 6/12 or better at discharge.

**Conclusion:** Majority of high myopic patients achieved good post operative outcome. Poor visual outcome was associated with preoperative ocular co-morbidity

### **Corneal Ulcer Related To Contact Lens; Reckless Leads To Blindness**

Hasyimah Binti Hamdan

Jabatan Oftalmologi Hospital Tuanku Fauziah, Kangar

**Objective:** To report a case in a patient with left eye Pseudomonas Corneal Ulcer that related to contact lens

**Methodology:** A case report

**Results:** Extended-wear coloured soft contact lenses for myopic correction are becoming a more frequent alternative to spectacles. The risk of corneal ulceration with their use exists. In our patient, a 20-yearold woman, a severe Pseudomonas aeruginosa corneal ulcer developed on the left eye after the use of extended-wear coloured contact lenses for myopia for three days during camping. Pseudomonas aeruginosa was cultured not only from the corneal ulcer but also from the contact lens itself and the contact lens solutions, suggesting that the patient had been non compliant with care procedures. Delay in treatment by ophthalmologist and the used of Dexamethasone eye drop that she buy from over the counter pharmacy would worsening the ulcer. Non compliant to cleaning regime, wearing regime and lack of hygiene are common caused of corneal ulcer. Therefore, teenaged and young adults should be especially educated on proper contact lens procedures and the potential for complications.

**Conclusion:** This case of Pseudomonas corneal ulcer, patient's education on proper contact lens procedures and contact lens hygiene can be the most effective management that will hopefully decrease the incidence of this potentially devastating infection and prevented vision loss

### **Reverse Asymmetrical Lens Design (ACT) In Rose KXL for Patient with Pterygium**

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Jabatan Oftalmologi, Hospital Sungai Buloh

**Objective:** The aim of the study is to review the effectiveness of reverse ACT in modification of semiscleral lens (RoseK2 XL) in patient with keratoconus and pterygium.

**Methodology:** This is a case review of 28 years old female Malay who was diagnosed with bilateral keratoconus. Upon examination, right eye noted of having pterygium and central cornea scar which contributed to deteriorate visual acuity. In order to improve vision, contact lens had being fitted on the right eye while the left eye was left untreated as unaided vision was good (visual acuity LE= 6/6). Several contact lens trials conducted on this patient and the best fitting achieved with RoseK2 XL.

**Results:** During contact lens delivery assessment, fluorescein assessment showed the fitting was good, however after 20 minutes, patient started to complaint of pain at pterygium area (2-4 o'clock). The slit lamp examination showed conjunctival hyperemic especially at nasal area. The sign and symptom might be due to excessive pressure creates by the contact lens over the pterygium. To rectify the problem, reverse ACT technique was applied at the pterygium area (2-4 o'clock). Patient no longer complaint of pain at the pterygium area and no conjunctival hyperemic noted with the reorder modified lens.

**Conclusion:** Reverse ACT is a special technique that being used when the fitting lens is too tight in certain quadrant. With this technique, the contact lens can be lifted up to minimize the effect of over pressure such as in pterygium cases.

## **Intraocular Lens Power Calculation Using IOLMaster 700 and Various Formulas in Short, Normal and Long Axial Length**

Nur Hafiza Ab Rahim, Eryanti Md Omar, Nurul Hafizah Mohd Norizan, Hazliyati Hassan, Jalia Jumadi, Nurulfaiz Rahmat, Nor Emalina Suleiman, Nazura Selamat, Raja Norliza Raja Omar.

**Objective:** To evaluate the predictability of intraocular lens (IOL) power calculations using the IOLMaster 700 with three different formulas (SRK/T, Hoffer Q and Haigis) in short, normal and long axial length (AL).

**Methodology:** This study was a retrospective comparative analysis which included 111 eyes with an axial length ranges from 21.34 mm to 29.64 mm. All patients underwent uneventful phacoemulsification with IOL implantation from July 2016 to February 2018 at Hospital Melaka. Preoperative AL and keratometric power were measured by the IOLMaster and power of the implanted IOL was determined using SRK/T, Hoffer Q and Haigis formulas. Six weeks postoperative refractions were done by experienced optometrists and were compared with the predicted postoperative power. The mean absolute error (MAE) was defined as the average of the absolute value of the difference between actual and predicted spherical equivalence of postoperative refractive error.

**Result:** For short axial length, the Hoffer Q formula had the smallest MAE ( $0.33 \pm 0.35$ ) followed by SRK/T ( $0.34 \pm 0.26$ ) and Haigis ( $0.41 \pm 0.25$ ). For medium axial length, the SRK/T formula had statistically smallest MAE ( $0.25 \pm 0.19$ ) followed by Haigis ( $0.36 \pm 0.26$ ) and Hoffer Q ( $0.37 \pm 0.26$ ). For long axial length group, Haigis and SRK/T had the lower MAE which were  $0.31 \pm 0.25$  and  $0.31 \pm 0.17$  respectively compared to Hoffer Q ( $0.42 \pm 0.38$ ).

