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# Remaking of the trabeculectomy: New concepts for an old horse

**Iqbal Ike K. Ahmed, Canada**

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Co-medical Director, TLC Mississauga

## ABSTRACT

This lecture focuses on the subconjunctival filtering surgery and the modern advancements. Trabeculectomy has been the mainstay of glaucoma filtering surgery, and utilizing the subconjunctival outflow pathway proves to still be the king of IOP-lowering. Surgical modifications of trabeculectomy, wound healing modulation and post-operative interventions have improved the predictability and safety of the procedure. Tube-plate shunts have emerged as an important role of high risk cases. Novel micro-stenting devices are the latest procedures to further enhance the safety, recovery and efficiency of the filtering surgery.

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# Management of post-operative glaucoma surgical complications

**Iqbal Ike K. Ahmed, Canada**

Assistant and clinical Professor, University of Toronto and Utah.  
Director, Glaucoma and Advanced Anterior Segment Surgery (GAASS) Fellowship, University of Toronto.  
Research director, Kensington Eye Institute, University of Toronto.  
Division Head, Ophthalmology, Trillium Health Partners, Mississauga, Ontario  
Medical Director, Prism Eye Institute, Mississauga, Ontario  
Co-medical Director, TLC Mississauga

## ABSTRACT

Glaucoma surgery is known to have a higher post-operative intervention and complication rate. Methods of managing failure and complications will be reviewed. An algorithm for post-operative management of blebs, tubes and MIGS will be presented. Videos will be used to show techniques of managing complications.

# The surgical revolution in glaucoma

**Iqbal Ike K. Ahmed, Canada**

Assistant and clinical Professor, University of Toronto and Utah.  
Director, Glaucoma and Advanced Anterior Segment Surgery (GAASS) Fellowship, University of Toronto.  
Research director, Kensington Eye Institute, University of Toronto.  
Division Head, Ophthalmology, Trillium Health Partners, Mississauga, Ontario  
Medical Director, Prism Eye Institute, Mississauga, Ontario  
Co-medical Director, TLC Mississauga

## **ABSTRACT**

Over the last 150+ years, glaucoma surgery has undergone an evolution in techniques. Indications, approaches, risk and post-operative recovery have changed considerably. In the last decade, a new genre of procedures has aimed to reduce the morbidity of the traditional filtering approaches, thus challenging the traditional treatment paradigm. The rationale, development, early results and potential future of the MIGS and related procedures will be presented.

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# Choices of IOL implantation following complicated cataract surgery

**Chee Soon Phaik, Singapore**

Professor of Ophthalmology, Singapore National Eye Centre (SNEC)  
Head and Senior Consultant, Ocular Inflammation and Immunology Department, SNEC

## **ABSTRACT**

Following complicated cataract surgery, capsular support is frequently compromised. If the anterior capsule is intact, the intraocular lens implant (IOL) can be inserted into the sulcus and secured by posterior optic capture. However, if the anterior capsular support is also compromised, the IOL should be anchored to the iris or sclera. The least invasive technique involves retropupillary placement and suturing of the haptics of a 3 piece IOL to the iris using 9/0 or 10/0 polypropylene, and Siepser Sliding Knot or McCanel suture. In patients where the surgical time has to be brief, a concave forward iris claw IOL may be enclaved onto the posterior surface of the iris. However, if the iris is damaged, it should first repair and if the damage is severe, iris fixation of the IOL should be avoided. Scleral fixation results in a stable IOL and is recommended especially in post-vitrectomy eyes. Goretex 7/0 or Polypropylene 9/0 should be used for suture fixation via a Hoffman pocket or partial thickness scleral flaps. Alternatively, intrascleral haptic fixation may be used whereby the haptics of the 3 piece IOL are retrieved through sclerostomies diametrically opposite to ensure IOL centration. Sclerostomies can be made through partial thickness sclera after raising the flap, or through partial thickness scleral incisions. A needle tract for the haptic is created adjacent to the sclerostomy and the haptic is tucked into the tract. The scleral and conjunctival incisions are sutured or glued. Regardless of the fixation technique, an adequate dissociated vitrectomy with triamcinolone acetonide must be done. In addition, a peripheral iridectomy is important to prevent pupil block and reduce the risk of optic capture. The surgeon should only attempt to fixate a dislocated IOL that he can safely retrieve, with the help of microforceps or one that is in the iris plane.

# Management of intra-operative complications: Posterior capsule rupture and zonulysis

## ABSTRACT

Posterior capsule rupture (PCR) most frequently occurs during phacoemulsification of the nucleus but may follow excessive hydrodissection, during aspiration of cortex or after intraocular lens insertion. It is important to recognize PCR early to avoid aspirating vitreous and dropping the lens fragment. Immediate management involves injecting dispersive ophthalmic viscoelastic device (OVD) into the anterior chamber (AC) to stabilize the AC (and lens fragment), preventing PCR enlargement and vitreous herniation. The fragments are next mobilised into the OVD trap. Remaining nuclear fragments are supported by inserting a 3 piece IOL into the AC, sulcus or capsular bag depending on the visibility of residual capsular support, nuclear size and amount of vitreous in the AC. Alternatively, a trimmed Sheet's glide inserted through a widened incision under the nuclear fragments can provide adequate support. Nuclear fragments are then removed by phacoemulsification using reduced parameters. The infusion should be raised to compensate for the wound leakage as appropriate. Presenting vitreous should be dealt with using dissociated anterior or posterior vitrectomy. Visualization should be enhanced by using diluted triamcinolone acetonide. The posterior cutter should be inserted through a snugly fitting limbal incision to maintain AC stability. If zonulysis is noticed during surgery, a capsule tension ring (CTR) should be inserted to expand the capsular bag if the capsulorhexis is intact. The CTR may be manually inserted or injected, from the area of intact to non-intact zonules and should be as late as possible, but as soon as it is required. If the IOL is decentred or tilted, a capsular tension segment or similar device should be sutured to the sclera to provide the needed support.

## Managing refractive surprises after premium lenses implantation

**Choong Yean Yaw, Malaysia**

Cornea and Refractive Surgeon, Consultant Ophthalmic Surgeon, KPJ Centre For Sight

### **ABSTRACT**

Patients who choose premium lenses for their cataract surgery are usually more demanding on the visual outcomes. Advancement in equipments and biometry formulations has significantly reduce the incidence of unacceptable postoperative refractive errors. Despite all the precautions measurement, refractive surprises do happen occasionally. Options to rectify refractive surprises post cataract surgery include: Laser refractive surgery (PRK vs Lasik); piggy bag IOL; LRI; IOL exchange.

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## Managing complications in paediatric cataract surgery

**Jamalia Rahmat, Malaysia**

Consultant General and Paediatric Ophthalmologist, Hospital Kuala Lumpur, Kementerian Kesihatan Malaysia

### **ABSTRACT**

Cataract surgery in young children poses different challenges and potential complications compared to adults. Paediatric patients are at an increased risk of problems due to multiple factors- smaller eyes, increased capsular elasticity, lower scleral rigidity, increased vitreous pressure and unstable anterior chamber. They also have higher rate of posterior capsule opacification and increased inflammation. Complications can arise during surgery and also throughout the immediate and extended postoperative periods. Achieving a successful result depends on adhering to pre, intra and post-operative considerations and their proper management.



# Managing complications of orbital surgery

**Radzlian Bin Othman, Malaysia**

Consultant Oculoplastic Surgeon, Hospital Serdang, Kementerian Kesihatan Malaysia

## **ABSTRACT**

Orbital surgery includes amongst others surgery for orbital tumours, orbital fractures, orbital TED decompression and exenteration. Orbital surgery is carried out in a confined space filled with many structures including the close approximation of neurovascular structures. Complications in orbital surgery can lead to disastrous consequences. Complications include but are not limited to the following; blindness, decrease vision, motility disorder, diplopia, haemorrhage, CSF leak, infection and globe malposition. Prevention of these complications start preoperatively. The surgeon must have a comprehensive knowledge of the orbital anatomy. Medical conditions such as hypertension and diabetes need to be controlled. Blood thinners need to be stopped prior to surgery. Diagnostic imaging may be necessary to obtain further details on the orbital problem, its relationship to surrounding structures as well as for planning the correct surgical approach. Magnification using loupe or microscope allow better visualisation of the procedure and so does good illumination. The surgeon has to pay intense attention to surgical details. Tissues need to be retracted adequately to allow good visualisation. However handling and manipulation of tissues need to be done gently. Intraorbital dissection should be done with blunt instruments. Meticulous haemostasis is achieved intraoperatively by cautery, positioning of the patient, hypotensive anaesthesia and other means. Orbital haemorrhage can lead to a rise in the intraorbital pressure which in turn can compromise the vascular flow. Constant monitoring of pupillary reactions and intraocular pressure during surgery are important. Blindness follows globe or optic nerve injury caused by direct trauma, excessive traction or vascular compromise. A patient who has severe orbital pain post operatively associated with decreased visual acuity, proptosis, ecchymosis and RAPD should be evaluated immediately for possible orbital haemorrhage and managed urgently.

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## Complications of eyelid surgeries – management and prevention

**Kamala Devi, Malaysia**

Consultant oculoplastic and orbital surgeon, International Specialist Eye Centre Kuala Lumpur, Malaysia

## **ABSTRACT**

The common eyelid procedures are correction of ptosis, ectropion, entropion, excision of 'lumps', blepharoplasties and reconstructions of eyelids following trauma or tumour excisions. No surgeries are free of complications. However to avoid them, one must have knowledge of the possible eyelid surgical complications and be prepared to avoid them. Common complications are superficial ecchymosis and haematoma which are most often temporary which will resolve subsequently over the first few weeks. Permanent abnormalities will be an undercorrection, overcorrection, which will cause visual disturbances, exposure keratitis, dry eye, epiphora and scar abnormalities. These complications will ultimately need secondary intervention. The aim is to give the best aesthetic and functional results and this can be achieved by a thorough pre-operative assessment, careful surgical planning and post-operative management.

# Managing complications of evisceration and enucleation

**Othmaliza Othman, Malaysia**

Senior Consultant Ophthalmologist (Oculoplastic) at the Department of Ophthalmology, Faculty of Medicine, Universiti Kebangsaan Malaysia (UKM)

## **ABSTRACT**

Enucleation and evisceration of the eye are few common procedures performed by many ophthalmologists. However, the complications are often under-recognized and thus the appropriate treatment to overcome undesired sequelae is not fully delivered. This lecture will address the possible issues that may arise from these procedures and the impacts on patients' lives. It will also highlight into ways of prevention and discussion of newer techniques.

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# Rescuing the failing filter

**Mimiwati bt Zahari, Malaysia**

Associate Professor of Ophthalmology (Glaucoma) and Senior Consultant Ophthalmologist at the Department of Ophthalmology, Faculty of Medicine, Universiti Malaya (UM), Malaysia

## **ABSTRACT**

Bleb scarring is the most common cause of a failed trabeculectomy. And despite the use of mitomycin-C and 5-FU, it is not easy to escape from the proliferation of fibroblasts in the Tenon's capsule that leads to a failed filter. For a successful rescue, careful evaluation is needed in order to manage the failing blebs correctly. Firstly, it is important that we are able to recognize what a failing filter looks like. An ideal functional bleb should be diffuse, with good height, relatively avascular, with microcysts. A failing filter will have a change in bleb appearance towards the opposite features, depending on the stage of healing. Next, it is important to identify the predominant cause of the bleb failure. More commonly it is due to factors external to the ostium such as tight sutures, subconjunctival fibrosis or Tenon's cyst rather than internal blockage from iris blood clot or fibrin. As the process of scarring is dynamic and its likelihood increases with time, the type of intervention carried out will depend on the phase of wound healing. Intensifying existing topical treatment with steroids and 5-FU injections can be carried out as a first step, and manipulation of the bleb to release tight sutures or break early scar tissue can be performed at a later stage. Sutures may be released, undergo laser suturelysis or surgically cut. Encapsulated bleb may undergo needling with use of anti-fibrotics. The methods of bleb revision and its success rates will be detailed in the talk.

# When tubes go wrong: Management of complications of glaucoma drainage device

**Norshamsiah Md Din, Malaysia**

Associate Professor of Ophthalmology (Glaucoma), Head and Senior Consultant Ophthalmologist at the Department of Ophthalmology, Faculty of Medicine, Universiti Kebangsaan Malaysia (UKM), Malaysia

## **ABSTRACT**

Glaucoma drainage devices such as the Ahmed Valve and the Baerveldt tube implant has become a popular choice of treatment for recalcitrant glaucoma like neovascular glaucoma and uveitic glaucoma. When the chances of trabeculectomy failure are high, tubes are an option. While many have found that the success rate is higher with tube than trabeculectomy, it is not without its own problems. Intra-operative and post-operative complications of glaucoma drainage devices and ways to manage them will be discussed. Precautions to take to minimize complications of tube implantation will also be explained.

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# Ensuring success in glaucoma surgery in paediatrics

**Sunder Ramasamy, Malaysia**

Consultant Ophthalmologist, Thomson Hospital Kota Damansara

## **ABSTRACT**

The surgical management of infants, toddlers and children with paediatric glaucomas are very challenging. The response to surgery in them can be unpredictable with increased risk of failure. There is often a need for corrective or repeat surgeries. A successful surgical outcome requires adequate preoperative assessment and counselling to the parents. Proper surgical techniques with emphasis on being repeatable are imperative. Good postoperative care by doctors, paramedic and parents are very important in ensuring reduced post-operative inflammation and infection. Various aspects that help with a successful outcome in trabeculectomy, trabeculotomy, combination trabeculectomy and trabeculotomy, glaucoma drainage devices and cycloablative procedures will be elucidated.

# Intravitreal injections (IVI)

**Ranjana Mathur, Singapore**

Senior Consultant Ophthalmologist, Medical Retina Department, Singapore National Eye Centre, Adjunct Assistant Professor, Duke-NUS Medical School

## **ABSTRACT**

Progressive expansion of clinical applications of IVI in our clinical practice has resulted in a huge revolution in the way we manage retinal diseases. We cannot deny that frequency of IVIs has reached an exponential growth over the last few years. Updated practical guidelines for IVI procedures based on latest evidence have been published, in order to reduce possible risks and complications. It is imperative that certain minimum standards are adhered to however there are considerable variations in techniques as well as controversies associated with post-IVI management. This lecture will address some of the complications and controversies of IVIs.

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# Dropped nucleus - Posterior approach

**Mae-Lynn Catherine Bastion, Malaysia**

Professor of Ophthalmology (Vitreoretina) and Senior Consultant Ophthalmologist at the Department of Ophthalmology, Faculty of Medicine, Universiti Kebangsaan Malaysia (UKM) and UKM Specialist Centre

## **ABSTRACT**

Who can deny that sinking feeling when a nuclear fragment drops from view during cataract surgery? Dropped nucleus is defined as the loss of all or part of the lens as it migrates from the anterior segment to the posterior segment. This well-known complication of cataract surgery occurs roughly at a rate of 2 or 3 per 1000 phacoemulsification cases. The rate can be higher when surgeons are training. All is not lost as the dropped nucleus can be removed from the posterior segment with a pars planar vitrectomy (PPV) combined with fragmentation when nuclear material is dense. Removal is necessary to prevent complications of glaucoma, prolonged intraocular inflammation and retinal detachment. Anterior segment surgeons are able to assist through early referral and prompt administration of anti-inflammatory, antibiotic and anti-glaucoma medications. Complete removal of dropped nucleus or nuclear fragments by vitreoretinal surgeons requires a good view which is facilitated by delayed insertion of intraocular lens to the time of vitrectomy or subsequently and by reducing trauma to the cornea during the initial surgery. Posterior surgery is facilitated by wide-field viewing systems and care paid to even small lens remnants that may be near the ora serrata as these can induce prolonged inflammation. Controversies surrounding the posterior procedure such as timing and indications for surgery, usage of adjuvants and IOL placement still exist.

# Endophthalmitis - medical and surgical management

**Haslina Mohd Ali, Malaysia**

Head of Department Ophthalmology Clinic, Hospital Sultanah Bahiyah, Alor Setar, Kedah, Kementerian Kesihatan Malaysia

## **ABSTRACT**

Endophthalmitis is accumulation of pus in the eye or ocular cavity and it is divided into endogenous (usually happens in an immune compromised individual) and exogenous (usually related to trauma and postocular surgery). Endophthalmitis a blinding condition that if diagnosed and treated optimally, at the onset, could save vision. This talk is going to focus more on post-operative endophthalmitis. The Endophthalmitis Vitrectomy Study (EVS) has been the guide to managing acute post cataract surgery ocular infection for more than 20 years. But there have been modifications in approach to treatment and this includes first-line antibiotics and indication for surgical intervention. Surgical approach has been more dynamic and has proven to decrease complications and restore vision.

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# Complications of diabetic vitrectomy

**Mushawiahti Mustapha, Malaysia**

Senior Consultant Ophthalmologist (Vitreoretina) at the Department of Ophthalmology, Faculty of Medicine, Universiti Kebangsaan Malaysia (UKM)

## **ABSTRACT**

Diabetic retinopathy is a chronic, sight-threatening disease of the retinal microvasculature associated with prolonged uncontrolled hyperglycemia. Prognosis of surgical treatment such as vitrectomy with or without intraocular anti-vascular endothelial growth factor (anti-VEGF) depends mostly on the duration and structures involved. Advanced diabetic eye disease renders variable and sometimes unpredictable visual outcome. Better surgical instrument, viewing system and the emergence of adjuvant therapy potentially reduce the intraoperative and postoperative complication. Anatomical outcome has improved with less complications. But visual outcome is still a challenge as the recovery post-surgery does not only rely on the ocular factors but also influenced by the patient's systemic condition. We will be discussing on the potential issues from the surgery involving diabetic-related complications.

# Managing complications of scleral buckling surgery

**Barkeh Hanim Jumaat, Malaysia**

Consultant Ophthalmologist and Vitreoretinal Surgeon at the International Specialist Eye Centre (ISEC), Kuala Lumpur visiting Consultant Ophthalmologist and Vitreoretinal Surgeon at Hospital PUSRAWI and Prince Court Medical Centre in Kuala Lumpur

## **ABSTRACT**

Scleral buckling is an effective surgical procedure to treat rhegmatogenous retinal detachment. It involves the principle of detection of retinal breaks, sealing of retinal breaks with cryotherapy and supporting the breaks. The breaks are supported by buckle element, which is sutured radially or circumferentially on to the sclera. Subretinal fluid may be drained in certain circumstances, such as in bullous retinal detachment. In this presentation, complications associated with scleral buckling surgery will be highlighted. These include intraoperative complications such as complications associated with suturing of sclera, drainage of subretinal fluid, cryotherapy and injection of gas. While postoperative complications include exposure, infection and migration of the buckle.

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# Dealing with recurrent pterygium

**Mohtar Ibrahim, Malaysia**

Senior Lecturer and Consultant Ophthalmologist in HUSM, Universiti Sains Malaysia, Kubang Kerian, Kelantan

## **ABSTRACT**

Pterygium is a common condition; easily diagnosed but difficult to treat in the sense that it commonly recurred after excision. Even in the best of hands and the goal-standard treatment (conjunctival auto-graft) the recurrence rate can be as high as 16.7% according to Matthias Fuest, Jodhbir S. Mehta & Minas T. Coroneo (2017). Dealing with recurrent pterygium is even more challenging. Few factors need to be considered and it has to be tailored to individual patient. Factors like level of visual acuity, degree of aggressiveness of the recurrence, multiple recurrence, limbal deficiency and presence of other complications such as symblepharon, restriction of ocular motility need to be factored with regards to the modalities of treatment. It may be ranged from conservative management to combination of various procedures like usage of various adjuvant therapies, limbal autograft and release of symblepharon with or without grafts. It is not an easy and straight-forward decision and may need multipronged approaches.

# Management of persistent epithelial defect

**Siti Nor Roha Daman Huri, Malaysia**

Cornea Specialist and Consultant Ophthalmologist Sungai Buloh Hospital, Kementerian Kesihatan Malaysia

## **ABSTRACT**

Persistent epithelial defects (PED) are considered one of the most common early postoperative complications after penetrating keratoplasty (PK). They are defined as, epithelial defects that do not heal within the first 10 to 14 days with conventional treatment. Healthy corneal epithelium provides an optical interface and protects the eye against infection and structural damage to deeper tissues. Any compromise in the integrity of the corneal epithelium after PK acts as a precursor of infection and escalates the damage to the graft. Managing PED in a post graft can be challenging to any corneal surgeon. Various causes of PED will be elaborated in this lecture. Medical and surgical modalities will also be discussed here. Aggressive treatment of PED is mandatory to avoid complications which is critical for survival of the graft.

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# Management of epithelial down growth

**Aida Zairani Mohd Zahidin, Malaysia**

Senior Consultant Ophthalmologist (Cornea) at the Department of Ophthalmology, Hospital UKM, Faculty of Medicine, Universiti Kebangsaan Malaysia (UKM)

## **ABSTRACT**

Epithelial downgrowth (EDG) is an uncommon and serious complication of intraocular surgery and trauma. Treatment of EDG is controversial. Irradiation was first used to treat EDG in the early part of 20th century but it had a poor success rate. More recent treatment options include surgical scraping, peeling, alcohol treatment, cryotherapy and wide excision of epithelial proliferation. However these treatment modalities have been invasive and damaging to the anatomy of the eye. More recently, treatment of EDG with endoscopic cyclophotocoagulation (ECP) and the use of intracameral 5-FU has been discussed and provides advantages over traditional treatment options. For more invasive lesions, excision of the limbal fistula with cornea lamellar patch graft or penetrating keratoplasty may be a more definitive solution. Decision on best treatment for the patient largely depends on the cause and severity of the lesion. This presentation will highlight two cases which were successfully treated.

# Management of non-clearing graft after transplant (PK/DSAEK/DALK)

**Wan Haslina Wan Abdul Halim, Malaysia**

Senior Consultant Ophthalmologist (Cornea) at the Department of Ophthalmology, Hospital UKM, Faculty of Medicine, Universiti Kebangsaan Malaysia (UKM)

## **ABSTRACT**

Post corneal transplant oedema can be a worrying event for both corneal surgeons and general ophthalmologists. It can result from the surgery itself, a pre-existing condition as well as complications that can occur much later. What are the possible causes and how to identify and address them? This lecture will summarise the causes and briefly discuss on its management.



## A four-year retrospective study on outcomes of iris-claw anterior chamber intraocular

**Chan Chin Sern, Chua Szu May, Siti Zakiah Md Khair, Nor Fadzillah Abd Jalil, Norshamsiah Md Din, Raja Norliza Raja Omar**

Hospital Melaka, Kementerian Kesehatan Malaysia  
Pusat Perubatan Universiti Kebangsaan Malaysia, Universiti Kebangsaan Malaysia

### ABSTRACT

**Objective:** To evaluate the outcome and complications of ARTISAN (iris-claw anterior chamber intraocular lens) and scleral fixated (SF-IOL) lens implantation. **Method:** A retrospective analysis was done in 29 eyes of 43 patients which had ARTISAN lens implantation (58%) and 21 eyes with SF-IOL (42%), in Melaka Hospital from January 2014 till January 2018. **Results:** The mean operating time with ARTISAN lens implantation (63±26.9 minutes) was shorter compared to SF-IOL (86 ± 38.1 minutes). There were no statistically significant difference in mean operating time between the two groups of secondary implantation [ARTISAN: 55.3±28.2 minutes; SF-IOL: 69.7±17.7 minutes (p = 0.213)]. Conversely in combination surgery, implantation of ARTISAN lens showed a significantly shorter duration compared to SF-IOL. [ARTISAN: 65.1±26.9 minutes; SF-IOL: 104.1±46.8 minutes (p=0.03)]. In addition, ARTISAN lens demonstrated a 65.5% improvement of best corrected visual acuity (BCVA) in ≥ 2 lines as compared to SF-IOL (35%). There were no significant differences in post-operative BCVA between the two groups (p= 0.51). Complications in both the groups are comparable: (retinal detachment: 4.7% in SF-IOL and 3.4% in the ARTISAN group, secondary glaucoma: 9.5% in SF-IOL and 6.9% in the ARTISAN group). Also, SF-IOL demonstrated a 14.28% incidence of post-operative epiretinal membrane (ERM) and 4.7% post-operative cystoid macular oedema (CMO). However, this is not present in the ARTISAN group. **Conclusion:** In complicated cataract surgeries without adequate capsular support, both ARTISAN and SF-IOL are both comparatively equal in terms of visual outcomes and complication rates. Nonetheless, ARTISAN lens implantation might shorten the duration of operation.

### KEY WORDS:

*Iris-claw IOL, scleral fixated IOL, visual acuity, ARTISAN*

## A study on treatment outcome of micropulse transcleral cyclophototherapy

**Liu Chee Chung**

University Malaya

### ABSTRACT

**Objective:** To evaluate the efficacy of MPTCP performed in Hospital Kuala Lumpur. Outcome measured were IOP reduction and number of IOP lowering medications at 1 week, 1 month, 3 months, 6 months and 1 year. **Method:** Prospective interventional case series of glaucoma patients treated with MPTCP between January and June 2017. **Results:** Total of 24 patients (34 eyes) were treated. The mean age was 54.1 years old, with male 67% and female 33%. 15 eyes (44%) underwent prior filtering surgery which failed. 12 eyes were POAG, 8 were PACG, 14 were secondary glaucoma. 79.4% (n=27) of eyes successfully achieved IOP reduction at end of study. Mean pre-treatment IOP were 30.5mmHg. IOP reduction was 36.2% at 1-week post-treatment, 31.9% at 1 month, and 12.2% at 3 months. IOP reduction was observed to be more stable and sustainable in POAG group, while PACG and Secondary glaucoma has lesser reduction. Mean number of IOP lowering medications were reduced by 0.29, from 3.13 before MPTCP to mean of 2.88 at final follow up. Study limitations were non-comparative study, small sample size, heterogeneity in types of glaucoma. **Conclusion:** MPTCP is safe, minimally invasive and repeatable, which short-term results shows effective IOP lowering in treatment of all types of glaucoma. However, there was no significant reduction in number of IOP lowering medications.

### KEY WORDS:

*Glaucoma, micropulse cyclotherapy, intraocular pressure*

# Achieving post cataract surgery refractive accuracy in a teaching-based hospital

**Nur Hafizah Abdullah, Norfadzillah Abdul Jalil, Raja Norliza Raja Omar, Nor Fadhilah Mohamad**

University Malaya

## ABSTRACT

**Objective:** To evaluate the difference between the target and post-operative refractive outcome after phacoemulsification and intraocular lens implantation surgery in a teaching-based hospital. **Method:** A retrospective study was conducted from January through December 2017 hospital Melaka, which also serves as a postgraduate teaching ophthalmology institution. The main outcome measure was percentage of cases achieving a postoperative spherical equivalent within 1.00 diopter (D) of target spherical equivalent. **Results:** We performed 2253 phacoemulsification surgeries within the specific period and 1740 (77.2%) fulfilled the criteria to be included in this study. Of these, 1617 (92.9%) achieved within  $\pm 1.00D$  by 8- to 12-weeks post-surgery. The absolute difference between the target and actual refraction ranged from -2.66 to +2.48 D with mean error of  $-0.14 D \pm 0.56 D$ . **Conclusion:** Achieving an accurate refractive outcome is the aim in managing patients' expectation and fulfilling surgeons' satisfaction in balance with sufficient opportunities for the trainees' learning curve. It is an objective indicator either to measure surgeon surgical skill or identify any loophole to improve the surgical performance.

## KEY WORDS:

*Post cataract refractive outcome, refractive accuracy, cataract service, phacoemulsification, target refraction*

# Application of LEAN thinking to ophthalmology clinic

**Jacqueline Ting Yih Ling, Edwin Pheng Chin Meng, Rozita Binti Ismail, Norlaila Binti Talib, Rosniza binti Ab. Razak**

Department of Ophthalmology, Hospital Serdang, Kementerian Kesihatan Malaysia

## ABSTRACT

**Objective:** Value stream mapping (VSM) is a LEAN technique used to visualise a process flow, identifying the work flow and structure. It helps to reduce waste and improve care delivery. Application of VSM in Malaysian healthcare is still in the early stage. Ophthalmology clinic involves numerous care pathways. Therefore, the objective of this study is to identify Arrival to Consultation (ATC) and Clinic Length of Stay (CLOS), in order to establish areas for improvement. **Method:** VSM was created to determine the common care pathways. Quantitative data was collected for seven days in Ophthalmology Clinic, Hospital Serdang from 0830-1300pm when patient load is highest. Task time at each process was noted. ATC and CLOS for different care pathways were calculated and compared with the benchmark set by Ministry of Health (MOH). **Results:** Average number of patients per day is 282 patients. The pathway with the longest ATC; 276 minutes and CLOS; 292 minutes is the one involving active screening clinic. For other pathways, CLOS range from minimum 90 to 170 minutes, ATC range from 106 to 186 minutes. The results were far cry from MOH's benchmark, ATC 90 minutes and CLOS 150 minutes. Waiting time and multi-procedures for a single patient have been identified as main contributors of the below par results. **Conclusion:** VSM has shown its significance in the application of LEAN in our ophthalmology clinic. This provides an insight of improvement in the process flow. Thus, we believe that application of LEAN has the potential to improve the healthcare delivery in Ophthalmology clinic.

## KEY WORDS:

*LEAN, ophthalmology clinic, improve healthcare delivery*

## Is hand dominance associated with eye dominance?

Tan Yee Ping, Ang Ee Ling, Ang Vyping

Hospital Pulau Pinang, Kementerian Kesihatan Malaysia

### ABSTRACT

**Objective:** To study the association between hand dominance and eye dominance. **Method:** This is a cross-sectional observational study which involves 150 candidates (82 female, 68 male) with mean age of 43 years old and vision 6/24 or better. During screening programs, the Miles test was performed. Candidate extends both arms, brings both hands together to create a small opening and with both eyes open views a distant object through the opening. The candidate then alternates closing the eyes to determine which eye is viewing the object (i.e. the dominant eye). Dominant hand was verbally asked and recorded. **Results:** Total of 136 candidates with right-hand dominance (90.67 %) which is higher than those with left-hand dominance (9.33 %). 112 candidates with right eye dominance (74.67 %), 31 with left eye dominance (20.67 %) and 7 equivocal (4.67%). Total of 109 candidates with both right eye and hand dominance (72.67 %). Total of 9 candidates with both left eye and hand dominance (6 %). Candidates with same side hand-eye dominance are more common (78.67%) than candidates with crossed laterality i.e. opposite hand-eye dominance (16.67 %). We investigate the association using Fisher's exact test. A significant association between dominant hand and dominant eye was observed, p-value < 0.001. **Conclusion:** Binocular rivalry was first described by Porta in 1593, despite being recognised 425 years ago, surprisingly little is known about eye dominance, at least in comparison with hand dominance. We believe laterality is an important topic in future research and worthwhile to be explored in.

### KEY WORDS:

*Ocular dominance, hand dominance, crossed laterality*

## Outcome of idiopathic full thickness macula hole surgery: Our experience at Hospital Selayang

Yeoh Seng Hong, Loh Chow Chin, Chong Shu Huan, Jane Foo, Zabri Kamarudin

Department of Ophthalmology, Hospital Selayang, Kementerian Kesihatan Malaysia

### ABSTRACT

**Objective:** To evaluate the anatomical and visual outcomes of pars plana vitrectomy (PPV) for idiopathic full thickness macula hole (FTMH). **Method:** This was a retrospective case series done in Hospital Selayang of patients who underwent PPV for FTMH from 1 January 2016 to 31 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 ± 8.4 SD years) reported higher closure rate compared to older patient age group (mean=69.5 ± 4.2 SD years) [P=0.03]. Larger MHI (mean=0.54± 0.2 SD) also had better closure rate than smaller MHI (mean=0.33± 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 five (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 a 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.

# Outcome of intra-arterial chemotherapy in retinoblastoma, our 3.5 years' experience

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## ABSTRACT

**Objective:** In recent years, Intra-arterial chemotherapy (IAC) has emerged as a promising treatment of Retinoblastoma (RB), with its utmost precision of drug delivery and proven efficacy, as well as safety. The study objective is to report Hospital Kuala Lumpur's experience using IAC in the treatment of RB; the patients and disease demographics; as well as the treatment outcome. **Method:** Single institution, retrospective, case series of 14 consecutive retinoblastoma patients who were managed with IAC, over a 3.5 years period (December 2014 to June 2018). **Results:** Mean age of the patient when they received IAC was 31 months old. 14 eyes (14 patients) were included in this study but only 13 eyes successfully underwent IAC. The mean number of IAC each eye received was 1.4 (range 1-4). Our radiologist had performed a total of 30 IAC procedures, with 21 of them (70%) successfully cannulated and chemotherapy drug Melphalan delivered. Our rate of IAC in tumour control was good, with 62% of the eyes showed tumour regression (complete and partial response). Our globe salvage rate was 46% (6 eyes of 13), while 54% ultimately underwent enucleation. IAC was found to be safe, with few systemic adverse effects. Most of the adverse effects were local, mild and self-limited. No long-term systemic adverse effect, metastasis or secondary cancer was reported. **Conclusion:** IAC provides an alternative to salvage globe, especially in advanced, bilateral retinoblastoma. Our IAC experience showed promising treatment outcome and a good safety profile. We are moving forward to consider IAC as the first line treatment of retinoblastoma.

## KEY WORDS:

*Retinoblastoma, eye tumour, intra-arterial chemotherapy, IAC, oncology, paediatric, radiology*

# Retrospective study of involutinal lower eyelid entropion correction

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## ABSTRACT

**Objective:** To evaluate the 10-year results of surgery for lower eyelid involutinal entropion and identify factors associated with its outcomes and recurrence. **Method:** Retrospective series of 66 consecutive eyelid surgeries in 56 patients who underwent lower eyelid entropion repair from 2007 to 2017 in Hospital Serdang, Malaysia's oculoplastic centre. Various methods of surgical technique were employed - Weiss procedure, Quickert procedure, everting suture, transcutaneous retractor plication, Jones procedure, lateral tarsal sling (LTS) and combined methods, for example Weiss procedure combined with LTS, and Jones procedure combined with LTS. Outcomes of surgery, complications and recurrence were evaluated during follow ups, up to 12 months post-op. **Results:** There were 66 eyelids involved, which were followed up for a minimum period of two weeks up to twelve months. 56 eyelids were successfully cured. Various methods of correction were performed; mainly Jones procedure combined with LTS (72.7%), followed by Jones procedure alone (7.6%). Five eyelids (7.6%), three patients were overcorrected by Jones procedure combined with LTS, and two patients were undercorrected after Weiss and Jones procedure. Five other patients (7.6%) had recurrence, two cases after Weiss procedure, two cases after Jones procedure, and one post-Jones combined with LTS. Only two patients required revision surgery. **Conclusion:** Lower eyelid involutinal entropion repair can be achieved via various methods of surgical correction. Combined methods for example Jones procedure with LTS is becoming more popular nowadays and has the least recurrence. Surgical methods and surgeon's skills play a role in determining the success of surgical outcomes.

## KEY WORDS:

*Lower lid involutinal entropion, lateral tarsal sling, Jones procedure*

# Visual rehabilitation for aphakia with scleral tunnel fixated intraocular lens: The UKMMC experience

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## ABSTRACT

**Objective:** There are several options of intraocular lens(IOL) implantation when capsular support is inadequate including scleral-fixated IOL(SFIOL). SFIOL implantation using routine three-piece IOL secured with scleral tunnels is gaining popularity due to its simplicity and ease of using routine readily available sulcus fixated three-piece IOLs. This also places the IOL nearer to physiological nodal point. **Method:** Retrospective case series of scleral tunnel fixated three-piece IOLs from September 2016 to May 2018 in UKMMC. **Results:** This study comprised of eight cases. The mean age at surgery was 62 years (range 11 to 83 years). The causes of inadequate capsular support were complicated previous surgery in five eyes (62.5%), trauma in two eyes (25%) and spontaneous lens dislocation in one eye. Scleral flap was created in four eyes. All patients had two perilimbal sclerostomy wounds and partial thickness scleral tunnels for tucking of haptics. In the eyes with scleral flaps, these were sutured with Vicryl. The three-piece intraocular lenses used were the AR40E SENSAR™ in seven eyes (87.5%) and ALCON MN60AC used in one eye. All patients had an improved visual acuity (VA) except one case of unchanged VA with pre and post operation VA of at least 6/12. Postoperatively, four eyes had raised intraocular pressure which was controlled with topical medication and two eyes had cystoid macular oedema which responded to topical NSAIDS. There were no cases of postoperative retinal detachment or dislocated IOL. One eye had posteriorly tilted IOL which was observed. Duration of follow up ranged from two weeks to thirteen months. **Conclusion:** Posterior chamber scleral tunnel fixated IOL implantation provided a favourable outcome in many cases with minimal complications.

## KEY WORDS:

*Scleral tunnel fixated intraocular lens*

## A 5-year retrospective review on infectious keratitis in the central zone of Sarawak, Malaysia

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### ABSTRACT

**Objective:** To analyse the demographics, preceding risk factors, microbiological profile and final visual outcome of patients with infectious keratitis in the central zone of Sarawak, Malaysia. **Method:** A retrospective review of medical records was conducted for all patients with infectious keratitis in Hospital Sibul from January 2013 until May 2018. **Results:** In this study, a total of 138 cases (143 eyes) were included with a mean age of 47.2 years. 61% were male and 38% were female, generating a male to female ratio of 1.6:1. The most common risk factors were ocular injury (27%) followed by contact lens usage (15%) and recent ocular surgery (7%). Majority of the corneal ulcers were large (48%) and situated centrally (67%). Among the studied causative microorganisms, *Pseudomonas aeruginosa* was found to be the most common pathogen isolated. Cornea perforation occurred in 17 eyes (11%) with 7 eyes (4%) resulting in evisceration. **Conclusion:** Ocular injury was identified as the primary risk factor for infective keratitis in this study with *Pseudomonas aeruginosa* being the commonest pathogen isolated. A good understanding of the latest epidemiology and microbiological profile of infectious keratitis in the central zone of Sarawak is crucial in aiding the management of these cases in hopes of a better final visual outcome.

### KEY WORDS:

*Infectious keratitis, ocular injury, Pseudomonas aeruginosa*

## A case series of carotid cavernous fistula

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### ABSTRACT

**Objective:** To report four cases of carotid cavernous fistula. **Method:** a Case report. **Results:** The patients' age ranging from 17 to 67-year-old. Two of the patients have a history of a motor vehicle accident while two patients have thyroid problems. All four patients presented with painless red eye. One of the patients presented with 'hissing' sound from the eye. Two of the patients had RAPD positive. Two of the patients' vision of the affected eye dropped to NPL while the other two has no affected vision. One of the patients had bilateral eye involved while the other three patients had only one eye affected. Three of the patients had proptosis and injected conjunctiva over the affected eye. IOP of three patients was 21. There were no significant findings of the posterior segment. **Conclusion:** A high index of suspicion for patients with sign and symptom consistent with CCF will assist in early treatment and better prognosis.

### KEY WORDS:

*CCF, IOP, RAPD, NPL*



# A miraculous survivor of a sino-orbital aspergillosis complicated with cerebral extension in an immunocompromised patient

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## ABSTRACT

**Objective:** To report a case of successfully treated invasive orbital aspergillosis in an immunocompromised patient. **Method:** A case report. **Results:** A 34 year-old Malay man who was admitted for severe diabetic ketoacidosis was referred for right oculomotor cranial nerve palsy. Clinically, he appeared confused and ill-looking. Anisocoria was detected with right positive relative afferent pupillary defect. There was right partial ptosis with injected conjunctiva and limitations of elevation, depression and adduction. Right fundus showed signs of central retinal artery occlusion (CRAO). He was initially treated as right orbital cellulitis complicated with orbital apex syndrome and CRAO. Contrasted MRI of brain and orbit revealed right-sided pansinusitis with right extraconal extension and bifrontal cerebritis. Otorhinolaryngology team proceeded with bilateral endoscopic optic nerve decompression with functional endoscopic sinus surgery. Tissue culture grew *Aspergillus fumigatus*. Two weeks later, his conscious level deteriorated. Urgent CT scan of brain and orbit showed cerebral empyema. Bicoronal craniotomy and drainage was done by the neurosurgical team. His condition later worsened with right eye proptosis and complete third nerve palsy. His fellow eye revealed CRAO. MRI brain and orbit reported recurrent heterogeneous opacity involving orbital apex with extension into the cavernous sinus. The patient underwent combined surgery of bicoronal craniotomy, debulking of fungal mass and right subtotal exenteration. He completed anti-fungal treatment for 6 months in total. At 5 months postoperatively, his general health condition improved with healthy granulation tissue of right socket. **Conclusion:** Mortality rate in orbital Aspergillosis does not correlate with intracranial extension. Early diagnosis, aggressive treatment and prolonged antifungal improve outcome.

## KEY WORDS:

*Diabetic ketoacidosis, central retina artery occlusion, pansinusitis, orbital apex syndrome, Aspergillus fumigatus*

# A rare case of indirect carotico-cavernous fistula

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## ABSTRACT

**Objective:** To report a rare case of spontaneous right indirect carotico-cavernous fistula following normal labour. **Method:** a Case report. **Results:** A 31-year-old lady presented with painless right eye redness for 2 weeks with no reduction in vision. She had no medical illness and denies head trauma or other constitutional symptoms. She had 4 children with the youngest being 3 months old. All were born via normal vaginal delivery. On examination, right eye was proptosed evidenced by exophthalmometer measurement of 15mm and 13mm on the right and left, respectively. It was non-pulsatile with neither bruit nor thrills. Both visual acuity was 6/6 with no relative afferent pathway defect or anisocoria. Extraocular muscle movement, confrontation and other cranial nerve tests were normal. She had no chemosis, ptosis or lagophthalmos. Intraocular pressure (IOP) and fundus were normal. CT scan brain and orbit was suggestive of right carotico-cavernous fistula (CCF). Her clinical condition worsened on the third day- pulsatile proptosis with bruit and thrills. Her right IOP was 24 mmHg. Cerebral digital subtraction angiography showed a communication of the meningeal branch of the right external carotid artery and inferolateral trunk of internal carotid artery with the right cavernous sinus consistent with right indirect CCF. All blood tests included vasculitis and autoimmune screenings came back as either normal or negative. Embolization of right indirect CCF was performed. She attained complete clinical resolution a month later. **Conclusion:** We present a rare case of symptomatic carotico-cavernous fistula developing as a result of stress of labour in a previously healthy woman.

## A rare complication of epiblepharon

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### ABSTRACT

**Objective:** To report a case of epiblepharon with an uncommon complication in PPUM. **Method:** Case report. **Results:** We report a 7-year-old boy with underlying Klinefelter mosaic and global developmental delay who presented with tearing of the right eye for 6 months associated with intermittent eye redness. It was uncomfortable which resorted him to have the habit of poking his eye and hitting his right frontal region with his fist. Cyclorefraction showed dull red reflex of the right eye while his other eye exhibited high myopia of -7.00/-1.25 x 90. Examination of the right eye revealed he has mildly injected conjunctiva with right lower epiblepharon causing cilia to rub onto his cornea with PEE. The lens was noted to be cataractous with a central PSCC. The posterior segment of the eye was normal. An EUA, biometry, Hotz procedure was done which was subsequently followed by lens aspiration, posterior capsulotomy, anterior vitrectomy and intraocular lens. **Conclusion:** Cataract as a complication of epiblepharon is uncommon. It arises from self-elicited trauma by disabled patients which is necessary to treat to prevent other more serious injuries to the eye and worsening amblyopia.

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## A rare presentation of ocular melioidosis in paediatric patient

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### ABSTRACT

**Objective:** To report a rare case of posterior uveitis in paediatric patient. **Method:** a Case report. **Results:** A 10-year-old Malay boy, presented with left eye sudden onset painless blurring of vision. His visual acuity was 6/6 OD and CF OS. The relative afferent pupillary defect was positive OS. Anterior segment examination was unremarkable. Fundus examination of his left eye showed optic disc granuloma and subtotal exudative retinal detachment inferiorly with an area of vasculitis superiorly and temporally. All investigations were negative apart from a raised total white cell count, raised erythrocyte sedimentation rate and raised C-reactive protein. His melioidosis serology was positive with a high titre of 1:320. He was treated with intravenous ceftazidime for two weeks followed by oral azithromycin for six weeks. Oral prednisolone and topical dexamethasone were also added. This treatment regime proved to be successful at treating ocular melioidosis with complete resolution of the signs and symptoms in this patient. **Conclusion:** Ocular melioidosis may mimic other forms of infectious uveitis in children. It should be considered in any patient with optic disc granuloma and exudative retinal detachment in order to initiate early treatment to achieve a good final visual outcome.

### KEY WORDS:

*Ocular melioidosis, Burkholderia pseudomallei, exudative retinal detachment, optic disc granuloma, infectious posterior uveitis*



# A suspected cavernous-carotid fistula with a normal computed tomography angiogram of the brain, what's next?

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## ABSTRACT

**Objective:** To report a case of cavernous-carotid fistula with a normal CT angiogram of the brain but later on confirmed by a cerebral angiogram. **Method:** A retrospective case report. **Results:** A 70 year-old Malay lady with underlying diabetes presented with progressive left eye redness for 1 month associated with left eye protrusion. There was no blurring of vision, or eye pain and no headache, nausea or vomiting. Clinical examinations revealed tortuous dilated vessels with corkscrew appearance over left eye sclera. The proptosis in the left eye was confirmed with an exophthalmometer. Extraocular movement was slightly restricted but no diplopia. Anterior segment noted occasional anterior chamber cell. Intraocular pressure of the left eye was 24mmHg. Fundus examination showed left eye mild non-proliferative diabetic retinopathy with no diabetic retinopathy changes over the right eye. Systemic examination reviewed no palpable neck swelling with normal vitals. Blood investigation showed normal thyroid function test. The basic uveitic workout was normal. Findings from the fundus fluorescent angiography were not conclusive. CT Angiogram of the brain showed mild proptosis and relative enlargement of inferior and medial recti of the left eye with no tendon involvement. However, the superior ophthalmic veins appeared normal. A subsequent cerebral angiogram showed evidence of left indirect cavernous-carotid fistula with the branches noted from the cavernous segment of the internal carotid artery. **Conclusion:** In the diagnosis of cavernous-carotid fistula, cerebral angiography is the gold standard despite its invasiveness. A normal CT angiogram should warrant a cerebral angiography if cavernous-carotid fistula is suspected.

## KEY WORDS:

*Cavernous-carotid fistula, cerebral angiography, computed tomography angiogram, gold standard*

# A tale of two cases of orbital cellulitis in Kapit, Sarawak

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## ABSTRACT

**Objective:** To report 2 cases of orbital cellulitis secondary to Melioidosis in Kapit, Sarawak. **Method:** Case Series. **Results:** Case 1 – A 58-year-old Iban man with uncontrolled diabetes mellitus (DM) presented with symptoms of pneumonia for the past 10 days. There was also swelling of the right upper eyelid which ultimately led to complete ptosis. The swelling was warm, tender, and erythematous and associated with chemosis and restriction of extraocular movement. After starting him on intravenous antibiotics, his general condition improved and the lid swelling localized to form a lid abscess. Incision and drainage (I&D) of the lid abscess was done. Cultures from blood and lid abscess yielded positive for *Burkholderia pseudomallei*. Case 2 – A 63-year-old Iban man with uncontrolled DM developed a high fever with worsening respiratory symptoms for the past 2 weeks. Right eye ptosis due to periorbital swelling and chemosis was noted during admission. His clinical condition deteriorated and he was intubated for respiratory distress and septic shock. Blood cultures grew *B. pseudomallei* and he was diagnosed with Disseminated Melioidosis. He was extubated when his condition was stable and the eyelid swelling eventually localized into a lid abscess. I&D was done and the same organism was isolated. **Conclusion:** Orbital cellulitis is a rare manifestation of Melioidosis and it is highly associated with disseminated septicemia. The case series show similar outcomes in 2 cases of orbital cellulitis that eventually resulted in lid abscesses. It is also crucial to consider Melioidosis as the cause especially in endemic areas such as Kapit, Sarawak and in patients with immunocompromised states such as DM.