**Conclusion:** Hoffer Q and SRK/T formula provide more accurate post-operative result in short and medium AL respectively. In long AL, both SRK/T and Haigis formula able to offer excellent post-operative outcome as predicted.

### **A Predicament Of Treatment: Can Contact Lenses Be Used Simultaneously With Glaucoma Eye Drops?**

Siti Syahidah Binti Sobri, Noor Suriani Mohamad, Siti Aminah Abu Yazid, Arni Rehny Bin Ahmad Rakhli  
Hospital Sultanah Bahiyah, Alor Setar

**Objective:** This case report reviews the management of Mr. Z, a 46 year old Malay male obtained bilateral angle recession glaucoma resulting from recent sport related injury on the RE, and post LE trauma when he was 18 years old.

**Methodology:** He was referred for RE phacoemulsification and IOL implant after Trans Pars Plana Vitrectomy. Unfortunately, the IOL subluxated inferiorly and high IOP. The IOL was then removed and Glaucoma Drainage Device was implanted into the RE to control IOP. In addition, Timolol 0.5% and Alphagan 0.15% eye drops were prescribed twice daily for both eyes.

**Results:** Post operation refractive error was +11.50DS(VA=6/9) and -4.50/-1.00X180(VA=6/6) for RE and LE respectively. During follow up visits, the patient complained of RE blurred with his old glasses -6.00DS(VA=CF @ 2ft) and -4.50/-1.00x180(VA=6/6) for RE and LE respectively. To optimize binocular vision function, an Aphakic Silicon Hydrogel contact lens (UltraVision, UK) was prescribed for his RE, topped up with a pair of myopic glasses for the LE. This specialty lens provides good functional vision with VA of 6/9 on the RE. Since he is undergoing glaucoma treatment, he needs to apply them at least 30 minutes before wearing the contact lens in the morning.

**Conclusion:** In conclusion, contact lens wear was proven to be pivotal in visual rehabilitation as it markedly enhanced visual acuity. However, careful consideration should be given to contact lens material, suitable modalities, preservative free glaucoma drops, drug absorption rates and aftercare schedules, for glaucoma patients who opt to wear contact lenses.

### **Case Report Of Marfan Syndrome In View Of Optometrist In A Family**

Azlina Abdullah, Asmah Ahad, Nor Aini Hanafi  
Hospital Tuanku Jaafar Seremban

**Objective:** Marfan syndrome is a heritable disorder that involving connective tissue. One of the features found in Marfan syndrome is ocular complications. Ectopia lentis is a strong clinical finding to diagnose Marfan Syndrome. We reported a family with Marfan Syndrome that effected a mother and her 2 daughter's.

**Methodology:** Data collected from Ophthalmology Department patient card, Hospital Tuanku Jaafar Seremban

**Results:** A mother and her two daughters presented to our clinic with high myopia and high astigmatism. Ocular finding also consist of ectopia lentis that cause of lens subluxated superiortemporally and nasally. Retina was thinning but no sign of glaucoma. The mother v ision can be corrected until 6/9 with contact lenses. However, her 2 daughter eyes were amblyopia, eventhough been prescribed with contact lenses the best v ision been corrected for first daughter was RE 6/36, LE 1/60 and 2nd daughter's best corrected v ision was RE 6/9; LE 1/60. Both of them were under patching exercise but not compliance.

**Conclusion:** We concluded that, early eye screening is compulsory for the strong family history of Marfan Syndrome to avoid amblyopia.

## **Refractive Changes In Aphakic Eyes Treated With Contact Lenses: A Case Study**

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**Introduction:** Infantile cataract develops during the first 18 months of life and is treated by removing crystalline lens which subsequently resulting aphakia. To correct this, implantation of intraocular lens (IOL) is done. However, due to some circumstances some eyes are left as aphakia and contact lenses (CL) are the best form of corrections. It is well documented that the refractive status of children changes constantly with age. This case is to determine the changes of refractive in aphakic eyes treated with CL.

**Case Description:** A 4 years old Malay boy with underlying Lowe syndrome, global developmental delay & proximal tubulopathy. He came to Ophthalmology clinic at the age of 4 months and was diagnosed for having bilateral infantile cataract. Lens aspiration was done on both eyes and IOLs were not implanted as patient has small capsular bags. At 2 weeks postoperative, refraction findings revealed right eye (RE) +27.00DS (VA: follow light) and left eye (LE) +27.00DS (VA: follow light). CL were prescribed with parameter : RE Soflex SiHi /7.0/13.00 / +27.00 DS and LE Soflex SiHi / 7.1/ 13.00/ +27.00 DS. Patient showed good compliance to wearing CL and visual stimulation was being carried out. At 34 months postoperative, the refraction findings are RE +15.50 DS (VA: 6/48) and LE +16.00 (VA 6/48).

**Discussion And Conclusion:** There are myopia shift of 11.5D in RE and 11D in LE within 34 months postoperative. This is due to normal growth of the eye. This information will be helpful in managing aphakic infants.