## KEY WORDS:

*Melioidosis, burkholderia pseudomallei, orbital cellulitis, lid abscess, diabetes mellitus*

## Adenoid cystic carcinoma: A rare orbital tumour

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### ABSTRACT

**Objective:** To describe two rare cases of adenoid cystic carcinoma arising from the orbit. **Method:** Case series **Results:** The first case is a 72-year-old Malay lady with underlying hypertension, while the second case is a 17-year-old Iban boy with underlying young hypertension. Both cases presented with painless progressive proptosis of the right eye over a few months' duration. There were no other ocular or neurological complaints. Both patients had normal visual acuity over the right eye with no relative pupillary afferent defect. There was significant proptosis in both patients. Extraocular movements were full for case 2 but restricted for case 1 at the lateral gaze. Other ocular examinations were normal. Both patients had computed tomography of the orbit done, which showed heterogeneously enhancing mass, located extraconal and lateral to the orbit. The optic nerve was not involved. However, there was involvement of the right lateral rectus muscle in case 1. Both patients underwent an excisional biopsy. Intra-operative findings were similar in both patients, whereby, an extraconal well-encapsulated mass was seen. Histopathological findings of both patients showed neoplastic cells arranged in a cribriform and tubular pattern. Both patients had a perineural and lymphovascular invasion. Patient from case 1 underwent total exenteration with a split-thickness skin graft. Patient from case 2 is planned for total exenteration. **Conclusion:** Adenoid Cystic Carcinoma is a rare malignant epithelial neoplasm, arising from the secretory glands and defined by its distinctive histology. Mainstay treatment is still surgical resection, however, neoadjuvant chemotherapy has been reported to be successful in some cases.

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## Are we on par? A 5-year review

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### ABSTRACT

**Objective:** To review the outcomes of Glaucoma Drainage Devices (GDDs) over a period of 5 years in Hospital Selayang, Malaysia. **Method:** A 5-year retrospective review from 1 Jan 2012 to 31 Dec 2016 of all GDDs surgeries that were performed. **Results:** A total of 29 surgeries were performed within the review period. 82.7% of the GDDs implanted were Baerveldt. 72.4% of these surgeries were indicated for a secondary type of glaucoma. 20 out of 29 patients had no previous glaucoma surgery while the others had failed trabeculectomy(s). Using the same criteria for complete success, qualified success and failure as in Ahmed Baerveldt Comparison (ABC) and Ahmed versus Baerveldt (AVB) studies, the complete success at 1 year for Baerveldt implant was 62.5% while for Ahmed implant was 2% (ABC study: Baerveldt 36%, Ahmad 23.0%; AVB study: Baerveldt 17.0%, Ahmad 17%). The failure rate at 1 year was 4.2%, with a Baerveldt implant only as 80% of Ahmed valve implant was a qualified success (ABC study: 14% failure, AVB study: 21% failure in Baerveldt implant). Mean IOP at 1 year postoperative was  $12.5 \pm 4.5$  mmHg and  $11.8 \pm 3.8$  mmHg for Baerveldt and Ahmed implant respectively. Both results were lower than those reported in the ABC and AVB studies. Mean number of medications used postoperatively at 1 year for both types of implants were similar when compared to the ABC and AVB studies. **Conclusion:** The outcome results of GDDs surgery performed in Hospital Selayang were comparable to other overseas centres. Hence, the standard of care can be concluded to be at par.

### KEY WORDS:

GDD, outcomes

## Case series of paediatric orbital cellulitis: The need of surgical drainage

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### ABSTRACT

**Objective:** Orbital cellulitis is an infection of the soft tissues posterior to the orbital septum. It is a vision and life threatening emergency and has to be promptly treated. We report a case series of paediatric orbital cellulitis in which abscesses were drained. **Method:** Case series. **Results:** The first case is a 3 year old boy who had left eye orbital cellulitis with Chandler's classification Class IV. He presented with visual acuity (VA) of 6/15. The second case is a 5 year old boy who had Chandler's Class V left eye orbital cellulitis. VA at presentation was 6/30. They both had proptosis and limited EOM but no RAPD. Paranasal sinusitis and dental caries were present in both cases. Computed Tomography (CT) brain/orbit/paranasal sinuses (PNS) for Case 1 showed extraconal, intraorbital abscess which extends to the mandibular region. No subperiosteal abscess noted. In view of poor response to IV antibiotics, otorhinolaryngology (ORL) and the dental team were consulted and Functional Endoscopic Sinus Surgery (FESS) and tooth extraction were done. Drainage was done from the oral cavity. CT brain/orbit/PNS for Case 2 revealed extraconal intraorbital abscess and cavernous sinus thrombosis but there was no subperiosteal abscess. ORL and dental team were consulted and FESS and tooth extraction were done. Anterior approach drainage via subciliary incision was done. Both children completed 2 weeks of antibiotics and were discharged well. **Conclusion:** Paediatric orbital cellulitis with intraorbital abscess usually does not require drainage especially those under the age of 9, however, clinical judgment must be tailored to each individual patient.

## Case series: Symptomatic floaters in posterior vitreous detachment treated by Nd:YAG vitreolysis

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### ABSTRACT

**Objective:** To report 3 cases of symptomatic floaters in posterior vitreous detachment treated with laser vitreolysis. **Method:** Case series. **Results:** Three cases of posterior vitreous detachment related floaters underwent vitreolysis laser. These 3 patients complained of floaters for at least 3 months which affected their vision and caused anxiety or fear. Nd-YAG laser (Ellex, Ultra Q Reflex) was used for vitreolysis in a single or repeated session at 1-month intervals. The energy level on average was 1.82mJ, ranging from 1.3mJ-2.6mJ. Total laser energy on average was 567.4mJ, ranging from 435mJ-1889mJ. The visual acuity, slit lamp examination, contrast sensitivity function (CSF) by computer-based Freiburg Acuity contrast test (FrACT) in Weber index (%W), health-related quality of life by visual function questionnaire-25 (NEI VFQ-25) and optical coherence tomography were done prior to and after vitreolysis treatment. Two patients were asymptomatic after the first treatment; 1 patient with amorphous floaters need repeated vitreolysis 3 times. All patients received guttae Dexamethasone 0.1% qid in treated eye for a week. One month after completing vitreolysis, all patients showed improved in CSF of 0.44-3.58%W. All subscales in NEI VFQ-25 were shown to be improved. No complication was observed. **Conclusion:** Laser vitreolysis is a useful non-surgical option for symptomatic floaters in posterior vitreous detachment because of its high effectiveness, low complication rate and good functional outcome.

### KEY WORDS:

*Floaters, posterior vitreous detachment, vitreolysis, contrast sensitivity function, visual function questionnaire- 25*

# Cataract cancellation in Hospital Canselor Tuanku Muhriz

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## ABSTRACT

**Objective:** This retrospective study was carried out to evaluate the reasons for cancellation of elective cataract operations at Hospital Canselor Tuanku Muhriz over a duration of two years from January 2016 to December 2017. **Method:** Patients listed for surgery was obtained from the operation list. Cancellation was identified through cancellation reports and confirmed by going through the patients' files. All patients attended the preoperative cataract clinic whereby baseline investigations were done including full blood count, renal profile, HbA1c, electrocardiogram and chest x-ray. They were assessed and optimized for pre-existing medical conditions and counselled regarding the surgery. **Results:** The total number of patients that was listed for elective cataract surgery over the 2 years were 2603 cases. On the day of surgery, 4.34% of the cases were cancelled. This was mainly due to systemic medical issues, involving 65 % patients. Uncontrolled hypertension was the leading cause (16.8%) followed by upper respiratory tract infection (15.9%), poorly controlled sugar (8.8%) and various cardiology related issues (7%). Ocular causes of cancellation comprised of 14% with blepharitis and meibomitis being the main ocular cause (9.7%), followed by keratitis (1.8%) and conjunctivitis (1.8%). A total of 30 patients did not come for the scheduled operation despite being contacted prior to surgery. **Conclusion:** The cancellation of cataract cases in our teaching hospital was mainly due to systemic medical conditions. Although part of the causes is acute causes such as infection, further efforts are needed to optimize the overall conditions with the need for more collaboration with primary care providers and physicians.

## KEY WORDS:

*Cataract, cancellation, causes*

# Lens-induced glaucoma: An audit of cataract cases in Hospital Sultanah Nur Zahirah (HSNZ)

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## ABSTRACT

**Objective:** To report on cases of cataract complicated with lens induced glaucoma in HSNZ. **Method:** Data from the National Eye Database were collected and analysed from the year 2011 till 2017. **Results:** A total of 80(1.09%) cases of lens induced glaucoma was calculated from 7316 cataract cases treated during the seven years of study period. The number of cases showed an increasing trend with 0.78% in 2011 to 1.26% in 2017. Most of the patients were in the age group of 60-69 years old(35.75%), followed by 70-79 years old(29.56%), 50-59 years old(21.73%), 80-89 years old(4.62%) and 90-99 years old(0.21%). There is significant gender distribution with this problem. Majority of them (69.42%) underwent cataract operation for the first eye. Cataract can progress to become intumescent (phacomorphic) or hypermature (phacolytic) leading to lens induced glaucoma which can subsequently cause permanent optic nerve damage. It is associated with late presentations therefore those in the older age groups who are dependent on others to seek treatment, predominates. Gender bias also put females at higher risk due to lower priority given to them in some communities to seek treatment. Overall, there has been an increase in cases of lens induced glaucoma which may be contributed to outreach programs that enabled patients from rural areas to receive treatment and the community's growing awareness and acceptance of cataract operation. **Conclusion:** Cataract is the main cause of preventable blindness worldwide and as such, it is important to identify these patients early before complications develop to avoid this preventable blindness from becoming permanent.

## KEY WORDS:

*Lens-induced glaucoma, phacomorphic, phacolytic*

# Cataract surgery in patients with uveitis: A random retrospective 1-year review in Hospital Selayang

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Pusat Perubatan Universiti Kebangsaan Malaysia, Universiti Kebangsaan Malaysia

## ABSTRACT

**Objective:** To evaluate the efficacy of cataract surgery in uveitis. **Method:** A retrospective electronic data review of patients with uveitic cataract who has undergone cataract surgery from January until December 2017. **Results:** Ten eyes with uveitic cataract that had undergone phacoemulsification with intraocular lens implantation were included in this study. Pre-operative vision ranged from 6/18 to counting fingers at 2 feet. The aetiology of the uveitis varied from Behcet disease, ocular tuberculosis, cytomegalovirus, herpes zoster ophthalmicus and Idiopathic cause. Generally, all eyes were 'quiet' for a minimum of 3 months duration prior to surgery. All patients were started on oral prednisolone 0.5mg/kg daily for 2 weeks prior to surgery which was tapered gradually post operatively. Intra-operative anatomic challenges such as small pupil with posterior synechiae were managed meticulously and none had surgical complication. At 2 months post-operatively, 6 patients vision of 6/18, 3 patients with vision of 6/60 and 1 patient with Counting Finger 3 feet. Epiretinal membrane was the main reason of poor vision and none had cystoid macular oedema post operatively. **Conclusion:** Patients with uveitis will benefit from cataract surgery provided medical prophylaxis, intraoperative surgical technique and post-operative care were optimised.

## KEY WORDS:

*Uveitis, uveitic cataract, cataract surgery*

# Choice of IOL in poor capsular support, ARTISAN or ACIOL?

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## ABSTRACT

**Objective:** To compare the outcomes and complications of ARTISAN (iris-claw anterior chamber intraocular lens) and anterior chamber intraocular lens (ACIOL) lens implantation. **Method:** A retrospective analysis was done in 42 patients; 29 eyes implanted with ARTISAN lens (58%) and 21 eyes with ACIOL (42%), in Melaka General Hospital from January 2014 till January 2018. **Results:** We found that the mean number of line improvement on Snellen acuity chart for ARTISAN lens was  $3.13 \pm 2.83$ , while ACIOL showed a higher improvement at  $5.57 \pm 5.94$ , however, this is not statistically significant ( $p=0.93$ ). ARTISAN lens demonstrated a 68.9% improvement of best corrected visual acuity (BCVA) in  $\geq 2$  lines as compared to ACIOL 76.2%. Both achieved comparatively similar visual acuity at one week postoperatively (ARTISAN: 41.4%; ACIOL: 47.6%). Final BCVA equal to or better than 6/12 is 86.9% in the ARTISAN group and 71.42% in the ACIOL group. Additionally, ACIOL group also has a 9.5% incidence of post-operative epiretinal membrane (ERM). Both lenses showed post-operative increase in intraocular pressure (ARTISAN: 10.3%; ACIOL: 9.5%). Other complications include retinal detachment (3.44%) in ARTISAN group and one case of corneal decompensation (4.7%) in ACIOL group. **Conclusion:** Complicated cataract surgeries with poor capsular support would ideally benefit from sophisticated lenses such as ARTISAN and scleral-fixated lens. Still, ACIOL can be a considerable option due to it being readily available, easily implanted and shorter implantation time with a considerable good visual outcome.

# Clinical presentation, management and outcome of lens-induced glaucoma in Hospital Tengku Ampuan Rahimah (HTAR) Klang

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## ABSTRACT

**Objective:** To analyse the clinical presentation, management and outcome of lens-induced glaucoma in Hospital Tengku Ampuan Rahimah, Klang. **Method:** Retrospective review was done existing patient from March 2015- March 2018. **Results:** A total of 35 patients are recorded with lens-induced glaucoma was admitted within this 3 year period in Hospital Tengku Ampuan Rahimah. However, 15 patient's data are not included in view of loss in follow up. Only 20 patient's data are able to analysed and included in this audit. 70% are above 60 years old and the remaining 30% are below than 60 years old in the age group distribution. Of total 20 patients, 12 cases (60%) had phacomorphic glaucoma, 7 cases (35%) of phacolytic glaucoma and 1 case (5%) of phacoanaphylactic glaucoma. 90% of the cases come with vision below than 6/60. For the symptoms, only 10% come with a presentation less than 3 days, 40% come within 3-7 days of symptoms, and the rest 50% come with symptoms duration more than 7 days. All of the cases are done by cataract extraction. 9 cases (45%) regained a visual acuity of 6/12 or better. 45% had a final best corrected worse than 6/60. Poor outcome for this group may due to the late presentation that post operatively noted 35% of patients already had absolute glaucoma with optic nerve damage, 45% developed a post-operative complication and another 20% had pre-existing previous posterior segment pathology. **Conclusion:** Early diagnosis and treatment of mature cataract are important since delayed treatment of lens-induced glaucoma may result in a poor visual outcome.

## KEY WORDS:

*Lens-induced glaucoma*

# Corneal astigmatism in patients who refuse toric intraocular lens (IOL) implantation to correct corneal astigmatism at the time of cataract surgery in Pusat Pembedahan Katarak Majlis Agama Islam Wilayah Persekutuan (MAIWP) - Hospital Selayang (PPKM-HS)

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## ABSTRACT

**Objective:** To evaluate postoperative cornea astigmatism in patients who refused toric intraocular lens (IOL) implantation for corneal cylinder 1.5D. **Method:** Cataract patients who refuse toric intraocular lens implantation with corneal astigmatism 1.5D in 17 eyes were included. Patients aged between 37 and 80 years with cataract, pre-existing regular corneal astigmatism of equal or more than 1.5D up to 3.4.D and willing to follow up for 6 weeks. They were operated by a multiple ophthalmic surgeons using phacoemulsification. Irregular astigmatism, corneal infection and opacities and any previous ocular surgery were excluded from the study. Pre-operative and post-operative corneal astigmatism data were compared and analysed using SPSS version 20. **Results:** 13 of 17 eyes (76%) the cylindrical power was reduced. Pre-op cylindrical power has higher reading (Mean= -2.25, SD=0.55) compare to post-operative corneal astigmatism (Mean= -2.04, SD=0.64). Mean reduction of corneal astigmatism post-operative is 0.20. Paired sample t-tests indicated that there were a significant difference in pre corneal astigmatism and post corneal astigmatism reduction ( $t(17) = 2.313, p = 0.034$ ). **Conclusion:** In patients who were unable to purchase toric IOL, they can also achieve reduction of corneal astigmatism by having the main wound made at the steepest meridian.

## KEY WORDS:

*Refuse toric intraocular lens, IOL*



# Corneal bee sting with retained stinger - Is surgical removal always indicated?

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Pusat Perubatan Universiti Malaya (PPUM)

## ABSTRACT

**Objective:** To report cases of corneal injury by the bee sting, presenting features, management and clinical outcomes. **Method:** Case series with literature review. **Results:** Forty-five-year-old gentleman presented with severe eye pain, epiphora and decreased vision two hours post bee sting to his right eye (RE). Relative afferent pupillary defect (RAPD) was negative, and vision was documented at counting fingers due to 2 retained stingers extending into posterior stroma with overlying epithelial defect causing corneal oedema and endothelial striae. The anterior chamber (AC) was deep with moderate inflammation, normal intraocular pressure (IOP) and no hypopyon. B-scan ultrasound was normal. Intensive topical steroid and antibiotics were initiated with cycloplegics. Symptoms improved with best corrected visual acuity (BCVA) retained at 6/6 hence stinger was not removed. The second patient was a fifty-six-year-old gentleman referred for RE bee sting induced corneal ulcer who presented with eye pain, redness and decreased vision for 4 days. He had no RAPD, vision documented at 6/60 due to a paracentral corneal ulcer with a retained stinger in mid stromal level. The AC had moderate inflammation. Retained stinger was surgically removed and managed with a topical antibiotic and antifungal eye drops. A week later, the corneal ulcer improved, continued to heal with scarring finally resulting in BCVA of 6/12. **Conclusion:** Corneal bee sting injuries are rare thus clinical approach to management remains controversial and ranging from conservative to surgical approach. However, early and prompt management prevents permanent corneal damage and intraocular complications.

## KEY WORDS:

*Cornea, bee sting, retained stinger*

# Dengue maculopathy: A case series

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## ABSTRACT

**Objective:** To report 3 cases of dengue-related ophthalmic complications. **Method:** We report 3 cases of dengue maculopathy. Patients were between 18 to 65 years of age. The onset of ocular symptoms was between 8 to 11 days from onset of fever. All of them presented with a central blurring of vision and distorted vision. Vision at presentation ranged between counting fingers 2 feet and hand movement. Examination showed mottled macula and macula oedema with submacular deposits. One patient had thickened sclera. Two patients underwent fundus fluorescent angiogram showing perifoveal vasculitis. **Results:** The treatment options for these patients are topical dexamethasone, oral prednisolone and intravenous methylprednisolone followed by oral prednisolone. They responded well to steroid therapy with good visual outcome. **Conclusion:** Ophthalmic complications in dengue patients, although rare, may present with posterior segment involvement. Patients with ocular symptoms should be referred early to the ophthalmologist for prompt treatment and a better visual outcome.

## KEY WORDS:

*Dengue maculopathy, case series, steroid therapy*

# Early vitrectomy in paediatric herpetic exogenous endophthalmitis: A case report

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## ABSTRACT

**Objective:** We report a patient with herpetic keratitis with exogenous endophthalmitis who underwent pars plana vitrectomy. **Results:** A 7-month old male was treated as left eye endophthalmitis at a tertiary hospital and referred for continuation of management. He had left eye corneal opacity for 2 days with preceding fever, cough, runny nose, vomiting for 1 week. His condition did not improve despite being given intravitreal antibiotics and anterior chamber washout. He had reduction in left eye corneal sensation, epithelial defect, stromal infiltrate, endothelial plaque, hypopyon, posterior synechiae, high intraocular pressure and white cataract. B-scan showed evidence of loculation. Right eye examination was normal. Systemic examination was unremarkable. A diagnosis of viral keratitis likely herpetic with exogenous endophthalmitis was made based on clinical findings. Initial vitreous culture resulted in growth of *Streptococcus pneumoniae*. Subsequent vitreous cultures, blood and urine cultures were negative. He underwent left eye anterior chamber washout, lensectomy, pars plana vitrectomy, endolaser, silicone oil, intracameral ceftazidime, vancomycin and dexamethasone. Intraoperatively, there was thick pus in the vitreous with multiple patches of necrotising retinitis with retinal hole. His condition improved with resolution of epithelial defect, infiltrate, endotheliitis and retinitis with residual corneal scar. A secondary intraocular lens implantation was scheduled once infection resolved. **Conclusion:** We should have a high index of suspicion for viral causes of endophthalmitis in paediatric age group especially if not responding to treatment and clinical signs of viral keratitis are present. Early pars plana vitrectomy is important to prevent further complications of endophthalmitis leading to poor visual outcome.

## KEY WORDS:

*Herpetic keratitis, endophthalmitis, pars plana vitrectomy*

# Ectopic lacrimal gland with orbital involvement

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## ABSTRACT

**Objective:** To report a very unusual case of ectopic lacrimal gland with orbital involvement and to discuss the assessment, diagnosis and management of this patient. **Method:** Case Report. **Results:** A 15-year-old girl presented with frequent left eye pain and associated symptoms of left eye redness and headache since young. Her symptoms worsened recently with increasing eye pain. Otherwise, her past medical and family history was insignificant. On ocular examination, her best-corrected visual acuity for both eyes was 6/6. There was no relative afferent pupillary defect (RAPD). Significant findings over the affected eye were restricted movement on lateral, superior and inferior gaze in addition to circular subconjunctival haemorrhage over the nasal segment. Otherwise, examination over anterior segment, intraocular pressure and fundus were unremarkable bilaterally. Systemic examination was insignificant too. Magnetic resonance imaging (MRI) of the orbit revealed a well-defined lobulated intraconal lesion measuring 2.0x1.1cm, within the left orbit, located between optic nerve and lateral rectus muscle. She underwent left orbital mass excisional biopsy via left orbitotomy. Intraoperative findings were left intraconal and extraconal mass, adhered to lateral rectus. Histopathology examination (HPE) depicted ectopic lacrimal gland with hyperplasia and mild inflammation. **Conclusion:** The most common sites of ectopic lacrimal gland are the bulbar conjunctiva and the limbal area. Ectopic lacrimal gland tissue with orbital involvement is so unusual that only a handful of cases have been reported so far. The diagnosis is rarely made on clinical grounds alone and rest on the histopathological studies.

## KEY WORDS:

*Ectopic lacrimal gland, orbit, orbitotomy, orbital mass*



# Efficacy of selective laser trabeculoplasty in primary open angle glaucoma: HKL experience

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International Specialist Eye Centre (ISEC)

## ABSTRACT

**Objective:** Selective laser trabeculoplasty (SLT) has been demonstrated to lower the intraocular pressure (IOP) and reduce the number of topical medications used in patients with Primary Open Angle Glaucoma (POAG). The purpose of this study was to investigate the efficacy of a single session of SLT in patients with POAG at 6 months in Hospital Kuala Lumpur (HKL). **Method:** This was a retrospective study conducted in eye specialist clinic, HKL from July 2017 until October 2017. The study recruited cases of POAG patients who were using topical anti-glaucoma medications. A single session of SLT was performed at 360 degrees of the trabecular meshwork. IOP and number of anti-glaucoma medications were recorded at pre-study, 1 week, 1 month, 3 months, and 6 months. **Results:** In 16 eyes, the mean pre-study IOP was  $19.4 \pm 3.4$  mmHg while on  $2.1 \pm 0.6$  eye drops. There was significant IOP reduction at all-time intervals following SLT when compared to the pre-study IOP ( $P < 0.05$ ). However, the reduction of a number of medications was statistically insignificant. **Conclusion:** A single session of SLT achieved an additional 25% of IOP reduction in patients with POAG but unable to reduce the number of medication at 6 months as compared to pre-study level.

## KEY WORDS:

*Selective laser trabeculoplasty (SLT), primary open angle glaucoma (POAG)*

# Endophthalmitis as the first presentation following ocular penetrating injury with intraocular foreign body (IOFB)

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## ABSTRACT

**Objective:** To report a case of endophthalmitis following ocular penetrating injury with intraocular foreign body, its management and outcome. **Method:** Case Report. **Results:** A 34 years old Indonesian male was admitted for sudden painful reduced vision in right eye. He had a history of foreign body hitting his right eye while wielding a hammer two days prior to presentation. Visual acuity was counting finger OD, 6/12 OS and RAPD negative. Examination showed full thickness sclera laceration wound at 9 o'clock with hypopyon and fibrin in anterior chamber. There was severe vitritis. CT scan revealed presence of intraocular foreign body in the right eye. Patient was started on systemic ciprofloxacin and given intravitreal fortum and ceftazidime during right eye sclera laceration wound toilet and suturing with vitreous tapping on the same day. Following primary suturing, patient underwent pars plana vitrectomy, removal of intraocular foreign body and silicone oil insertion. Culture and sensitivity test from vitreous showed *Flavobacterium spp* and clinically patient responded to topical antibiotics. Postoperatively patient's vision improved to 2/60. **Conclusion:** Post-traumatic endophthalmitis is an uncommon but severe complication of ocular trauma with its incidence rate of 2.1% of all open globe injury. The incidence increases up to 5% when associated with IOFB. IOFB is most commonly caused by metal hammering metal. The decision whether to remove as a primary procedure or subsequent surgery depends on the IOFB size and material, visual potential, surgeon, and patient preference. Discussion with a vitreoretinal surgeon is crucial in the early management.

## KEY WORDS:

*Intraocular foreign body, traumatic endophthalmitis*

## Giant eyelid apocrine hidrocystoma with mass effect

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### ABSTRACT

**Objective:** To report a rare case of giant eyelid apocrine hidrocystoma. **Method:** a Case report. **Results:** A 51-year-old healthy Chinese man presented with an unsightly large swelling over the nasal aspect of the left periorbital region. He had a history of blunt trauma to the left upper eyelid 20 years ago and claims the swelling has gradually increased since then. He complained of on and off pricking left orbital pain for the past 1 month which brought him to seek medical attention. The vision was otherwise good (6/9) with no diplopia. Orbital examination revealed a large fluctuant translucent swelling causing lateral displacement of the medial lid appendages. Computed tomography of the orbit reported a left periorbital well-demarcated encapsulated lesion with proteinaceous content measuring 2.6 x 3.3 x 2.8 cm causing a significant mass effect with lateral displacement of the eye globe. Subsequently, the patient was referred to the Oculoplastic team in Serdang and an orbital mass excision was performed. Histopathological analysis was suggestive of apocrine hidrocystoma. **Conclusion:** Apocrine hidrocystomas are uncommon, benign, cystic lesions of the skin frequently found on the face but are rarely found in the periorbital region. Tumours of more than 20 mm are called giant apocrine hidrocystomas and there are so far less than 10 cases reported occurring on the face.

### KEY WORDS:

*Apocrine hidrocystoma*

## Intraocular pressure changes following dropped nucleus: Our experience at Hospital Selayang

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### ABSTRACT

**Objective:** To evaluate the intraocular pressure (IOP) changes and visual outcomes of Pars Plana Vitrectomy (PPV) for dropped nucleus post phacoemulsification. **Method:** This was a retrospective case series of patients who underwent PPV for dropped nucleus from January 2015 to August 2017. All patients underwent PPV with phacofragmentation / lens removal and secondary intraocular lens implantation. Patients (excluding known glaucoma or glaucoma suspects) were selected from hospital electronic medical record with follow up till post-operative third and sixth month. Major outcome parameters were: pre-phacoemulsification versus post-PPV best corrected visual acuity (BCVA) and pre-PPV versus post-PPV IOP. **Results:** Total of 30 patients were included in the study with a mean age of 67.4 years (SD=10.3). Average pre-PPV IOP is 28.6mmHg (SD=15.3) and majority of patients had pre-PPV IOP higher than 22mmHg (n=19, 63.3%). Thirteen (43.3%) patients required two or more anti-glaucoma medications (acetazolamide and anti-glaucoma eye drops) prior to PPV. All patients had a significant reduction in IOP post-PPV third month with an average of 13.8mmHg (SD=3.3, p 0.001) and sixth month 14.6 mmHg (SD=1.9, p=0.004) respectively. Patients also experienced significant visual improvement from pre-phacoemulsification BCVA logMAR 1.58 (SD=1.24) to post-PPV BCVA logMAR third month 0.54 (SD=0.41, p0.00) and sixth month 0.40 (SD=0.29, p=0.003) respectively. More than half of patients achieved good post PPV BCVA equal to or better than logMAR 0.3 (n=17, 56.7%). **Conclusion:** Patients with dropped nucleus post-PPV may achieve significant improvement in the final visual acuity and pre-operative high IOP is reversible post PPV.

# Intravitreal ranibizumab injections analysis in Hospital Melaka; assessment of clinical indications, laterality, clinical effectiveness and complications

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## ABSTRACT

**Objective:** To document demographic data, clinical indications, laterality, clinical effectiveness and complications of intravitreal injection of ranibizumab. **Method:** A retrospective review of 535 intravitreal ranibizumab 0.5 mg injections from 1st January 2016 till 31st December 2017 performed in Hospital Melaka. Patients received three intravitreal ranibizumab injections over three consecutive months were recruited for the assessment of clinical effectiveness. Clinical effectiveness measured objectively by central macular thickness (CMT) using optical coherence tomography (OCT) and subjectively by visual acuity (VA). The mean changes of CMT and VA between pre-treatment and 1-month post 3 monthly intravitreal ranibizumab injections were calculated. **Results:** A total of 165 eyes from 118 patients received intravitreal ranibizumab injections between January 2016 and December 2017. Clinical indications were documented. 47 patients received bilateral intravitreal injections. 85 out of 165 eyes were recruited in the assessment of clinical effectiveness. The mean CMT reductions were statistically significant in 3 groups; BRVO (n=7), DME (n=58) and wet ARMD (n=9) (p-value 0.05). There was a certain trend toward significance in the mean reduction of CMT in CRVO group (p-value =0.079). The mean VA (logMAR) improved significantly (p-value= 0.02, 0.001, 0.01 respectively) from baseline for 3 groups; BRVO, DME and wet ARMD. There was no statistically significant difference in the mean VA changes in CRVO group (p-value =0.4). No documented adverse event or complication. **Conclusion:** Intravitreal ranibizumab 0.5 mg therapy for multiple clinical indications was well tolerated over 3 months with improvement in visual acuity and central macular thickness.

## KEY WORDS:

*Intravitreal ranibizumab, laterality, clinical effectiveness*

# Leucocoria as a presentation of bilateral familial exudative vitreoretinopathy

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## ABSTRACT

**Objective:** To describe a case of Familial Exudative Vitreoretinopathy (FEVR) that can be mistaken as Persistent Hyperplastic Primary Vitreous (PHPV) or Retinoblastoma (RB). **Method:** a Case report. **Results:** A 3 months old premature baby was referred to the Paediatric Ophthalmology Department, UMMC with the diagnosis of right eye Retinoblastoma after undergoing Examination under Anaesthesia (EUA) at the referring centre. He presented with leucocoria, buphthalmos and mild proptosis of the right eye. In PPUM, B-scan ultrasonography of the right eye showed lesions behind the lens and on the retina with a strand connecting the 2 lesions with no calcification, and Magnetic Resonance Imaging of the Brain and Orbit was reported as right eye PHPV with retinal detachments and chronic subretinal or vitreous haemorrhage. Thus the diagnosis was revised to a differential between PHPV and FEVR. The patient underwent another EUA, which revealed cataractous lens with corneal lenticular touch and retinal detachment of the right eye. Fundus examination of the left eye showed peripheral fibrous traction with extensive exudates at the periphery. Based on the clinical findings during the EUA, the diagnosis of bilateral eyes FEVR was made, with the right eye at stage 5 and the left eye at stage 4B. The left eye underwent laser treatment during the EUA, and the patient was referred to Hospital Kuala Lumpur vitreoretinal team for further management of the right eye. **Conclusion:** FEVR is a rare disease which can manifest as leucocoria. A thorough and careful examination is important to differentiate it from other causes of leucocoria and for initiation of appropriate treatment.

## KEY WORDS:

*Familial exudative vitreoretinopathy*

## Lights off, lights on: Amaurosis fugax in polycythemia, can venesection help?

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### ABSTRACT

**Objective:** We report a patient with amaurosis fugax and polycythemia who had improvement in ocular symptoms following venesection. **Method:** Case report. **Results:** A 29-year old male doctor had polycythemia and cerebellar infarct in the posterior inferior cerebellar artery and anterior inferior cerebellar artery territories. He underwent posterior fossa decompression and external ventricular drainage due to significant hydrocephalus. Computer tomography angiography (CTA) showed slightly smaller vertebral artery calibre over the right side representing hypoplastic changes. Ultrasound carotid Doppler and echocardiogram were normal. He presented 2 years later with 6 months sudden onset bilateral transient loss of vision 2-3 episodes a week, each episode lasting 15-20 minutes with slow recovery to normal vision and worsened when he was tired. There were no other ocular symptoms. Ocular and neurological examinations were otherwise unremarkable. No cerebellar signs were elicited. He underwent venesection 2 times within a month. Following each episode of venesection, there was improvement in ocular symptoms. Currently the frequency of transient vision loss had been reduced from 2-3 episodes every week to once a month. JAK2 mutation test for polycythemia rubra vera, anti-cardiolipin antibodies, and anti-beta-2-glycoprotein-1 were negative. **Conclusion:** Transient visual loss symptoms of amaurosis fugax may be improved with venesection in patients with polycythemia.

### KEY WORDS:

*Amaurosis fugax, polycythemia, venesection*

## Long-standing intraocular foreign body with no ocular inflammation - A case series

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Universiti Sains Malaysia

### ABSTRACT

**Objective:** To report two cases of long-standing intraocular foreign body (IOFB) with no ocular inflammation. **Method:** Case series. **Results:** Case 1- A 53 years old man, presented with reduced vision right eye (RE) for two months. He had a history of foreign body entered his RE during welding about 15 years ago; which he did not seek any treatment. On examination, RE vision was hand movement with white cataract. There were cornea scar and iris sphincteric tear at 9 o'clock. Left eye (LE) was unremarkable with vision 6/6. Intraocular pressure was normal bilaterally. Right phacoemulsification was performed two weeks later. Intraoperatively noticed metallic staining at the peripheral anterior capsule and a small metal piece intralenticularly. Posterior capsule was intact. Post-operatively vision was 6/6. Fundus was normal, no IOFB seen. Case 2- 18-year-old man, presented with LE foreign body sensation for one month. He had a history of pricked by a mechanical pencil at the age of 12; which was ignored. On examination, both visions were 6/6. There was a foreign body partially embedded in the cornea at 5 o'clock near the limbus, with some part of it exposed. Conjunctival fibrosis was seen surrounding the area. There was no infiltrate and no anterior chamber reaction. X-ray orbits showed no IOFB seen. During foreign body removal, 2mm broken pencil lead was removed. Post-operatively vision was 6/9, without signs of inflammation. **Conclusion:** This case series shows that long-standing IOFB may not cause serious ocular inflammation. Nevertheless, a thorough examination during a presentation is crucial to avoid serious complication of IOFB especially one containing iron that can cause siderosis bulbi.

## Lumpy bumpy eye surgery!

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### ABSTRACT

**Objective:** To report a rare case of conjunctival subepithelial inclusion cyst post strabismus surgery. **Method:** Case report. **Results:** A four-year old patient with decompensated alternating exotropia underwent uneventful bilateral medial rectus recession of 4.5mm (limbal incision). At one month post-surgery patient was orthophoric and doing well. Four months later, patient was developed right eye nasal conjunctival swelling which progressively increased in size. Patient was given steroid-antibiotic eyedrops (Maxitrol) for one month. The swelling however showed no resolution. Complete surgical excision of the swelling was done and the sample measuring 5.0mm x 5.0mm x 3.0mm was sent for analysis. Histopathological examination reported dense fibrotic tissue surrounding a cystic structure which was lined by conjunctival epithelium. Findings were consistent with conjunctival subepithelial inclusion cyst. Post-operative review showed complete resolution of the lesion and patient remained orthophoric. **Conclusion:** Careful and complete excision of conjunctival subepithelial inclusion cyst post strabismus surgery is essential to prevent recurrence and accidental injury to extraocular muscles.

### KEY WORDS:

*Conjunctival cyst, strabismus surgery*

## Managing choroidal melanoma with vitreous seeding

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### ABSTRACT

**Objective:** To report a rare case of malignant choroidal melanoma with vitreous seeding. **Method:** Case report. **Results:** A 71 year old gentleman with underlying hypertension, dyslipidaemia and atrial fibrillation on warfarin therapy presented with gradual blurring of vision in the right eye for 6 months, associated with loss of weight and loss of appetite. There was no family history of malignancy. On examination, his best corrected visual acuity on the right eye was 6/60 and 6/12 on his left eye. Anterior examination of the right eye had no significant abnormalities. On fundus examination, an elevated hyperpigmented choroidal mass measuring 4 disc diameters was seen temporal to the fovea, with underlying subretinal fluid and overlying orange pigments. There was also presence of vitreous seeding over the tumour. Examination of the left eye was unremarkable. B-scan ultrasonography of the right eye revealed a collar stud shaped choroidal mass with low internal reflectivity and presence of vitreous opacities. A computed tomography of the brain and orbit reported a right choroidal tumour measuring 7.0mm X 5.0mm, with thickening of the adjacent choroid. Systemic examination in this patient was normal and our investigations exclude any metastasis from other organs. Right eye enucleation was performed. **Conclusion:** Patients with choroidal melanoma should be examined closely for vitreous seeding. B-scan ultrasonography and cytological studies of vitreous aspiration may be helpful in confirming the presence of vitreous extension. Enucleation of the eyeball in a case of choroidal melanoma with vitreous seeding, irrespective of the tumour size, is recommended to improve survival prognosis.

### KEY WORDS:

*Choroidal melanoma, vitreous seeding, enucleation*

# Medical treatment of sight-threatening thyroid eye disease: When 3 days of 1 gram methylprednisolone is not enough

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Hospital Sibu, Kementerian Kesihatan Malaysia

## ABSTRACT

**Objective:** To report a case series of sight-threatening thyroid eye disease which needed alternate regimen of glucocorticoid therapy. **Method:** Case series. **Results:** Sight-threatening thyroid eye disease (TED) secondary to dysthyroid optic neuropathy can happen regardless of patient's thyroid status and should be recognized early. Glucocorticoids remain the mainstay of medical therapy in managing active sight-threatening TED but there are numerous glucocorticoid treatment regimens up to date. Our common standard practice is the administration of 1g intravenous methylprednisolone for 3 consecutive days. We report two cases of severe TED patients who relapsed during the tapering phase after 3-day treatment of pulsed intravenous methylprednisolone. Subsequently, both patients received a different glucocorticoid treatment regimen of weekly intravenous methylprednisolone 0.5g for 6 weeks followed by 0.25g weekly for another 6 weeks. This case series will highlight and discuss the progress, outcomes and challenges encountered during the course of treatment for both patients. **Conclusion:** Intravenous glucocorticoid is a crucial treatment used to decelerate disease activity in patients with sight-threatening TED. An alternate regimen consisting of 12 weekly infusions should be considered in patients that relapse after a short course of 1g methylprednisolone for 3 consecutive days before considering surgical orbital decompression.

## KEY WORDS:

*Thyroid eye disease, glucocorticoid therapy*

# Not a usual viral keratouveitis? Think CMV!

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## ABSTRACT

**Objective:** To report a case of right eye CMV keratouveitis which responded well to topical ganciclovir gel 0.15%. **Method:** Case report. **Results:** We report a case of a 67-year-old immunocompetent gentleman who was treated as right eye recurrent keratouveitis, not resolved with oral Acyclovir and topical steroid. He was covered for low grade chronic endophthalmitis, given a course of intravitreal amphotericin-B, three courses of intravitreal ceftazidime and vancomycin. However, his condition didn't improve. His first aqueous tap for HSV-1 and HSV-2, bacterial and fungal cultures were negative. His second aqueous tap was performed 3 months later. This time, CMV DNA was detected with viral load of 3.59 million IU/ml. He was then treated as CMV keratouveitis. He was prescribed topical ganciclovir gel 0.15% 5 times per day for 3 months, together with topical steroid. After 3 months, he was maintained with the gel tapered down to 3 times per day for a month. Four months later, his right eye improved from vision of CF to 6/9. His cornea was initially oedematous diffusely with many pigmented kerato-precipitates. During his last visit, his cornea was clear with only few fine keratic precipitates remaining, anterior segment was quiet. **Conclusion:** Cytomegalovirus may cause retinitis, iritis, trabeculitis, and keratitis in immunosuppressed and immunocompetent patients. Often misdiagnosed as herpes simplex or herpes zoster, patients experienced unnecessary treatments. Systemic or intravitreal ganciclovir treatment of CMV keratouveitis is expensive and the risk of toxicity is high. This is a report of proven CMV keratouveitis highly responsive to topical ganciclovir gel 0.15%.

## KEY WORDS:

*Cytomegalovirus keratouveitis, topical ganciclovir gel 0.15%*



# Ocular burkholderia pseudomallei, rare variant in presentation: A case series

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Universiti Sains Malaysia

## ABSTRACT

**Objective:** To report three cases of different rare ocular presentations in patients with positive melioidosis serology in Pahang state. **Method:** Retrospective Case series **Results:** Case 1: 32 years old Malay gentleman, presented with sudden onset painless, left eye reduced vision with preceding history of swimming in a river in Pahang state. At presentation, visual acuity was 6/6 OD and HM OS. Anterior segment examination revealed left eye conjunctival injection, anterior chamber cells 4+. B scan showed features of choroidal abscess with inferior retinal detachment. All investigations were negative except for his melioidosis serology which was positive. He was treated with intravenous ceftazidime and was referred to vitreoretinal team for unresolved vitritis. However, patient refused for surgery. Case 2: 14 years old Malay gentleman, complaining of left eye painless, reduced vision with preceding history of parotid gland swelling. His visual acuity was 6/6 OD, and 6/36 OS. Dilated fundus examination left eye showed optic disc swelling with macula star. Infective workup showed melioidosis IgM positive. Intravenous ceftazidime and oral prednisolone were commenced and he responded well with treatment. Case3: 10 years old Malay Boy, presented with sudden onset painless, left eye blurring of vision. His visual acuity was 6/6 OD and CF OS. Fundus left eye showed optic disc granuloma and subtotal exudative retinal detachment inferiorly with area of vasculitis. He also successfully treated with intravenous ceftazidime followed by oral Azithromycin. **Conclusion:** Ocular melioidosis should always be a consideration in any patient suspected with infectious uveitis. Thus high index of suspicion is required in order to initiate early and prompt treatment.

## KEY WORDS:

*Ocular melioidosis, Burkholderia pseudomallei*

# Ocular presentations as doorway to diagnose lung carcinoma

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Pusat Perubatan Universiti Malaya (PPUM)

## ABSTRACT

**Objective:** To report on eye manifestations of metastatic lung carcinoma among two patients in Sarawak General Hospital. **Method:** Case series. **Results:** The incidence of ocular metastases among patients with lung cancer has been reported to be 11%. Metastasis can occur in adnexa, globe, orbit, and optic nerve. We are reporting two cases of metastatic lung carcinoma in which patient presented with ocular manifestations first which on further work out confirmed the primary diagnosis. Patient A, a 75 year old lady presented with one month history of left eye partial ptosis associated with 3rd and 4th cranial nerve palsy. Contrast-Enhanced Computed Tomography (CECT) of orbit showed left superior orbital fissure lesion. As we proceeded with CT thorax, abdomen and pelvis it revealed multiple lung modules hence metastatic lung carcinoma was diagnosed. Patient B, a 53 year old gentleman complained of left eye painless blurring of vision for two weeks duration associated with floaters. Fundus examination showed exudative retinal detachment. CECT of orbit exhibited left enhancing intraocular lesion. CT Thorax, Abdomen and Pelvis confirmed right lung carcinoma metastases. **Conclusion:** These case series illustrate that metastatic lung carcinoma has varied presentations in the eye. A high index of suspicion of metastatic lung carcinoma to the orbital region is crucial especially when managing patients with risk factors such as elderly and chronic smokers. Manifestations of metastatic lesions in the eye can be a doorway to confirm an undiagnosed malignant condition especially if visual signs and symptoms precede the diagnosis, such as illustrated in these cases.

## KEY WORDS:

*Metastasis, lung carcinoma, retinal detachment, ptosis, cranial nerve palsy*

## Ocular trauma in Miri general hospital: An 8-year retrospective study

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### ABSTRACT

**Objective:** To determine the epidemiological characteristics including types, risk factors and outcome of ocular trauma in the Eye Clinic of Miri General Hospital. **Methods:** A retrospective study of 342 patients presented with ocular injury to the Eye Clinic of Miri General Hospital from 2010-2017 was conducted. Demographic data, causes and nature of ocular injuries, as well as final visual acuity (VA) were recorded. **Results:** Of the 342 cases of ocular trauma, 70 were open globe injuries and 272 were close globe injuries. More men were inflicted with ocular trauma as compared to women (91.5% versus 8.5%). The most common age group affected were those between 21 and 40 (40.5%). Work related injury was most common. There were 212 eyes with final VA of  $\geq 6/12$ , 6/12 - 6/60 in 73 eyes and  $\leq 6/60$  in 56 eyes. Thirteen cases were referred for primary or secondary vitreo-retinal surgery. Two cases of post-trauma endophthalmitis were recorded. **Conclusion:** This study provides the epidemiological data of ocular trauma in Miri General Hospital, the referral centre for ophthalmology cases in the northern part of Sarawak. Immediate comprehensive primary management and secondary rehabilitation are mandatory in these cases. Primary prevention should be advocated in our communities to minimize the impact of ocular trauma.

### KEY WORDS:

*Ocular trauma, risk factors, outcome*

## Paediatric endophthalmitis: A retrospective case series study in Hospital Kuala Lumpur

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### ABSTRACT

**Objective:** To report the clinical profile and outcomes of paediatric endophthalmitis in Hospital Kuala Lumpur. **Method:** This is a retrospective review of patients for endophthalmitis from year 2015-2017 whereby age, clinical features, aetiology, microbiological spectrum and management as well as visual outcomes were analysed. **Results:** A total of 6 eyes out of 6 children presented to us with varieties symptoms and presentation of endophthalmitis over 3 years. They range from 5 month to 6 year old. There are equal percentage of aetiologies among trauma (33.33%), post ocular surgery (33.33%) and endogenous in origin (33.33%). Out of 6, 3 cases had positive cultures of coagulase negative staphylococcus, *Enterobacter* sp., and streptococcus pneumonia respectively. Vitrectomy was performed in 4 cases. All cases also received intravitreal antibiotic except 1. Unfortunately, one case was complicated with retinal detachment. The visual outcomes were analysed and it was found that majority were perception of light (66.67%) and non-perception to light (33.33%). **Conclusion:** Paediatric endophthalmitis is a rare but a serious sight-threatening condition which can manifest in different presentation. Despite of aggressive management with antibiotic and vitrectomy the visual prognosis was found to be generally poor.



## Paediatric surgical 3rd nerve palsy: An unexpected cause

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### ABSTRACT

**Objective:** To report a rare case of surgical 3rd nerve palsy that occurred in a young boy. **Method:** Case Report **Results:** A 13-year-old boy presented with sudden onset of left eye pain for two months associated with a left-sided headache and progressive drooping of the left eyelid. This was followed by episodes of nausea and vomiting for 3 days. His right and left visual acuity were 6/6 and 6/15 respectively. Examination of the left eye revealed an incomplete ptosis, a 6mm dilated pupil and positive relative afferent pupillary defect whilst examination of the right eye was normal. Extraocular movements of the left eye were restricted in all gazes except the lateral gaze. Fundus examination of both eyes was unremarkable. Humphrey visual field test showed incomplete bitemporal hemianopia. Computed tomography (CT) and CT angiography of the brain revealed a solid-cystic sellar mass with suprasellar and left cavernous sinus extension. Subsequent magnetic resonance imaging confirmed the diagnosis of pituitary macroadenoma measuring 3.5 x 4.6 x 3.1 cm. Further blood investigations lead to the diagnosis of prolactinoma with a raised serum prolactin level of 4005.9µg/L. The boy was treated with oral bromocriptine for 10 weeks and responded tremendously to the treatment with complete resolution of all signs and symptoms. **Conclusion:** Pituitary adenomas are a relatively common intracranial lesion with prolactinomas constituting the bulk of it. They frequently occur in middle-aged females with a female-to-male ratio of 10:1. In the paediatric-adolescent age group, prolactinomas comprise less than 2% of all intracranial tumours. This case reports an unusual presentation of prolactinoma in a boy causing compressive optic neuropathy and surgical third nerve palsy.

### KEY WORDS:

*Prolactinoma, paediatric, surgical third nerve palsy, pituitary macroadenoma*

## Paediatric orbital wall fracture and its associated cranio-facial injury in Hospital Universiti Sains Malaysia: 3-year review

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### ABSTRACT

**Objective:** To describe clinical characteristic and association of the severity of orbital wall fracture with cranio-facial injuries in paediatrics patients. **Methods:** A retrospective study was conducted from 2016 till 2018 at Hospital Universiti Sains Malaysia, Kelantan. Patients with orbital wall fracture below age 18 years old were recruited and grouped into four groups based on number of orbital wall involved. **Results:** A total of 43 patients with mean 14.2 years old (3.44). The majority (90.7%) were boys. Group one with one orbital wall injury consist of 20.9% (9 patients), group two had 27.9% (12 patients), while group three and four made up of 32.6% (14 patients) and 18.6% (8 patients) accordingly. Among them 69.7% (30 patients) had intracranial injury, 58% (25 patients) had facial bone injuries, and 27.9% (12 patients) sustained base of skull fracture. There were a significant association between the number of orbital wall fractures with intracranial injury ( $p=0.040$ ) and base of skull fracture ( $p=0.041$ ). No statistical association was observed between number of orbital wall fracture with facial bone fracture ( $p=0.083$ ). **Conclusion:** The majority patients sustained orbital wall trauma were boys. The main causes of paediatric orbital wall fractures were motor vehicle accidents, and number of orbital wall was significantly associated with intracranial injury and base of skull fracture. Thus urgent CT imaging of orbit inclusive of brain and facial bones is mandatory once there is a suspicion of an orbital wall fracture. Early detection of intracranial involvement and timely referral to neurosurgery team is indicated.

### KEY WORDS:

*Paediatric, orbital wall fracture, intracranial injury, facial, base of skull fracture*

## Post-traumatic orbital osteoma in the frontal bone - To excise or not?

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### ABSTRACT

**Objective:** To report a case of orbital osteoma post trauma. **Method:** Case Report **Results:** Osteoma is slow growing benign tumour and are almost exclusively found in the head and neck region. In this report we present case of a 54 years old woman with underlying RE recurrent anterior uveitis complained of a slow growing right eyebrow mass for the past 2 years. She had a trauma to the right eyebrow 10 years ago. Upon examination visual acuity was 6/6 bilaterally and RAPD was negative. A non-tender palpable mass was felt laterally to the right eyebrow measuring 0.5cm. Mass was hard with no overlying skin changes. Anterior segment examination was normal except she had posterior synechiae from 3-7 o'clock over her RE and fundus examination of both eyes were unremarkable. CECT orbit showed a right hyperostosis of lateral wall of the orbit. She underwent an excisional biopsy of exostosis of right frontal bone at 1cm from superolateral orbital rim. HPE was conclusive of osteoma. In peripheral osteomas, a combination of trauma and muscle traction is a common cause. Subperiosteal bleeding from trauma combined with an elevated periosteum from the muscle traction force can cause an osteogenic reaction. **Conclusion:** Peripheral osteoma of the frontal bone with a history of trauma is a rare finding, thorough history-taking, physical examination, and preoperative imaging tests are needed for patients with a history of trauma to rule out osteoma. Early intervention of removal is suggested for cosmetic reason.

### KEY WORDS:

*Osteoma, trauma, exostosis, eyebrow mass, orbit*

## Posterior segment ocular cysticercosis: A rare case with secondary angle closure glaucoma

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### ABSTRACT

**Objective:** To report a rare case of ocular cysticercosis. **Method:** Case report **Results:** A 47 year-old Malaysian Muslim presented with left eye pain and blurring of vision associated with left sided headache for 1-day. Visual acuity was hand movements in left eye and 6/9 in right eye. Left eye anterior segment examination showed cornea oedema, shallow anterior chamber with intraocular pressure (IOP) of 62mmHg. Right eye anterior segment was normal. He was treated as left eye acute angle closure glaucoma and laser peripheral iridotomy was done. After reduction of IOP with clearer cornea, left eye posterior segment revealed free floating vitreous cyst, multiple subretinal cysts and extensive retinal pigment epithelium atrophy over the inferior half retina. A small subretinal cyst was identified over the right eye posterior segment. Diagnosis of ocular cysticercosis was made after joint consultation with the medical retina team. Albendazole was started for a total period of six weeks coupled with steroids in view of known inflammatory reactions with antihelminthic therapy. Patient underwent left eye pars plana vitrectomy to remove the vitreous cyst. However, histopathological report for left vitreous cyst did not yield parasitic body due to suboptimal specimen, thereby resulting in diagnosing ocular cysticercosis in endemic Muslim population to be challenging although the presence of cysticercus intravitreally or subretinally is pathognomonic. **Conclusion:** Ocular cysticercosis is a preventable disease and may results in significant ocular morbidity. We concluded the importance of high index of suspicion in diagnosing ocular cysticercosis and prompt eradication treatment without tissue diagnosis for better visual outcomes.

### KEY WORDS:

*Cysticercosis, ocular cysticercosis, subretinal cyst, vitreous cyst*

## Presumed tenofovir-induced ocular toxicity

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Pusat Perubatan Universiti Kebangsaan Malaysia, Universiti Kebangsaan Malaysia

### ABSTRACT

**Objective:** To report an unusual case of retinal toxicity presumed to be caused by Tenofovir, a nucleoside analogue. **Method:** A 45-year-old gentleman, with underlying hypertension and chronic Hepatitis B with liver cirrhosis since 2006, presented to us with right eye central blurring of vision for three weeks. There was no other significant history other than the fact that he has been taking Tenofovir which was started by his hepatologist for Hepatitis B. On examination, his best corrected visual acuity was 6/9 and 6/6 in the right eye and left eye respectively. Anterior segment examination was normal bilaterally. Fundus examination of the right eye revealed subretinal oedema. Posterior segment of the left eye was normal. He was diagnosed with right central serous chorioretinopathy. He had four recurrences within the last six years, between 2012 and 2018. On his latest review in May 2018, his right fundus revealed subretinal oedema with pigmentation in the macula. Left fundus also revealed pigmentation in the macular area with no oedema. **Results:** Optical coherence tomography (OCT) of the right eye demonstrated subretinal fluid with pigment epithelium detachment and outer retinal atrophy while OCT of the left eye demonstrated outer retinal atrophy not involving the fovea. **Conclusion:** Ophthalmologists should be aware of the potential risk of retinal toxicity in patients on Tenofovir.

### KEY WORDS:

*Tenofovir, macular oedema, retinal atrophy*

## Primary vitreoretinal lymphoma (PVRL): A case report

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Hospital Melaka, Kementerian Kesihatan Malaysia

### ABSTRACT

**Objective:** To report a rare case of Primary Vitreoretinal Lymphoma **Method:** Case Report **Results:** A 76-year-old lady presented with left eye blurring of vision for 5 months. Her visual acuity was counting finger over the left eye and 6/12 over the right eye. Left eye anterior chamber showed presence of cells. There was no fundus view over the left eye due to dense vitritis and the presence of asteroid hyalosis. She was initially treated for panuveitis and chronic endophthalmitis in view of a left cataract surgery performed 18 months earlier. However, there was no improvement. Left eye vitreous cytology was done later and showed presence of atypical lymphoid cells. Subsequently, a course of intravitreal methotrexate was commenced. Magnetic resonance imaging (MRI) of the brain and orbit shows no central nervous involvement. Left eye vision improved to 6/24 after 10 doses of intravitreal methotrexate. **Conclusion:** PVRL remains not only a challenging masquerade due to a wide variety of clinical presentation but also, a potentially fatal intraocular tumour if diagnosis is delayed. Therefore, a high index of suspicion of PVRL is mandatory in elderly patients presenting with panuveitis.

# Removal of a retained wooden intraorbital foreign body using endoscopic guidance

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## ABSTRACT

**Objective:** Wooden intraorbital foreign bodies (IOFBs) tend to break easily during surgical removal leaving behind splinters. Therefore, identifying the exact location of IOFBs using CT scan and endoscopy are important during removal. As wooden IOFBs are prone to infection, proper wound exploration and debridement, including antibiotics administration is a must to minimize postoperative complications. **Method:** We present a case of a 7-year-old boy with an injury on the right eye from a bamboo stick. Right eye examination showed the visual acuity was 2/60 with a normal IOP. Conjunctival and ciliary injection, chemosis were found. The foreign body was barely seen in the medial inferior of the right eye. Orbital CT scan confirmed the foreign body and showed a fracture of the anterior and lateral wall of the right maxillary sinus. Endoscopic examination of the right nasal cavity revealed a foreign body appeared extending from medial concha posteroinferiorly. The foreign body was pushed towards conjunctiva using rasparator with endoscopic guidance and was removed completely through the conjunctiva. Peritomy was performed followed by globe exploration. Sclera was found intact during exploration with no rupture identified. Postoperatively, the patient was treated with intravenous antibiotics. **Results:** Identification of foreign body was confirmed using an orbital CT scan. We successfully extracted a 5.5 x 1.2 cm wooden IOFB using endoscopy to prevent causing further orbital injury, proceeded with wound exploration in search of splinters. Visual acuity showed improvement after surgery. **Conclusion:** CT scan and endoscopic-guided surgery are useful in identifying and removing IOFBs. Wound debridement and exploration are necessary to prevent infection and detecting any splinters.

## KEY WORDS:

*Endoscopy-guided surgery, intraorbital foreign body, wooden foreign body*

# Retrospective study of predisposing factors, microbiological spectrum, infective focus and treatment outcomes of endogenous endophthalmitis over a 6-year period

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## ABSTRACT

**Objective:** To evaluate the systemic predisposing factors, causative organisms, infective sources and outcomes of endogenous endophthalmitis in Hospital Pulau Pinang over a 6 years period. **Method:** A retrospective study of consecutive cases of endogenous endophthalmitis in Hospital Pulau Pinang from May 2012 to May 2018. **Results:** A total of 20 eyes of 18 patients (two with bilateral involvement) were identified to have endogenous endophthalmitis during the study period. The mean age was 53.5 years old (range from 7 months to 81 years old). There were 55.5% males. There were Malay (66.7%), Chinese (22.2%) and Indian (11.1%). The systemic predisposing factors included diabetes mellitus (66.7%), liver abscess (16.7%), malignancies (11.1%) and others (5.5%). Gram-negative organisms were found to be the causative microorganism in 8 cases (44.4%) and gram-positive organisms in 6 cases (33.3%). The most common microorganisms were *Klebsiella pneumonia* (3 cases) and Group B streptococcus (3 cases), followed by *Burkholderia pseudomallei* (2 cases) and *Escherichia coli* (2 cases) and others. Infective foci were identified in 14 patients. The common primary focus was the urinary tract (15%) and lungs (15%) and followed by liver (10%) and brain (10%). Vitrectomy was performed in 4 eyes (20%) and 4 eyes (20%) were eviscerated, 8 eyes (40%) improved with medical treatment. Visual outcome at follow up was generally poor. 9 eyes (45%) had VA of NPL, 7 eyes (35%) between hand movement and perception of light. **Conclusion:** Our series showed diabetes mellitus and gram-negative bacteria were common from varies infective foci. Despite treatment, the visual outcome of our series was generally poor.

## Right carotid-cavernous fistula (CCF)

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Hospital Umum Sarawak, Kementerian Kesihatan Malaysia

### ABSTRACT

**Objective:** To report a case of successfully treated indirect carotid-cavernous fistula. **Method:** a Case report. **Results:** A forty-nine years old gentleman with underlying hypertension and dyslipidaemia complained of the right eye (RE) persistent, painless redness for 3 months duration. RE redness was associated with a blurring of vision, throbbing headache and tearing. Otherwise, no history of head injury or trauma prior to illness. On examination, RE best-corrected vision acuity was 6/18 and left eye was 6/9. The relative afferent pupillary defect was negative. Both eyes extraocular movements were full. RE examination noted to have proptosis, dilated and tortuous episcleral vessels with corkscrew vessels. RE fundus showed a hyperaemic disc with mild dilated and tortuous vessels. RE Intraocular pressure was normal. Left eye examination was unremarkable. Computed Tomography Angiogram and Digital subtraction angiography cerebral showed right indirect carotid-cavernous fistula. The patient subsequently underwent embolization of right indirect carotid-cavernous fistula by an interventional radiologist. The RE redness and proptosis has fully recovered with normal fundus and good vision. **Conclusion:** Patient with indirect CCF generally has an excellent outcome with prompt diagnosis and radiological intervention.

## Study of early changes in intraocular pressure following phacoemulsification

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### ABSTRACT

**Objective:** To evaluate early postoperative changes in intraocular pressure (IOP) following phacoemulsification and intraocular lens (IOL) implantation. **Method:** This retrospective and observational study included 100 patients with normal IOP underwent uneventful standard phacoemulsification procedure for senile cataracts at Sarawak General Hospital over a period of six months from July 2017 to December 2017. Patient's data were retrieved from Eye Clinic records. All patients were checked for IOP with Goldmann tonometry during pre-operative assessment and one month postoperatively. Patients with pre-existing IOP related ocular disease or intraocular surgery were excluded. Effects of age, gender, comorbidity of diabetes mellitus and hypertension, eye laterality, ocular axial length and pre-operative IOP on post-operative IOP reduction were analysed. **Results:** Phacoemulsification was found to reduce IOP by mean of 1.07 mmHg, which was statistically significant ( $P < 0.001$ ). A larger IOP reduction was seen in cases with a higher pre-operative IOP ( $P < 0.001$ ). No statistically significant differences were identified in age, gender, comorbidity of diabetes mellitus or hypertension, eye laterality, and ocular axial length in correlation with postoperative IOP reduction ( $P > 0.05$ ). **Conclusion:** Phacoemulsification had a significant IOP-lowering effect in normal subjects, in particular in higher pre-operative IOP. There was no correlation between age, gender, comorbidity of diabetes mellitus or hypertension, eye laterality, and ocular axial length to IOP reduction following phacoemulsification.

### KEY WORDS:

*Intraocular pressure, phacoemulsification, cataract*

## Successful removal of intraorbital metal plate and corneal intrastromal glass particle foreign bodies

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### ABSTRACT

**Objective:** Orbital trauma with the foreign body may result in damage to the eye or orbital contents. The nature of the foreign body determines the clinical treatment, whether it is organic or inorganic. However, foreign body extraction is mandatory regardless of its type. **Method:** a Case report. A 26-year-old male came with a blurry vision and bled following penetrating orbital trauma from a plate of a metal grinder. Patient's left forehead and palpebra were injured. Left eye examination showed 6/60 visual acuity, 5 cm full thickness palpebra laceration with visible frontal sinus to the orbital roof and 2 cm partial thickness laceration with inferior displacement of the eyeball. There were 5 cm lagophthalmos with 4 cm corneal exposure, decreased pupillary reflect, limitation of ocular movement and retained corneal intrastromal glass particle foreign bodies. Orbital CT scan showed tubular-shaped metal foreign body penetrating from left superior palpebra to left frontal sinus with a comminuted fracture. The patient was diagnosed with left palpebra lacerations, intraorbital metal and corneal intrastromal glass particle foreign bodies. The patient also had left eye exposure keratitis. Foreign bodies extraction wound debridement and laceration repair were performed. **Results:** Both metal plate and particle glass foreign bodies were successfully removed. Three weeks after surgery, ocular movement, visual acuity, and pupillary reflect improved. **Conclusion:** Throughout examination with orbital CT scan is crucial in orbital trauma. In the surgical removal of foreign bodies, preventing infection, preserving eye function and aesthetic outcome need to be done simultaneously.

### KEY WORDS:

*Inorganic, metal plate, glass particle, intraorbital foreign body*

## Surgically induced scleritis: A 2-year experience

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### ABSTRACT

**Objective:** Surgically induced scleritis is not an uncommon complication following ocular surgeries. The purpose of this study is to review the clinical experience of surgically induced scleritis referred to or presented to Hospital Selayang. **Method:** A retrospective observational case series review of surgically induced scleritis in Hospital Selayang from 2016 to 2017. **Results:** There were 16 patients involving 16 eyes in this study, aged between 29 to 86 years old. All patients showed unilateral eye involvement. In post-retinal surgery; scleral buckle and cryotherapy account for 18.75% whereby pars plana vitrectomy accounts for 6.25%. Our case series showed that glaucoma filtering surgery contributed to the highest cause (25%). Other causes are cataract extraction (18.75%), pterygium excision (18.75%), and strabismus repair surgery 6.25% respectively. The onset of disease ranged from 5 months to 20 years post initial surgery. It encompassed a spectrum of disease entity ranging from diffuse, non-necrotizing to localized and necrotizing. Recurrences were not infrequent. Patients with no pre-existing ocular comorbidities showed fairly stable and good visual outcome of 6/24 or better when treated accordingly. 3 patients had poor visual outcome owing to the progression of underlying glaucoma in 2 patients, and 1 patient had pre-existing macula scar secondary to myopic maculopathy. **Conclusion:** In this case series, glaucoma surgeries with intraoperative cytotoxic agent usage had shown as the leading cause of surgical induced scleritis. Knowledge pertaining to its occurrence and various clinical presentations in relation to the type of surgeries will impose a higher understanding of the disease and its impact on visual prognosis.

### KEY WORDS:

*Surgically induced scleritis, post-operative scleritis*



## The eccentric sealant

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### ABSTRACT

**Objective:** To report a case of modified Gundersen flap as an alternative reconstructive option for penetrating corneal injury in Sandakan, a rural setting **Method:** a Case report. **Results:** A 32-year-old gentleman with a history of traumatic injury by oil palm tree branch was presented with right eye pain, redness, glare and blurring of vision for 1-week post-trauma. His right eye visual acuity was 6/36 pinhole 6/12. Slit lamp examination revealed paracentral corneal laceration wound with iris prolapsed near the limbus temporally, fibrin surrounding wound with a deep anterior chamber. B scan showed no vitreous opacity. A primary corneal tissue and suturing with iris repositioning was done but noted friable wound with corneal tissue loss and persistent leakage. A modified Gundersen flap was then performed in view of setting limitations. Postoperatively, he was put on intensive topical antibiotics, antifungal and antiglaucoma. Visual acuity for his right eye showed astounding improvement and vision regained back to 6/6. **Conclusion:** Gundersen flap can be considered as an armamentarium in the reconstruction of penetrating corneal injuries especially in remote area settings whereby corneal expertise is not accessible.

### KEY WORDS:

*Modified Gundersen flap, penetrating corneal injury*

## The understated value of gonioscopy

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### ABSTRACT

**Objective:** To emphasize the importance of gonioscopy for evaluation and diagnosis of an intraocular foreign body (IOFB). **Method:** a Case Report. **Results:** A middle-aged gentleman presented to us for evaluation of a foreign body sensation in his right eye after cutting grass utilizing a rotary lawn mower. The patient had good vision OU and no afferent pupillary defect. Slit lamp examination revealed mild conjunctival injection and a linear self-sealed corneal laceration wound measuring about 3.2mm. The anterior chamber was deep with cells of 2-3+. No obvious iris disruption, no evidence of traumatic cataract and no abnormality were detected on posterior segment examination. High degrees of clinical suspicion lead us to do a gonioscopic examination which showed a small foreign body embedded in the anterior chamber angle at 3 o'clock. The diagnosis was further confirmed with a non-contrasted CT scan of the orbits that revealed a small hyperdense foreign body medial and anterior to the lens of a right eye. Removal of the foreign body was successfully done via limbal incision entering on the temporal aspect. **Conclusion:** The role of gonioscopy is widely appreciated, particularly in the management of glaucoma; however, a valuable use of this technique needs emphasis. In some cases of ocular trauma, the area of penetration and the IOFB is not easily detected and gonioscopic examination will allow visualization of a foreign body in the anterior chamber angle, which are not demonstrable on slit lamp and indirect ophthalmoscopic examinations.

### KEY WORDS:

*Gonioscopy, intraocular foreign body, corneal laceration*

## To report a case of isolated optic neuritis as a presenting sign of latent tuberculosis in immunocompetent adult

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### ABSTRACT

**Objective:** To report a case of isolated optic neuritis as a presenting sign of latent tuberculosis in an immunocompetent adult. **Method:** a Case Report. **Results:** A 64-year-old Indian lady, presented with acute onset of left eye blurring of vision for one week. She is systemically well with the history of TB contact previously. At presentation, visual acuity on the right eye was 6/9 and left eye vision was 6/36 with positive relative afferent pupillary defect over the left eye. Light brightness and red saturation were reduced to 70% as compared to right eye with left central visual field defect. The anterior segments of both eyes were normal. Fundus examination on right eye revealed pale disc and left eye showed a hyperaemic disc with blurred disc margin and splinter haemorrhage. Systemic examination was unremarkable. CT scan result was normal. The ESR and CRP were raised. CSF was clear with normal opening revealed low glucose and normal protein. CSF TB-PCR was negative. Mantoux test showed 15mm induration. Quantiferon-TB Gold test was indeterminate. She was diagnosed with latent tuberculosis and started with oral Akurit 4. She completed a total dosage of 3g intravenous methylprednisolone and 11 days of oral prednisolone 1mg/kg. She showed improvement after on 1 month of Akurit 4. Her visual acuity on the left eye improved to 6/12. Her light brightness and red desaturation on left eye improved to 100%. **Conclusion:** Isolated optic neuritis as a presenting sign of latent tuberculosis in an immunocompetent adult is uncommon and need to emphasize for early diagnosis and initiation of treatment.

## Topical steroid in contact lens-related Acanthamoeba keratitis

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### ABSTRACT

**Objective:** To present different clinical presentations, treatment and outcome of topical steroid that worsens the contact lens-related Acanthamoeba keratitis. **Method:** a Case report. **Results:** Case 1: A 36-year old lady with a history of wearing contact lens presented with two weeks history of right eye pain associated with a blurring of vision and redness. Vision right eye recorded as 6/60 pinhole 6/24. Cornea examinations revealed the presence of subepithelial opacity centrally with perineural infiltrate. The patient was treated with topical chlorhexidine 0.02% and polyhexamethylene biguanide (PHMB) 0.02% for every two hours. Cornea culture was positive for Acanthamoeba spp. Post-treatment two weeks later her vision improved to 6/9. Case 2: A 22-year old lady, presented with one-month history of right eye redness with minimal pain and progressively worsening vision. She is also a contact lens wearer. Her vision on the right eye was perception to light (PL). Relative afferent pupillary defect (RAPD) was negative. The cornea was generally hazy with an epithelial defect and perineural infiltration. She was then treated with topical cefuroxime 5% and gentamicin 0.9% and topical chlorhexidine 0.02%. Acanthamoeba culture and polymerase chain reaction (PCR) was negative. Her vision clinically improved from PL to 6/12 after five weeks of treatment. Both patients shared a history of being treated with topical steroid prior to ophthalmology visit which worsened the eye condition. **Conclusion:** Initial diagnosis of Acanthamoeba keratitis can be challenging. However, a high index of suspicion needs to be weighed especially in contact lens-related cases. Early diagnosis and right management are necessary to hit hard on the organism.

### KEY WORDS:

*Acanthamoeba keratitis, contact lens*



# Traumatic globe luxation: A case report

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## ABSTRACT

**Objective:** To report a case of traumatic globe luxation in a 24 year old gentleman, its treatment and possible outcomes. **Method:** a Case report. **Results:** We report a case of traumatic globe luxation in a 24-year-old gentleman following a motor-vehicle accident. The patient was a front seat passenger who was ejected through the windshield upon impact with a tree. He was intoxicated upon presentation to the casualty department. The patient did not complain of any ocular pain. Examination revealed complete protrusion of the right eyeball with an intact globe. Visual acuity of his right eye was reduced to no perception to light. Plain computed tomography scan revealed the presence of localised right eye retrobulbar haemorrhage (~1.5cm) with stretched right optic nerve and right medial wall fracture. Measures to preserve and reposition the globe were taken. Right eye lateral canthotomy and cantholysis were performed. Reduction of the right eyeball was successful with the help of cotton tip applicator and traction sutures applied on the lid margin. Temporary tarsorrhaphy was applied to maintain a position of right eye globe post-reduction. **Conclusion:** Globe luxation is a rare clinical event threatens vision loss and warrants immediate intervention. Repositioning of intact, luxated globes should always be attempted as it offers cosmetic and psychological benefits to the patient despite poor visual potential.

## KEY WORDS:

*Trauma, globe luxation*

# Cataract surgeries with multifocal intraocular lens (IOL) implantation in Pusat Pembedahan Katarak Majlis Agama Islam Wilayah Persekutuan (MAIWP) - Hospital Selayang

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## ABSTRACT

**Objective:** To find out visual outcomes post cataract surgery with Multifocal IOL implantation in PPKM-HS. **Method:** an Observational retrospective case study. Data selection was taken from the Eye Clinic Management System (ECMS), duration of surgery January till December 2017. Inclusion criteria patient with no ocular co-morbid, no intra-operative complication, were operated by a single ophthalmic surgeon using phacoemulsification and postoperative refraction at 6 weeks. Pre-operative and post-operative evaluation included biometry, refraction and spectacle dependency. The data collected were analysed using SPSS version 20. **Results:** The average age that presented to PPKM-HS for multifocal IOL was 58 years old (SD=12.95). Out of 64 eyes, 53.1% were male, 50.0% were Malays, 51.6% came with severe visual impairment (6/60) and 62.5% were operated on the right eye. The most frequent type of multifocal IOL was 39.1% multifocal toric. There was a significant improvement of visual outcome  $t(64)=12.60$   $p<0.001$  and achieve target spherical equivalence  $t(64)=7.56$   $p<0.001$ . 89.1% obtained spectacle independence. A Kruskal-Wallis Test was performed and there was no correlation with the type of multifocal lens used with a visual outcome for distance  $X(64,3)=0.06$ , intermediate  $X(64,3)=0.578$  and near  $X(64,3)=0.125$ . **Conclusion:** There is a significantly good visual outcome in PPKM-HS using multifocal IOL.

## KEY WORDS:

*Cataract, multifocal, intraocular lens*

## Various clinical presentations of rhino-orbital mucormycosis

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### ABSTRACT

**Objective:** To report the variable case presentation in patients with rhino-orbital mucormycosis. **Method:** Case series of 3 patients treated at Hospital Shah Alam. **Results:** Case 1: 60-year-old Malay gentleman with diabetes mellitus (DM) presented with a headache, neck pain and left eye sudden loss of vision with complete ptosis. Ct Imaging reported as cavernous sinus thrombosis and he was treated with warfarin and intravenous methyl-prednisolone. He developed submandibular swelling and was referred to ENT where rigid nasal scope revealed left middle turbinate necrosis. Case 2: 64-year-old Chinese gentleman with undiagnosed DM presented with right eye proptosis, painless vision loss and right-sided facial swelling for 1 week. An oro-antral communication was seen on the hard palate. Referral to ENT team was done and endoscopy revealed extensive necrosis of right middle and inferior turbinate with fistula into the oral cavity. Case 3: 40-year-old Indonesian gentleman presented to Emergency Department for DKA and was intubated. He had right upper eyelid swelling and discomfort for 3 days and a bluish tinge over the medial canthus which proceed into necrotising fasciitis of the right orbit within 2 days. Right endoscopic sinus surgery done revealed black necrotic eschar at the overlying skin and necrotic nasal mucosa. **Conclusion:** Rhino-orbital mucormycosis is a life-threatening fungal infection with a predilection to the specific population such as diabetic and immunocompromised patients. Early detection, control of co-morbidities, surgical debridement and administration of systemic and local antifungal therapies are needed to avoid mortality and morbidity.

### KEY WORDS:

*Rhino-orbital mucormycosis*

## Visual outcome following posterior capsular rupture during cataract surgery in Hospital Melaka

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### ABSTRACT

**Objective:** Posterior capsular rupture (PCR) is the most common complication during cataract surgery. Improper management may affect the visual outcome. This retrospective study reviewed the visual outcome of patients that had PCR during cataract surgery in Hospital Melaka. **Method:** Records of all patients that had PCR during cataract surgery from 1st January 2014 till 31st March 2017 was traced using National Eye Database. Patients' folders were reviewed retrospectively. Data collected were demographic background, type of cataract surgery, status of surgeon, underlying ocular diseases, risks factors for PCR, visual acuity post operatively and factors that may influence patients' visual outcome. **Results:** There were 238cases (eyes) had PCR during the study period. It involved 165(69%) cases of phacoemulsification, 22(9%) cases of extracapsular cataract extraction (ECCE), 48(20%) cases of phacoemulsification converted to ECCE and three (1.2%) cases of lens aspiration. Forty one (17.2%) cases were operated by consultants, 109 (45.8%) cases by specialists, 34(14.3%) cases by gazetted specialists, 32(13.4%) cases by registrar and 22(9.2%) cases by medical officers. One hundred and fifty three cases had no pre-existing ocular diseases, 119 (78%) cases had normal vision (best corrected visual acuity-BCVA) during two months after surgery, 10(7%) cases had moderate visual impairment and four cases (2%) had severe visual impairment. **Conclusion:** Cataract surgery, even complicated by PCR, potentially render a good visual outcome.

### KEY WORDS:

*Posterior capsular rupture*

# Vitreotomy for vitreous haemorrhage in paediatric patients in Hospital Kuala Lumpur - A case series

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## ABSTRACT

**Objective:** To describe clinical profiles, aetiologies and outcome of vitreous haemorrhage in children requiring vitreoretinal surgery. **Method:** A retrospective case review of 6 children aged below 12 years, who had undergone vitrectomy for vitreous haemorrhage of various aetiologies in Hospital Kuala Lumpur between January 2018 and June 2018. **Results:** Ten eyes (6 children) were diagnosed to have vitreous haemorrhage. Vitrectomies were performed on 7 eyes for non-resolving vitreous haemorrhage obscuring fovea for more than one month duration. The mean age of these patients was 4.4 years old (ranged from 4 months to 9 years). The underlying causes of vitreous haemorrhage in these eyes included non-accidental injuries (2 eyes), retinopathy of prematurity (2 eyes), Coat's disease (2 eyes), Tersons syndrome (2 eyes), retinitis (1 eye) and one post-trabeculectomy aniridic pseudophakic with rhegmatogenous retinal detachment. At presentation, four eyes had either perception of light or hand movement vision. We were unable to record visual acuity for 2 infants. Post-vitrectomy, the eye with Coat's disease had good visual outcome with his visual acuity improved to 6/20. However, five eyes had light perception vision and one complete blindness. None required a revision vitrectomy. **Conclusion:** Vitreous haemorrhage in children is unique in aetiology. Surgical removal of non-clearing vitreous haemorrhage in paediatric age group is crucial in establishing diagnosis, treatment of underlying cause and to allow early visual rehabilitation. Visual potential in these cases depends largely on the underlying aetiology. It is worth to preserve even light perception vision as it has significant impact on a child's development.

## KEY WORDS:

*Vitreous haemorrhage, paediatric, vitrectomy*

## A boat not to miss

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### ABSTRACT

**Objective:** Clinical suspicion of giant cell arteritis (GCA) should be high in the elderly presenting with central retinal artery occlusion (CRAO). **Method:** a Case report. **Results:** A 76-year old gentleman presented with sudden, painless vision loss in the left eye (LE) for 1 day. He has had a long-standing poor vision in the right eye (RE) which remained unchanged. His visual acuity (VA) was CF (RE) and 3/60 (LE). The relative afferent pupillary defect was positive on the left. An old macular scar was noted on the RE while the LE macula was pale with the presence of a cherry-red spot. He was diagnosed with LE CRAO and managed accordingly. Upon review ten days later, VA had deteriorated to HM bilaterally. Further history revealed that he had a low-grade fever, headache and pain on combing his hair for the past 3 weeks. On examination, previously unnoticed superficial temporal arteries (STAs) were prominent, firm and pulsatile bilaterally. A new finding of a pallid oedematous disc with peripapillary splinter haemorrhages was seen in the RE. Biochemically, there was an elevated ESR 107mm/hr and CRP 126.7mg/dL. A presumptive diagnosis of RE arteritic anterior ischemic optic neuropathy and LE CRAO secondary to GCA was made. High-dose corticosteroid was commenced. An STA biopsy showed characteristic inflammatory changes but no multinucleated giant cells. Over time, the right optic disc swelling resolved and VA was 1/60 (RE) and HM (LE) on his last follow up. **Conclusion:** Increased clinical suspicion of GCA in the elderly presenting with CRAO is imperative to avert fellow eye involvement.

### KEY WORDS:

*Giant cell arteritis, central retinal artery occlusion, arteritic anterior ischemic optic neuropathy*

## A case on a rare cause of fungal keratitis

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### ABSTRACT

**Objective:** To present a case on a rare cause of fungal keratitis. **Method:** a Case report. **Results:** A 36 years old lady complaint of Right Eye sudden pain and reduced vision for the past four days. Patient has a history of dust entered the eye while burning trash a few days prior to presentation. The 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 descematocele 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. The incidence of keratitis due to *Penicillium*.sp is very low. Hence we report this case.

## A case of breast carcinoma metastasis to lacrimal gland with intracranial extension

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### ABSTRACT

**Objective:** To present a case of right breast carcinoma metastasis to right lacrimal gland with intracranial extension. **Method:** a Case report. **Results:** A 53 years old complained of fullness around her right eye for 2 months with on and off swelling. There was also occasional right eye redness which initially resolved spontaneously but became persistent past two months. She also complained of a persistent right sided headache. She denied any pain, diplopia, changes in vision, or trauma. She was diagnosed with breast cancer 15 years ago, however, patient defaulted follow up and decided to go for traditional medication. On examination, the right eye best-corrected vision was 6/9, extraocular muscle movement was full. The right upper lid revealed mild oedema, erythema, and ptosis. A bony mass was felt over the right nasal and periorbital region medially extending towards forehead which was non-tender and non-mobile. No skin discolouration noted. There were subconjunctival haemorrhages inferiorly with engorged and tortuous vessels. The anterior segment and fundus findings were unremarkable. Left eye findings were normal. Systemic examination revealed right breast mass with ulcer extending to axillary lymph nodes enlargement. Computed tomography showed aggressive soft tissue mass likely arising from the right lacrimal gland with intracranial extension and bony erosion with suspicious local infiltrate to the right globe. **Conclusion:** It is important in this case to identify malignancy as one of the differential diagnosis. Metastatic malignancy is the most common ocular malignancy in adults, thus a thorough examination by an ophthalmologist, including orbital CT, is recommended as initial step.

## A case of traumatic bilateral direct carotid-cavernous fistula

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### ABSTRACT

**Objective:** To report a case of bilateral direct carotid-cavernous fistula secondary to head trauma. **Method:** a Case report. **Results:** A fifty-three years old gentleman with no known medical illness, presented with bilateral eyes (BE) progressive painless redness, associated with double vision, three weeks after head trauma due to road traffic accident which had been managed conservatively. On examination, BE visual acuity was 6/9 and the relative afferent pupillary defect was negative. BE extraocular movements were limited and presence of bruit over the right eye. BE examination showed dilated and tortuous episcleral vessels with corkscrew vessels. Intraocular pressure (IOP) was raised in both eyes, right eye IOP 25 mmHg and left eye IOP 24 mmHg. Fundus examination was unremarkable. Computed Tomography Angiography of Brain and Digital Subtraction Cerebral Angiography revealed bilateral direct carotid-cavernous fistula (CCF). The patient was treated with hypotensive eyedrops for BE and IOP was well controlled. The patient subsequently underwent endovascular embolization of right direct CCF by an interventional radiologist. The right eye redness has fully recovered and ophthalmoparesis has improved. However, diplopia remained unchanged. The patient was planned for endovascular embolization of the left direct CCF. **Conclusion:** Trauma is the most common cause of direct CCF. Cerebral angiography is the gold standard diagnostic modality. CCF generally has a good outcome with prompt diagnosis and radiological intervention. In our case, we report a rare bilateral direct CCF as most of the cases were presented unilaterally.

### KEY WORDS:

*Direct carotid-cavernous fistula*

## A case report on rare disease: Bilateral nanophthalmic uveal effusion syndrome

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### ABSTRACT

**Objective:** Uveal effusion syndrome is a rare disorder characterized by the accumulation of serous transudate in the suprachoroidal space resulting in ciliochoroidal thickening, ciliochoroidal detachment, and serous nonrhegmatogenous retinal detachment. The pathophysiology of the disease involves primary scleral abnormalities that predispose the eye to vortex vein obstruction and acts as a barrier to diffusion of extravascular protein out of the eye. Furthermore, increased choroidal permeability, intrinsic choroidal alterations and decreased scleral permeability would lead to osmotic fluid retention. The most common presenting complaint is painless visual impairment due to fluid collection. Standard treatment for uveal effusion syndrome is surgical sclerectomy. **Method:** Case presentation: A 34-year-old Malay man presented with right eye (OD) gradually blurring of vision for 1-year duration. He has history of left eye (OS) blurring of vision and investigated but defaulted his follow up. His left eye was legally blind since 25 years old. **Results:** On examination, his visual acuity was 5/60 for right eye (OD) and light perception for left eye (OS). Anterior segment examinations were normal. Fundus examination (OD) showed hyperaemic swollen optic disc, 360 degree choroidal detachment, inferior exudative retinal detachment with dilated and tortuous vessels. Fundus examination (OS) showed mild pallor optic disc, diffuse leopard spots and dull foveal reflex. B scan ultrasonography showed choroidal detachment for right eye with scleral thickness 2.28mm (OD) and 2.34mm (OS). A scan ultrasonography showed 19.46mm (OD) and 18.53mm (OS). The patient was planned for right eye sclerectomy window but repeat fundus examination OD one day prior to operation showed flat retina with resolving subretinal fluid. The operation was deferred as patient had spontaneous resolution. **Conclusion:** This case illustrates one type of uveal effusion syndrome and even though standard treatment is surgery, spontaneous resolution of uveal effusion can happen and it is quite uncommon.

## A rare case of atypical optic neuritis in isolated sphenoid sinusitis

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### ABSTRACT

**Objective:** To report a case of an unusual ocular complication of sinusitis; atypical optic neuritis in isolated fungal sphenoid sinusitis. **Method:** A Case Report. **Results:** 67 years old Malay Gentleman, no underlying comorbidity, presented with painless, progressive inferior field loss to total scotoma over two weeks. He had occasional episodes of flu-like symptoms especially exposed to cold weather. At presentation, left eye relative afferent pupillary defect was positive. Visual acuity 6/12 OD and PL OS. Anterior segment bilateral eyes were unremarkable. Posterior segment left eye showed a blurred margin of the optic disc. The investigation revealed significantly elevated erythrocyte sedimentation rate while other investigations were normal. Computed tomography Brain features suggestive of left chronic sphenoid sinusitis. The case was referred immediately to otorhinolaryngology team, and he underwent left sphenoidotomy via transethmoidal approach by the team. Operative finding consistent with features of fungal sphenoid sinusitis. Postoperatively he had been treated with systemic antifungal and antibiotic. Over three weeks of treatment, the visual acuity OS improved to CF. Optic disc-less hyperaemic and visual field widen. **Conclusion:** Sphenoid sinus related directly to orbital content and optic nerve. Atypical optic neuritis might represent on-going chronic sphenoid sinus inflammation in origin thus high index of suspicion and imaging should be indicated to ensure early ORL referral for further appropriate management.

### KEY WORDS:

*Ocular complication of fungal sphenoid sinusitis*

# A rare case of bilateral serpiginous choroiditis

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## ABSTRACT

**Objective:** To report a rare case of bilateral serpiginous choroiditis. **Method:** a Case report. **Results:** A 52-year-old man presented with bilateral sudden painless blurring of vision of 3 weeks' duration. The generalized blurring of vision was more evident at night. He also complained of difficulty in reading. Otherwise, there were no other eye complaints or history suggestive of tuberculosis or malignancy. Visual acuity was 6/18, 6/12 bilaterally with OD N18 OS N24. There was no relative afferent pupillary defect. Anterior segment findings were normal. There were no anterior vitreous cells. Bilaterally eye pressures were 12 mmHg. Fundus examination showed extensive right chorioretinal atrophy surrounding the peripapillary region and fovea with extension towards the superior and inferior arcade in a snakeline manner. Left fundus showed similar findings but less extensive. There was no retinitis or vitritis. Fundus autofluorescence test showed the lesion was hypoautofluorescent with hyperautofluorescent edges. Fundus fluorescent angiography showed hyperfluorescent edges. Baseline blood investigations were normal and infective screening was negative including for tuberculosis. A diagnosis of bilateral serpiginous choroiditis was made. The patient was treated with oral prednisolone 1mg/kg od with a tapering dose every 2weekly. On the second week of oral prednisolone, the patient felt an improvement in his vision. **Conclusion:** Serpiginous choroiditis is a rare chronic inflammatory disease. Classical fundus findings include asymmetric bilateral disease with striking grey-white lesions emanating in a finger-like manner from the optic nerve. Investigations such as fundus autofluorescent and fundus angiogram are important in assessing disease activity. Since this disease is rare, there is no consensus regarding the optimal treatment regimen. However systemic and local corticosteroids may be used in the treatment of active lesions.

## KEY WORDS:

*Serpiginous choroiditis, chronic inflammation, finger-like lesion*

# A rare case of ligneous conjunctivitis

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## ABSTRACT

**Objective:** To present a rare case of ligneous conjunctivitis. **Method:** a Case report. **Results:** A six-year-old boy complained of bilateral eye redness and discharge for 3 years duration. Prior to the 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 the right eye and 6/36 for the left eye. The palpebral conjunctiva in both eyes was inflamed and thickened with the presence of pseudomembranes. Examination of the cornea showed punctate epithelial erosions. However, the anterior chamber and fundi were normal. He was initially prescribed with guttae fluorometholone and guttae 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.

## KEY WORDS:

*Ligneous conjunctivitis; plasminogen deficiency*



## A rare case of malignant conjunctival melanoma

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### ABSTRACT

**Objective:** To discuss a rare case of conjunctival melanoma and the approach in its management. **Method:** Case Report. **Results:** A 57-year-old Chinese man, with underlying ischemic heart disease, hypertension and epilepsy presented with left-sided painless pigmented conjunctival growth for 5 years, which was gradually increasing in size. There was no blurring of vision. He did not complain of any constitutional symptoms. There was no significant family history of malignancy. He is a chronic smoker with 20 pack year history. Ocular examination of the left eye revealed normal visual acuity and no relative afferent pupillary defect. A pigmented mass was seen medially arising from the conjunctival measuring 10mmx12mm with central ulceration and blood clots seen within. The mass extended to the fornix and the eyelids. Other ocular examination was normal. Systemic examination was unremarkable. Magnetic Resonance Imaging showed a thin area of enhancement to the left globe, with high signal intensity on T1W1, due to the presence of melanin. No intraorbital and intracranial infiltrations. Incisional biopsy of the pigmented lesion showed a surface ulcerated malignant tumour with solid sheets and nests of epithelioid cells, which were pigmented. The cells were positive for HMB45 and Melan A. Diagnosis of malignant melanoma was confirmed. The patient subsequently underwent left eye total exenteration. **Conclusion:** Conjunctival melanoma is an ocular surface tumour which is rare among the Caucasian population, and even more so among the Asian population. Though rare, it is a potentially fatal condition which requires prompt management. Therefore, all suspicious pigmented conjunctival lesions warrant thorough examination, investigation including appropriate imaging and histopathology examination.

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## A rare case of periorbital abscess caused by of Salmonella enteritidis

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### ABSTRACT

**Objective:** To report a rare case of periorbital abscess caused by of Salmonella enteritidis in a patient with long-term anticoagulant. **Method:** a Case report. **Results:** A 77 years old gentleman with underlying dyslipidaemia and ventricular tachycardia on anticoagulant and cardiac pacemaker, presented with the left eye (LE) swelling and bruises following a fall one day before. He was being followed up for the right eye (RE) age-related macular degeneration (ARMD) with macula scar and LE active neovascular ARMD. On presentation, his vision was counting finger and hand movement respectively. There was marked relative afferent pupillary defect over the LE with intraocular pressure (IOP) of 51 mmHg. The profound haematoma was noted over upper and lower lid with subconjunctival haemorrhage, conjunctival chemosis and corneal epithelial defect. Fundus view was obscured by a corneal epithelial defect. Otherwise, he was systemically well with neither fever nor diarrhoea. Topical and systemic anti-glaucoma agents were administered to control IOP. Lateral canthotomy was put on hold in view of profuse bleeding risk. Unfortunately, the haematoma progressed to an abscess which required incision and drainage. The culture of eyelid abscess grew Salmonella enteritidis sensitive to ceftriaxone. He responded well to 2 weeks course of intravenous ceftriaxone and vision returned to baseline of counting finger. **Conclusion:** Salmonella localization to the skin presenting as periorbital abscess as a sole clinical manifestation of infection is regarded as a rare event. The pathogenesis of our case is unclear, however; the age factor with multiple medical comorbidities may contribute to this unique pathogen entity.

### KEY WORDS:

*Periorbital abscess, Salmonella*



# A rare case of toxic anterior segment syndrome post-intravitreal triamcinolone

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Pusat Perubatan Universiti Kebangsaan Malaysia, Universiti Kebangsaan Malaysia

## ABSTRACT

**Objective:** To report a rare case of toxic anterior segment syndrome post-intravitreal triamcinolone. **Method:** A case report. **Results:** A 56-year old man with diabetes mellitus presented with sudden onset, painless blurring of vision in the left eye of three days duration. He had intravitreal triamcinolone injection done at another centre for diabetic macular oedema. Immediately post-injection, he experienced persistent worsening of vision that he sought a second opinion at our centre. He was otherwise well, with no preceding fever or systemic symptoms of active infection. On presentation, his vision was counting finger with intraocular pressure (IOP) of 28mmHg. There was neither lid swelling, conjunctival chemosis nor eye discharge. Examination revealed limbal to limbal corneal oedema with descemet folds and poor iris details. Anterior chamber (AC) showed intense inflammatory cells of 4+ with hypopyon level of 2mm, flare and fibrin at the pupillary margin. Whitish particle aggregates were seen in the AC. The pupil was fixed and mid-dilated. B-scan ultrasound revealed vitreous opacity with no loculation. Clinically and symptomatically, he showed improvement post-steroid challenge. Hence, he was commenced on intensive hourly topical corticosteroids, topical antiglaucomas, mydriatics and hypertonic saline. His vision improved to 6/36 a week post-intensive treatment, with resolved corneal oedema, reducing inflammatory cells, lesser triamcinolone aggregates in the AC and normalised IOP. Fundus examination showed moderate non-proliferative diabetic retinopathy with severe diabetic macular oedema. **Conclusion:** TASS is a rare complication of anterior segment surgery, even rarer post-intravitreal injection. Early diagnosis and aggressive treatment are paramount to prevent vision-threatening sequelae.

## KEY WORDS:

*Toxic anterior segment syndrome, TASS, triamcinolone*

# Atypical presentation of ocular toxoplasmosis with nodular scleritis

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## ABSTRACT

**Objective:** To report an atypical presentation of toxoplasmic retinochoroiditis associated with nodular scleritis in an elderly patient. **Method:** a Case study. **Results:** A 65-year old lady with no underlying medical illness presented with a 3 week history of redness and pain in the right eye associated with floaters. She had no previous eye infection that required oral medication or contact with pets. There was no history of immunocompromise, taking immunosuppressive therapy, trauma or eye surgery. Her visual acuity was 6/12 in the right eye and 6/9 in the left. Intraocular pressure was normal in both eyes. Anterior segment examination of the right eye revealed localized nodular scleritis at the superotemporal area, clear cornea with generalized fine keratic precipitates and grade 3+ cells in the anterior chamber. Right fundus showed fluffy edged greyish-yellowish lesion suggestive of retinochoroiditis about one disc diameter at the superotemporal quadrant with minimal vitritis and vasculitis. No scar was seen adjacent to the lesion. B scan ultrasonography revealed no associated posterior scleritis. Ocular examination of the left eye was unremarkable. Toxoplasma IgG serology later came back positive. Patient was diagnosed with ocular toxoplasmosis associated with nodular scleritis and treated with dexamethasone eye drop and oral trimethoprim and sulphamethoxazole 960mg bd for 6 weeks. She responded well to treatment with the nodular scleritis completely resolved and contracting retinochoroiditis with subsequent scarring. **Conclusion:** Toxoplasmosis should be considered as a differential diagnosis in patients with scleritis associated with retinochoroiditis. This case highlights the atypical manifestation of ocular toxoplasmosis, which is a common cause of infectious uveitis.

## KEY WORDS:

*Toxoplasmosis, atypical, nodular scleritis*

# Atypical retinoblastoma presentation - A challenge for the treating ophthalmologist

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## ABSTRACT

**Objective:** To report a case of atypical retinoblastoma presentation which initially presented as secondary glaucoma and the radiographic finding was believed to be characteristic of persistent fetal vasculature. **Method:** a Case report. **Results:** A 28 months old girl, who initially presented to a paediatrician with acute paraplegia and urinary retention, was referred to ophthalmology for evaluation of abnormal reflex of her right eye. Her ocular history was significant for leucocoria at 18 months of age; however, she was only referred to an ophthalmologist at 24 months of age and was diagnosed to have right secondary glaucoma due to persistent fetal vasculature based on radiographic findings on MRI. Her repeat imaging findings were highly suggestive of spinal metastasis disease. The radiographic findings showed a mass in the right vitreous cavity with local and leptomeningeal extension metastases in the brain and spine, associated with mild hydrocephalus and syringomyelia. Ocular examination under anaesthesia revealed circumcorneal injection, a hazy cornea with early band keratopathy. The anterior chamber was deep and formed, with a blood clot and white material in iris tissue that could possibly be metastatic tissue. There was reddish-yellowish hue retrocentrally. However, there was no fundus view. Left eye examination appeared unremarkable. No intrinsic calcification of mass was noted on ultrasonography. The clinical diagnosis was strongly suggestive of right retinoblastoma. Results of a full metastatic workup were negative of any malignant cells. Right enucleation with an acrylic ball was carried out after 3 cycles of chemoreduction with intrathecal methotrexate and HPE results revealed retinoblastoma with Bruch membrane and focal choroidal invasion. **Conclusion:** An atypical case of retinoblastoma may lead to a diagnostic dilemma. The diagnosis of retinoblastoma was complicated by MRI imaging findings consistent with PFV at initial presentation

## KEY WORDS:

*Atypical retinoblastoma*

# Both eyes sudden loss of vision in 4 years old boy: An unusual presentation of suprasellar mass

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## ABSTRACT

**Objective:** We describe a case of an unusual presentation of suprasellar mass. **Method:** a Case report. **Results:** A 4 years old boy, presented to the Emergency complaining of both eyes sudden loss of vision for 1 day. There was no history of trauma to the eyes or head. No eye pain or redness associated. There was a history of admission for fever of unknown origin and history of gingivitis for 1 month. Not on any medications. No significant past ocular history and the vision was normal before. Associated thirst and drinking large amounts of water per day for 2 weeks. History of generalized malaise and being sleepy most of the day. Examination of both eyes revealed VA of HM both eyes. Normal anterior segment and the fundus of both eyes were found normal. Cranial vault lesions noticed on examination. CT scan of Brain and Orbit showed the presence of a large suprasellar mass enhanced avidly with the presence of cystic lesions within. Differentials include hemangiopericytoma and craniopharyngioma with secondary metastatic lesions to the cranial vault and soft tissue extension into adjacent spaces. With a diagnosis of Hypopituitarism secondary to suprasellar mass, the patient started treatment on steroids and thyroxine. Improvement noticed and vision of the patient improved to 6/12 both eyes over 2 weeks. The patient is still on follow up.

# Case report: Bilateral optic perineuritis with total blindness

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## ABSTRACT

**Objective:** Reporting a case of bilateral perineuritis with total blindness. Our aim of this case report is to increase awareness of an atypical presentation of optic perineuritis presented with an acute severe bilateral vision loss, its management and clinical outcome. **Method:** A case report. **Results:** Optic perineuritis also known as perioptic neuritis is an orbital inflammatory disorder in which the specific target tissue is the optic nerve sheath that can be either idiopathic or as a manifestation of systemic inflammatory disorders or specific infections. We report a case of a 56-year old female with idiopathic bilateral optic perineuritis with total blindness (no perception of light) in both eyes. Clinical examination revealed bilateral optic disc swellings. Radio imaging studies were suggestive of optic perineuritis. She was started on high dose intravenous methylprednisolone for 5 days and followed by a course of oral steroids. She responded well to steroid therapy. Following treatment, her vision improved in both eyes. **Conclusion:** Optic perineuritis often mistaken for acute demyelinating optic neuritis as the clinical presentation and ophthalmic findings are very similar. Hence it's important to distinguish between the two of them. Early diagnosis will result in better management and improve the visual prognosis.

## KEY WORDS:

*Optic perineuritis, visual loss*

# Choroidal tuberculoma

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## ABSTRACT

**Objective:** To report three cases of choroidal tuberculomas with a different outcome. **Method:** Retrospective case series. **Results:** Three patients (two male and one female), aged of 52, 50 and 25 years old were immunocompetent. All three presented with a unilateral blurring of vision of a week to two months duration. Vision at presentation was 6/12, 6/60 and 6/24 respectively. First two patients had unilateral solitary yellowish subretinal mass at midperiphery (one associated with exudative retinal detachment and vitritis) while the later involved posterior pole. The second patient had positive PCR TB test (vitreous) and positive Mantoux with concurrent disseminated tuberculosis (TB meningitis). Others were negative of systemic tuberculosis while ocular investigations for TB were not done. All patients showed a positive response to ATT over a period of 2–6 weeks. First two cases improved to 6/9 and 6/6 vision, unfortunately, the later remained at CF 3ft from late treatment, complicated with choroidal neovascularization. The retrospective analysis noted him to have 'contact' sign (attachment between the retinal pigment epithelial–choriocapillaris layer and the neurosensory retina over the granuloma) on OCT scan, however, was treated as central serous chorioretinopathy initially. **Conclusion:** ATT is cost-effective and well-tolerated. The key to saving the affected eye is to make a prompt diagnosis and early treatment. Apart from clinical clues and laboratory tests, OCT is useful to reveal a distinctive feature of 'contact' sign.

## KEY WORDS:

*Choroidal tuberculoma, disseminated tuberculosis, 'contact' sign*

# Case series of chronic relapsing inflammatory optic neuropathy

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## ABSTRACT

**Objective:** To report a case series on Chronic Relapsing Inflammatory Optic Neuropathy. **Method:** a Case report. **Results:** Case 1 and 2 involve a 29-year-old Malay and a 21-year-old Indian lady both presented with a unilateral blurring of vision and examination showed features of optic neuritis. They were treated with IV methylprednisolone and then tapering dose oral steroid. They have multiple episodes of relapses and treated accordingly. Serum antiaquaporin-4 and oligoclonal band were negative. The imaging was normal. They are on oral steroid and azathioprine. Case 3 is a 23-year-old Malay gentleman with a blurring of vision bilaterally in 2006. His examination showed optic neuritis and treated with IV methylprednisolone then tapering oral steroids. He had multiple attacks of optic neuritis. His imagings were normal with negative results of serum anti-aquaporin-4 and CSF oligoclonal band. He is on oral steroid and azathioprine. Case 4 is a 29-year-old Malay gentleman presented with right eye blurring of vision in November 2015 and examination showed optic neuritis. He was treated with IV methylprednisolone and a tapering dose of oral steroids. He relapsed twice. His imaging was normal. Serum aquaporin 4 and CSF oligoclonal band were negative. He was on oral prednisolone and azathioprine, however, was unable to tolerate the azathioprine and was changed to oral methotrexate. He was treated with IVIG due to citrate toxicity but developed a reaction. He is currently on prednisolone and rituzimab. **Conclusion:** CRION is a diagnosis of exclusion involving a recurrent condition of optic neuritis that responds to steroid treatment

# Challenges of managing ocular trauma in multiple facial fractures

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## ABSTRACT

**Objectives:** Multiple facial fractures involving the orbital often present associated injuries of the eyeball and the surrounding extraocular structures. The severity varies from a subconjunctival hematoma to a globe perforation or optic nerve lesion which leads to visual impairment. Surgical approach and implant selection which aims to prevent further deformity and visual impairment should be carefully considered. **Methods:** Case report. **Results:** A 23-year-old male complained of loss of vision of right eye with multiple facial fractures due to a traffic accident. Right eye examination showed no light perception and corneal rupture with uveal prolapse. Palpebral oedema, hematoma, and subconjunctival bleeding were found in both eyes. Orbital CT scan revealed comminuted fracture according to Le Fort II-III classification with haemorrhage in right bulbous oculi. The patient was diagnosed with a destroyed right eye, Le Fort II-III fractures, and palpebral hematoma of both eyes. Antibiotic and anti-inflammatory drugs were given before the operation. Wound debridement and evisceration with dermatofat graft of right eye, open reduction and internal fixation with plate and screw were done in collaboration with ENT surgeon to manage the Le Fort II-III fractures. **Result:** Despite the loss of function of the right eye, adequate orbital volume was achieved. Position and movement of the eyeball improved. Aesthetical improvement was prominent with minimal scarring. **Conclusion:** Management of ocular trauma in multiple facial fractures poses additional challenges due to the complexity of the fracture pattern. Adequate assessment and early surgical approach should be done simultaneously with multidisciplinary teams to obtain better result.

## KEY WORDS:

*Multiple facial fractures, ocular trauma*

# Choroidal tuberculoma in the absence of pulmonary or miliary tuberculosis

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## ABSTRACT

**Objective:** To report a case of a choroidal granuloma in an immunocompetent individual who presented with sudden onset of unilateral painful loss of vision. **Method:** a Case report. **Results:** A 54-year-old female with underlying hypertension presented with sudden painful reduced vision over her left eye for a week, associated with redness, throbbing left temporal headache and fever for 4 days prior to the onset of ocular symptoms. Left eye visual acuity was hand movement, with a positive relative afferent pupillary defect. The anterior segment was normal but fundus showed a hyperaemic swollen disc with a yellowish subretinal lesion suggestive of granuloma over inferotemporal arcade affecting macula with exudative retinal detachment and macular star. Her right eye was normal. Systemic examination was unremarkable. B-scan ultrasound showed choroidal lesion with excavation, showing low to medium internal reflectivity and a positive T-sign suggestive of posterior scleritis. Optical coherence tomography revealed pigment epithelial detachment with subretinal fluid. Fundus fluorescent angiography showed non-specific late hyperfluorescent choroidal staining which does not show leaking from vessels. Blood investigation showed raised leucocytosis and C-reactive protein. Mantoux test was positive. She was started on antituberculous treatment and showed marked improvement of vision (6/9) and posterior segment signs. **Conclusion:** Posterior uveitis is the most common manifestation of intraocular tuberculosis. A prompt diagnosis and accurate management are important to treat this potentially blinding condition.

## KEY WORDS:

*Choroidal granuloma, chorioretinitis, posterior scleritis*

# Cladosporium conjunctivitis

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## ABSTRACT

**Objective:** To report a rare case of fungal conjunctivitis. **Method:** A case report. **Results:** 61-year-old Malay lady with underlying hypertension, presented with right eye pain, redness, swelling and discharge of two weeks duration. She denied any preceding trauma or constitutional symptoms. Right eye vision was 6/12, left eye 6/9. No relative afferent pupillary defect detected. The right conjunctiva was injected with generalized chemosis and follicles were present. The cornea was clear, anterior chamber was quiet and funduscopy was normal. Left eye examination was unremarkable. Topical antibiotic was prescribed for right eye conjunctivitis. During the third week of follow up, the chemosis worsened. A computed tomography scan of orbit and brain was arranged to rule out carotico-cavernous fistula, however this was negative. The diagnosis was revised to ocular glandular syndrome after she developed right submandibular lymphadenopathy. Systemic doxycycline and gentamicin were given. Investigations revealed raised total white cell count and erythrocyte sedimentation rate, Mantoux test and Bartonella IgM serology were positive and negative Mycobacterium tuberculosis polymerase chain reaction (MTB PCR). The infectious disease team was consulted at this juncture. Antituberculous treatment was instituted for presumptive right tuberculous conjunctivitis, while awaiting the conjunctival biopsy result. The biopsy revealed an acute on chronic conjunctivitis, while fungal culture grew *Cladosporium* sp. The diagnosis was re-revised to fungal conjunctivitis and systemic antifungal was commenced, while the antituberculous drugs were discontinued. **Conclusion:** Fungal infection of the conjunctiva is rarely reported and occurs mostly in patients with a weakened conjunctival defence mechanism. Early diagnosis and treatment are crucial to prevent vision-threatening complications.

## KEY WORDS:

*Fungal, conjunctivitis, cladosporium*

## Complication of cataract surgery that leads to evisceration

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### ABSTRACT

**Objective:** To present an unusual case of corneal decompensation and secondary glaucoma after secondary iris-claw Intraocular Lens (IOL) implantation that leads to evisceration. **Method:** A case report of a 68-year-old woman who came with a worsening vision of the left eye after cataract surgery. The patient underwent small incision cataract surgery 2 months prior without IOL implantation. Initial ophthalmological examination showed visual acuity of 1/60. The iris was irregular with pupil diameter more than 4 mm, and the superior part of the iris is pushed by the vitreous. There was slight opacity in the cornea. Correction of sphere +10.00 was given and the visual acuity improved to 6/40. The patient underwent anterior vitrectomy and secondary iris-claw IOL implantation. **Results:** Three days after the implantation, visual acuity improved to 5/60. The patient came back again after one year with a loss of vision and severe pain of the left eye. Ophthalmological examination showed no light perception, corneal opacity and increased intraocular pressure. Diagnosis of corneal decompensation and secondary glaucoma were made. Conservative management was given but there was no improvement. Therefore evisceration was done. **Conclusion:** Corneal decompensation and secondary glaucoma may still develop after iris-claw IOL implantation despite its good safety profile. Moreover, scleral-fixated posterior chamber IOL can be considered to be a more safer technique for a patient with iris atrophy. If the complication of cataract surgery were found in the early stage, it can be treated with a good visual outcome. Therefore, follow up is important and education to improve patient compliance must be given.

### KEY WORDS:

*Cataract, corneal opacity, orbital evisceration, secondary glaucoma*

## Dematiaceous fungal keratitis - A treatment conundrum

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### ABSTRACT

**Objective:** To discuss the difficulty in treating a rare fungal keratitis. **Method:** a Case report. **Results:** A 53-years-old Malay gentleman underwent an uncomplicated left eye cataract surgery with the best corrected visual acuity of 6/12. Three months later noted the presence of stromal infiltration and branching white lesion overlying endothelium at the main incision site. He was covered with intensive topical fortum and vancomycin. Subsequently, guttae dexamethasone started as the anterior chamber (AC) tap yield no organism. The lesion worsened and shows clinical signs of fungal keratitis, prompting initiation of oral fluconazole and topical amphotericin. Later, topical fluconazole and voriconazole added with cessation of dexamethasone. The condition deteriorates with the formation of fibrin, hypopyon and small whitish mass in AC resembling a fungal ball. He was referred to Cornea consultant who stopped topical and oral fluconazole and added oral itraconazole, clarithromycin and topical amikacin. Unfortunately, the cornea becomes thinner at the lesion site and it perforated while doing AC washout. The perforation was glued temporarily, and amphotericin switched to guttae natamycin. A week later, he underwent corneal biopsy and therapeutic penetrating keratoplasty. Corneal histopathology showed findings consistent with fungal infection. Despite all the antifungal, the infection spread to become endophthalmitis. Multiple intravitreal antifungal injections were given. Eventually, non-sporing dematiaceous fungi were isolated. The eye improved with topical voriconazole and natamycin with hand movement vision. **Conclusion:** This case highlights that clinicians should have a high suspicion of fungal infection based on clinical signs although the culture inconclusive. It is necessary to cover with antifungal before commencing steroid as it might flare up the infection.

### KEY WORDS:

*Dematiaceous Fungi, Keratitis*



# Drug-induced ocular manifestations

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## ABSTRACT

**Objective:** To report a case and to increase awareness of chlorpromazine-induced ocular toxicities. **Method:** A case report. **Results:** A 52-year-old gentleman with diabetes mellitus and schizophrenia, diagnosed 30 years ago, was on long-term chlorpromazine, 400mg at night. He responded well to treatment, with no psychiatric relapse for the past 20 years. He presented to Ophthalmology clinic with a complaint of bilateral gradual blurring of vision, associated with glare for 3 years. On examination, UCVA in the right eye was 6/12, which improved with refraction to 6/6; and 6/6 on the left. Both eyes were dry evident by presence of punctate epithelial erosions. There were diffuse yellowish-brown endothelial and stromal deposits on the cornea and stellate cataract bilaterally. No conjunctival hyperpigmentation was seen. Anterior chambers were quiet and intraocular pressures were normal. Fundus examination showed bilateral moderate non proliferative diabetic retinopathy with dry maculopathy however, no pigmentary retinopathy. Artificial tears were prescribed and the case was discussed with his psychiatrist. Chlorpromazine was changed to olanzapine. Upon review at 6 months, vision improved to 6/6 bilaterally and symptoms of glare have reduced. Punctate epithelial erosions resolved, but corneal and lenticular deposits persist. **Conclusion:** Long-term usage of chlorpromazine causes irreversible corneal and lenticular deposits which can cause significant visual disturbances. Periodic ophthalmic assessment is important for early detection and to avoid surgical intervention. This highlights the importance of comprehensive drug history and recognizing the ocular side effects of medications.

## KEY WORDS:

*Chlorpromazine, stellate cataract*

# Elective cataract surgery cancellation at a general operative theatre at Hospital Tengku Ampuan Afzan - A retrospective evaluation of the year 2017

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## ABSTRACT

**Objective:** We aim to discuss on elective cataract surgery cancellation at general operative theatre HTAA in the year 2017. **Method:** a Case report. All cancelled elective cataract cases scheduled at GOT in the year 2017 were identified by retrospective chart review. **Results:** A total of 771 patients were scheduled for elective cataract surgery at the general operating theatre in 2017. These include cases under local anaesthesia (605) and general anaesthesia (166). A total of 61 of patients scheduled for cataract surgery were cancelled. Out of 61 patients who were cancelled, 43 were scheduled for local anaesthesia and 18 were for general anaesthesia. The most common cause for cancellation is due to patient's refusal for op which amounts to 12 patients (19.6%). The second most common cause is high blood pressure (9 cases). This is more common in patients scheduled for surgery under local anaesthesia. Upper respiratory tract infection is the 3rd highest cause of elective cataract surgery cancellation with a total number of 9 cases. Other causes include hospital factor (instrument failure, operation theatre time limitation and no ICU bed), medical problem, high DXT reading. Some patients were cancelled due to skin infections and eye infections. **Conclusion:** Though our rate of cataract surgery cancellation is within performance indicator limit set by the Ministry of Health Malaysia, steps could be taken to further limit the rate. Understanding the aetiology of case cancellation and ensuring efficiency in the preoperative clinic can be the major factor in minimising this.

# Firecracker eye injuries during Raya Aidilfitri 2018

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## ABSTRACT

**Objective:** To report cases of ocular trauma caused by firecrackers. **Method:** Case study reports of patients attending our eye clinic during the Raya Aidilfitri period. Detail ocular examinations were performed and the injuries were classified accordingly using the Birmingham Eye Trauma Terminology System (BETTS). The types and mechanism of firecracker injury were analysed and discussed. **Results:** First 2 cases were classified as contusion closed globe injury. One was an 8-year-old child sustained corneal abrasion with superficial lid and conjunctival abrasion wound after being hit by an exploding smoke ball firecracker while playing outside his house. The affected right eye vision was 6/9. The second was a 59-year-old gentleman with left eye traumatic microhyphaema, uveitis and secondary raised intraocular pressure. He was injured by a sudden explosion of projectile firecracker when he went closer to examine the 'non-blasting' firework. His left eye vision was 6/12 and his intraocular pressure normalized following the resolution of traumatic microhyphaema and uveitis. The third case was lamellar laceration of closed globe injury. He was a 29-year-old gentleman who was a passer-by when he was allegedly hit by an exploding type of firecracker. The affected right eye vision was 6/36. A partial thickness corneal laceration was seen with a diffusely injected conjunctival and corneal abrasion. Gunpowder deposits were seen embedded through the corneal stroma. **Conclusion:** Ocular injuries by firecracker are common during the festive season. Various types of firecrackers result in different ocular injuries. Many injuries are also a result of negligence and lack of parental supervision.

## KEY WORDS:

*Firecracker, festive, BETTS*

# Hyphaema: A diagnostic dilemma

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## ABSTRACT

**Objective:** To report a case of a 3 years old child presented with left eye swelling and hyphaema and the diagnostic dilemma upon reaching a diagnosis. **Method:** a Case report. **Results:** We report a case of a 3 years old child who was referred to Hospital Kuala Lumpur (HKL) initially for Left eye (LE) retinoblastoma (RB). The child presented with 3 days history of LE swelling and hyphaema without a history of preceding trauma. CECT brain was done and punctate calcifications within the left globe raised the index of suspicion of retinoblastoma. On examination under anaesthesia (EUA), LE total hyphaema with the hazy cornea and no fundus view. LE B-Scan showed full vitreous opacity with small dots calcifications, however, no obvious retinal mass is seen. The fellow eye fundus examination noted peripheral vitreous changes with nasal and temporal retina area of avascularisation which was confirmed by FFA. The working diagnosis was LE juvenile xanthogranuloma with a differential of LE severe familial exudative vitreoretinopathy in view of RE findings. However, infiltrative RB needs to be ruled out. The child was subsequently followed up in the clinic and found to have persistent findings. In view of indefinite diagnosis and high suspicious of RB, family consented for LE diagnostic enucleation and sent for histopathological examination (HPE). HPE revealed abundant foamy histiocytes with occasional multinucleated giant cells with Touton-like forms. Features are consistent with juvenile xanthogranuloma. **Conclusion:** In conclusion, there are multiple possible diagnoses in a case of non-traumatic hyphaema. Thorough examination and investigation must be done and might consider HPE to confirm the diagnosis.

## KEY WORDS:

*Juvenile xanthogranuloma*



# I didn't just bleed in my brain, but in my eyes too

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## ABSTRACT

**Objective:** To report a case of Terson syndrome. **Method:** a Case report. **Results:** A 31-year-old gentleman with newly diagnosed hypertension presented with non-progressive, painless blurring of vision bilaterally for the past 3 weeks. The onset of blurring of vision started after discharged from another hospital for hypertensive bleed with cerebral oedema. It was not preceded by head trauma. On examination, vision RE was 6/36, pinhole (ph) 6/36, LE was 6/12 ph 6/12 with no RAPD. Anterior segment and intraocular pressure were unremarkable. Bilateral fundus showed papilloedema with multilayer patches of haemorrhages at the posterior pole. CT Brain showed intraventricular bleed. The patient was managed conservatively by optimizing the blood pressure. He was seen back three weeks later. Ocular examinations showed similar visual acuity however with resolving papilloedema and retinal haemorrhages. **Conclusion:** This case illustrates an atypical aetiology of Terson syndrome. In Terson syndrome, intraocular haemorrhage usually resolves spontaneously but vitrectomy can be considered if haemorrhage persists after 3 months. Visual loss is usually reversible but permanent impairment of vision can occur in a non-clearing haemorrhage. Thus, early referral to an ophthalmologist is warranted in the suspected case of retinal haemorrhage.

# Juvenile myasthenia gravis: A rare case

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## ABSTRACT

**Objective:** To report a rare case of juvenile myasthenia gravis. **Method:** a Single observational case report. **Results:** An 8-year-old Chinese girl with no known premorbid history presented with right eye ptosis which was preceded by an episode of upper respiratory tract infection. Her droopy eyelid was persistent for months and her mother noticed it worsening progressively throughout the day. On examination, best-corrected visual acuity both eyes were 6/6. There was right eye ptosis obscuring the visual axis that improved with ice pack test. Both eyes had an unequal degree of ophthalmoplegia and no other neurological deficit was elicited. Anterior segment and fundus examination of both eyes were normal. Cogan's lid twitch and fatigability were present. Serum Acetylcholine antibody receptor was positive. CT scan showed features of acute on chronic sinusitis with normal findings of the brain and orbit. She was started on oral pyridostigmine. She presented again six weeks later with a complaint of difficulty in chewing and smiling. The case was co-managed with a paediatric neurologist and the patient was then started on tapering dose oral prednisolone. She has been symptom-free for the past four months since commencement of treatment. **Conclusion:** Juvenile myasthenia gravis is a rare, autoimmune condition of childhood that shares many characteristics with that of the common adult form of the disease.

## KEY WORDS:

*Juvenile myasthenia gravis, ice pack test, serum acetylcholine antibody receptor, pyridostigmine*

# Late presentation of orbital lymphoma: The good, the bad and the ugly

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## ABSTRACT

**Objective:** To report an advance case of orbital lymphoma leading to visual impairment. **Method:** a Case report. **Results:** A 55-year-old Iban man with no comorbid presented with a history of painless, progressive left upper eyelid swelling for the past 1 year. The mass was extensive to cause exposure keratopathy and severe displacement of the eye. The vision of his left eye was hand movement with a positive relative afferent pupillary defect. Optic disc hyperaemia and choroidal folds were also seen from funduscopy. Computed Tomography of the orbit revealed a large lobulated left extraconal mass (4.5 x 3.5 x 4.0 cm) causing proptosis with an inferior-medial displacement of the optic nerve and extraocular muscles. Histology from the incisional biopsy of the mass confirmed the diagnosis of extra-nodal marginal zone B cell lymphoma (EMZL). Bone marrow aspiration and trephine showed systemic involvement and chemotherapy was soon initiated. After a few cycles of chemotherapy, the mass gradually regressed and the patient had significant improvements in terms of visual acuity and globe position. **Conclusion:** EMZL is the most common type of ocular lymphoma and it is most commonly seen in the orbit. It usually has an indolent course with an excellent prognosis but seldom presents as a rapidly progressive mass with optic nerve compromise. This is a rare case of orbital EMZL with systemic involvement that had an ugly, disfiguring presentation with bad ocular signs and symptoms that eventually has a good outcome with appropriate treatment.

## KEY WORDS:

*Lymphoma, orbital tumour, extra-nodal marginal b cell lymphoma, ocular displacement*

# Late repair of descemet membrane detachment following phacoemulsification surgery using cornea venting incision and air injection

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## ABSTRACT

**Objective:** To describe the successful late treatment of descemet membrane detachment (DMD) after uneventful phacoemulsification surgery. **Method:** Retrospective case review. **Results:** A 69-year-old Chinese man presented with left eye blurring of vision for 6 months. He had a history of left eye cataract surgery 10 weeks previously which was uneventful. However post-operatively there was persistent corneal oedema from the main temporal incision which extended into the central cornea causing persistent blurring of vision. Prior to the left eye cataract surgery he had complained of left eye severe pain and swelling and was diagnosed with left eye phacomorphic glaucoma. His right eye was pseudophakic with no complaints. His vision upon presentation was 6/19, 6/19, N36 in the affected left eye. He was diagnosed with left DMD which was confirmed on anterior segment optical coherence tomography. He underwent left venting incision combined with air injection into the anterior chamber 3 months after the initial surgery. Post-operatively, he made a good recovery with best corrected visual acuity of 6/6-2, N5 at 3 months after the procedure. **Conclusion:** Treatment with cornea venting incision combined with air intracamerally injection is an effective method of reattaching the descemet membrane in late presentation of DMD.

## KEY WORDS:

*Descemet membrane detachment, phacoemulsification, venting incision, air injection*

# Langerhans cell histiocytosis: An enigma, wrapped in a dilemma

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## ABSTRACT

**Objective:** To report a case of unilateral upper lid swelling in a healthy young boy, with a final diagnosis of Langerhans Cell Histiocytosis. **Method:** a Case Report. **Results:** 1 year 4 months old, Malay boy presented with left upper lid painless swelling, increasing in size of one-month duration. No associated history of trauma or exposure to active tuberculosis. On examination, noted left eye upper lid swelling of ill-defined margins, with mechanical ptosis and prominent blood vessels. Preliminary blood results were normal excluding other sinister conditions such as leukaemia. Radiological investigation via Magnetic Resonance Imaging (MRI) showed expansile skull lesion involving the roof of the orbit with both cystic and a solid component, and also noted erosion of the anterior cranial fossa and the roof. There was also another lesion over the left temporal bone with intracranial extradural extension. He underwent diagnostic incisional biopsy. Intraoperatively noted the presence of capsulated abscess with an unhealthy inner wall. Ochre coloured liquid mixed with blood, non-foul smelling aspirated and sent for cytology. The cytological result revealed atypical histiocytic cells; giving rise to the final diagnosis of Langerhans Cell Histiocytosis. The child is currently being co-managed with the paediatric oncology team. **Conclusion:** Eyelid swelling in paediatric age group can be challenging and needs multi-fold investigations to be done; haematological, radiological as well as histological. A high index of suspicion and a multi-disciplinary approach is much needed in managing these cases well.

## KEY WORDS:

*Paediatric, Langerhans cell histiocytosis*

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# Leptospiral panuveitis: The elusive predator

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## ABSTRACT

**Objective:** We aim to report a rare case of bilateral non-granulomatous panuveitis secondary to leptospirosis. **Method:** A case report. **Results:** We examine a middle-aged male with complaints of bilateral blurring of vision, eye redness and pain for 1 month. The patient denied any antecedent history of pyrexia and accompanying symptoms prior to presentation. On examination, visual acuity over the right and left eye were 6/36 and 6/24 respectively. Slit lamp examination over both eyes reveals an anterior chamber packed with cells and numerous fine keratic precipitates with posterior synechiae. Both eye fundus examinations showed multiple vitreous opacities with optic disc swelling accompanied by tortuous retinal vessels. His symptoms improved with oral antibiotics accompanied by multiple courses of subconjunctival and topical steroid applications. Serological test returned positive for *Leptospira*. **Conclusion:** Leptospiral uveitis is commonly underdiagnosed due to the nature of leptospirosis being able to be symptom-free. Ocular manifestations can be seen in the systemic bacteraemic phase, however, presenting more commonly in the immunological phase of the disease. Varying ocular manifestations in the intrinsic nature of different causes of uveitis are able to mimic one another which further complicate the process of diagnosis.

## KEY WORDS:

*Leptospira, panuveitis*

# Macroaneurysm complicates a cataractous eye: OCT angiography confirms the diagnosis and monitors treatment

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## ABSTRACT

**Objective:** To document the OCT angiographic findings of retinal macroaneurysm in a patient who had bilateral visually significant cataract and chronic renal failure. **Method:** Retrospective case review. **Results:** An 80-year-old man presented with a bilateral decreased vision for 2 years duration. He had end-stage renal failure with hypertension and previous stroke. Examination of the right eye showed counting fingers vision and left eye vision was 6/24. Dilated examination showed bilateral nuclear sclerotic and posterior subcapsular cataracts. The right macula was involved with a ring of hard exudates in the centre of which was an oval lesion. There was no other retinopathy change. The left eye fundus appeared normal. The right eye underwent macula optical coherence tomography (OCT) which showed hard exudates at the fovea. OCT angiography (OCTA) was performed in view of his renal impairment and was able to show a distinct fusiform lesion in the superficial layer corresponding to the oval lesion. This suggested a right retinal macroaneurysm of the superotemporal vessel. He received prompt laser photocoagulation. He also underwent left eye cataract surgery with favourable visual outcome. The features on OCT and OCTA are presented. **Conclusion:** OCTA is a useful new tool for diagnosis of retinovascular abnormalities including retinal macroaneurysm without the risks involved in fluorescein angiography. OCT can also be used to monitor the treatment response. Cataract surgery should be performed in the eye with the better retinal prognosis.

## KEY WORDS:

*Macroaneurysm, optical coherence tomography angiography, hard exudates, macula, cataract*

# Man blinded in one eye following industrial laser attack

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## ABSTRACT

**Objective:** To report an unfortunate event of industrial laser injury leading to blindness in a youngster. **Method:** A healthy 20-year-old Indian gentleman presented with sudden loss of central vision after an industrial laser was shone into his left eye at his work place. He was not wearing any protective goggles at that time. Visual acuity of both eyes was good prior to the incident. On examination, the best corrected visual acuity of the right eye was 6/6 and the left eye was counting finger. There was no relative afferent pupillary defect. Anterior segments and intraocular pressures were normal bilaterally. Fundus examination of the left eye showed an oedematous macula with a macular hole and surrounding subretinal haemorrhage. Right eye fundus was normal. Optical coherence tomography (OCT) revealed macular oedema with subretinal collection in the left eye. He was given a trial of guttae nepafenac for the left eye. The patient underwent left trans-pars plana vitrectomy (TPPV) at a private hospital. **Results:** At one month follow up, there was no improvement of vision in the left eye. A macular scar was evident on fundus and OCT examinations. **Conclusion:** Retinal injuries due to laser devices can be hazardous and can lead to potential blindness.

## KEY WORDS:

*Industrial laser, blind, macular hole*

# More than meets the eye: *Klebsiella* endogenous endophthalmitis due to catheter-related bacteriuria and bacteraemia

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## ABSTRACT

**Objective:** To report a case of a unilateral endogenous endophthalmitis with subretinal abscess due to catheter-related asymptomatic urosepsis. **Method:** Case Report. **Results:** A 76-year-old gentleman with underlying hypertension, ischaemic heart disease and large benign prostatic hypertrophy on long-term bladder catheterisation presented with right sudden painless vision loss for 3 days. He was otherwise generally well. Vision over right eye initially was only light perception, with severe anterior chamber inflammation and dense vitritis, B-scan ultrasound showed dense vitritis with a subretinal abscess. His left pseudophakic eye was unaffected. Systemically he had no fever or tachycardia, and renal punch was negative. Urine bag contained clear straw-coloured urine. Blood investigation did not reveal any leucocytosis, acute renal impairment or raised inflammatory markers. The patient underwent anterior chamber washout, cataract extraction with posterior capsulotomy, pars plana vitrectomy and intravitreal antibiotics with dexamethasone. Intraoperative findings showed dense vitritis, retinitis and subretinal abscess collection. Cultures from the urine, blood and vitreous demonstrated growth of gram-negative bacilli *Klebsiella pneumoniae*. He was started on systemic and topical antibiotics with topical steroid eye drops as well. He subsequently underwent anterior chamber washout, intracameral antibiotics and dexamethasone twice due to a persistence of hypopyon in the anterior chamber with possible spillover from the posterior segment. Vision improved slightly to hand movement. **Conclusion:** A high index of suspicion is required in diagnosing endogenous endophthalmitis in this patient, as he did not exhibit any symptoms of septicaemia or urinary tract infection.

## KEY WORDS:

*Urosepsis, endophthalmitis, Klebsiella pneumoniae*

# My cat hurt my eye or did it?

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## ABSTRACT

**Objective:** To report a case of cat scratch disease (ocular bartonellosis) with atypical presentation. **Method:** A 21-year-old woman with underlying hypertension, chronic kidney disease and Hepatitis B, presented with bilateral eye blurring of vision for 2 weeks duration. There were no other associated symptoms. There was, however, a history of contact with a cat. On examination visual acuity was 3/60 over the right eye and 6/60 over the left eye with no relative afferent pupillary defect. Anterior segment of both eyes revealed 1+ anterior chamber cellular reaction with pigments on the lens surface. Fundus examination of the right eye revealed 2+ anterior vitreous cells with blurred optic disc margin, retinal haemorrhage with inferior serous detachment. Left eye fundus examination revealed 2+ anterior vitreous cells, an oedematous optic disc with macula star, retinal haemorrhage with inferior vitreous haemorrhage and inferior serous detachment. Visual field showed bitemporal hemianopia. CT brain done was normal. Further laboratory investigations, IgM and IgG for *Bartonella henselae* confirmed the diagnosis of cat scratch disease. The patient was then commenced on an antibiotic. **Results:** The diagnosis of ocular bartonellosis relies primarily on clinical signs along with positive serological signs. **Conclusion:** Recognizing specific eye manifestations with a high index of suspicion is crucial in making a clinical diagnosis. As the patient had underlying hypertension, a diagnosis of malignant hypertension could not be ruled out. Cat scratch disease-associated ocular complication needs prompt and appropriate treatment as it may be visually blinding.

## KEY WORDS:

*Cat scratch disease*

## Ocular leptospirosis in a child - A rare uveitis cause to be considered

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### ABSTRACT

**Objective:** To report a rare case of ocular leptospirosis presenting as panuveitis in a 2-year-old child. **Method:** A case report. **Results:** Leptospirosis is a frequently underdiagnosed communicable disease caused by the zoonotic spirochete *Leptospira* spp, which has a higher prevalence in tropical regions such as Malaysia. Leptospirosis has protean manifestations and consists of 2 phases; the initial septicaemic phase followed by the immune phase. Ocular manifestations frequently present during the latter immune phase. This was recognized in a 2-year-old Iban boy who presented with left hypopyon and vitritis with a prior history of mild conjunctival injection. Retinoblastoma was ruled out and extensive investigations for uveitis were ordered but they did not yield any positive results. The hypopyon resolved with topical steroids but the persistent vitritis has led us to further investigate for Leptospirosis which was tested positive. This case highlights the challenges encountered to arrive at the final diagnosis of leptospiral uveitis in a child. **Conclusion:** Ocular leptospirosis is often underdiagnosed and it is paramount that a suspicion for the disease is maintained especially in a child living in endemic areas. This is to ensure that prompt treatment can be given to prevent reversible and irreversible ocular complications.

## Ocular manifestations among HIV-infected patients

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### ABSTRACT

**Objective:** To discuss the approach and ocular manifestations among HIV patients. **Method:** A Case study. **Results:** A 40-year-old man presented with right eye painless progressive decreased vision for 2 weeks duration. His visual acuity was counting finger right eye with a positive relative afferent pupillary defect and 6/9 left eye. Examination showed non-granulomatous anterior uveitis in both eyes. Fundus examination revealed bilateral posterior uveitis with the right eye showing dense retinitis involving macula area. Systemic workup for both infectious and non-infectious causes was done. Test for both syphilis and HIV serology were positive. The CD4 count was 133c/μl. CT brain showed hypodensity at right basal ganglia consistent with neurosyphilis. Thus, the patient was co-managed with the medical team for ocular syphilis treatment with IV Benzyl Penicillin 4 Mega units 4 hourly for two weeks according to neurosyphilis guideline. He was subsequently started on co-trimoxazole for 6 weeks in view of positive toxoplasma IgG antibodies. Subsequent CT brain showed resolution changes after the treatment. Serial fundus photographs taken during subsequent follow-ups showed improved ocular signs. **Conclusion:** In certain cases of HIV-infected patients, ocular findings may be the first sign manifested due to its ability to affect any organs in the body. Baseline studies for other co-infections are important in the initial workup of a patient newly diagnosed with HIV. Opportunistic infections such as syphilis and toxoplasmosis may occur concurrently as the CD4 count decreases. Prompt treatment should be given to halt the further ocular damage. A multi-disciplinary therapeutic approach is important in managing HIV and opportunistic infections related to HIV.

### KEY WORDS:

*Ocular manifestation, HIV infection*

## Ocular thermal injury secondary to burst steam pipe

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### ABSTRACT

**Objective:** Ocular thermal injury is an Ophthalmology emergency that requires immediate treatment. Common causes in Malaysia were reported to be related to machinery and tools failure. **Method:** Case report. **Results:** We present a case of severe thermal burns on the ocular surface affecting bilateral eyes. A 56-year-old man presented to Emergency Department (ED) following burst steam pipe while working in a factory. He sustained right eye grade 1 and left eye grade 3 according to Dua's classification. His immediate management of thermal related ocular injury and follow up care will be described. **Conclusion:** Improved safety measures and appropriate public education could prevent serious work-related ocular injuries.

### KEY WORDS:

*Thermal ocular injury and burst steam pipe*

## Ocular toxoplasmosis in an immunocompetent individual: A diagnosis dilemma

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### ABSTRACT

**Objective:** To report a case of presumed ocular toxoplasmosis in a healthy individual. **Method:** A case report. **Results:** A 37-year-old healthy lady presented with a three-day history of seeing floaters in the right eye, which was associated with a dull, aching pain. She denied having similar episodes or any predisposing factors. Examination revealed a visual acuity of 6/9 bilaterally. Relative afferent pupillary defect was absent. Right eye anterior segment revealed the presence of a granulomatous inflammation with cells of 2+. The intraocular pressure was initially normal. Subsequently, it was raised requiring topical anti-glaucoma. Posterior segment examination revealed a normal optic disc, exudates just inferior to the inferotemporal vascular arcade measuring two disc diameter with overlying vitritis and vascular sheathing in all four quadrants. There was no retinochoroiditis or any adjacent retinochoroidal scar. The left eye examination was unremarkable. The anterior segment inflammation lessened upon intensive topical steroid commencement. Based on clinical findings and suspicion, oral Bactrim (trimethoprim and sulfamethoxazole) 960 mg BD was instituted. She showed marked improvement with resolved exudates and early scar formation after only two weeks of systemic treatment. This clinical suspicion was later supported by a positive *T. gondii* serology. **Conclusion:** Ocular toxoplasmosis is a potentially blinding infection with a progressive and relapsing course. Atypical presentation such as this case presents a challenge in reaching the correct diagnosis, possibly leading to treatment delay. A high index of suspicion is crucial when faced with this type of diagnosis dilemma.

### KEY WORDS:

*Atypical ocular toxoplasmosis*



## Ocular toxoplasmosis in an immunocompetent host

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### ABSTRACT

**Objective:** To report a case of ocular toxoplasmosis in an immunocompetent individual. **Method:** Case report. **Results:** A 59-year-old man complained of left eye floaters and blurred vision for 2 weeks, without eye redness nor photophobia. He denied any history of contact with neither cats nor high risk behaviour. Vision over right eye: 6/9 and left eye: counting finger (CF). There were left eye circumcorneal congestion with fine keratic precipitates (KPs). No mutton fat KPs, iris nodules or posterior synechiae seen. Anterior chamber was deep with cells of 2+. Fundus showed retinitis at the posterior pole, extending from chorioretinal scar superotemporal to optic disc, measuring 1-disc diameter in size. The right eye was normal. Intraocular pressure (IOP) was 11mmHg and 23mmHg for right eye and left eye respectively. His serum Toxoplasma IgG was reactive and IgM was non-reactive. Infective screening for Hepatitis B, C, VDRL and HIV, Mantoux test and chest X-ray were unremarkable. He was diagnosed with left eye panuveitis secondary to ocular toxoplasmosis and was started on Tablet Bactrim (Trimethoprim/Sulfamethoxazole) 160mg/800mg once daily and commenced on Tablet Prednisolone 0.5mg/kg/day three days later. Subsequent review showed improvement of uveitis. Tablet Bactrim was continued for 6 weeks and systemic corticosteroid was tapered down accordingly. His left eye vision remained as CF two months post treatment. Macula was atrophic with dull foveal reflex. **Conclusion:** Ocular toxoplasmosis is a clinical diagnosis, and immunocompetent individuals are not spared. Therefore, a high index of suspicion is crucial to expedite prompt treatment thus minimizing the risk of irreversible retinal damage.

### KEY WORDS:

*Toxoplasmosis*

## Onodi cell mucocele mimics retrobulbar optic neuritis causing blindness

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### ABSTRACT

**Objective:** To report a patient with Onodi cell mucocele that mimicked retrobulbar optic neuritis. **Method:** a Case report. **Results:** 49 years old Malay gentleman with underlying hypertension presented with 2 days history of recurrence sudden visual loss in the left eye preceded by a frontal headache which was throbbing in nature. He had a history of left eye optic neuritis 9 years ago which improved after being treated with steroid therapy. He denied any history of contact with tuberculosis or any constitutional symptoms. There was no family history of malignancy. On examination, best corrected visual acuity on the left eye was hand movement with a positive relative afferent pupillary defect and the left eye was 6/9. Anterior examination over the right eye showed the presence of lipodermatosclerosis over the conjunctiva temporally. The left eye anterior segment has no significant findings except the cataractous lens. Funduscopy of the left eye showed pink optic disc, clear disc margin, CDR 0.6, macula and retina are normal. Computed tomography showed expansile tissue lesion in the left Onodi cell compressed the intracanalicular segment of the left optic nerve. Magnetic resonance imaging reported as left Onodi cell mucocele that compressed against the left optic nerve, no definite infiltration or intracranial extension. The patient underwent endoscopic microsurgery with left optic nerve decompression. However, there was no improvement in the left eye vision postoperatively. **Conclusion:** Ophthalmologists should be cautious in dealing with retrobulbar optic neuritis as Onodi cell mucocele can compress on the optic nerve. An urgent imaging study and multidisciplinary team approach need to be addressed.

### KEY WORDS:

*Onodi cell mucocele, retrobulbar optic neuritis*

# Orbital apex syndrome secondary to aspergillosis

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## ABSTRACT

**Objective:** To highlight the challenges in investigating and managing orbital apex syndrome secondary to fungal sinusitis. **Method:** a Case Report. **Results:** A 59-year-old lady with underlying DM, CKD, HPT and anaemia presented with persistent severe headache for 2 months, associated with right eye progressive loss of vision for 1 month and swelling for 1 week. Further history revealed a chronic clear nasal discharge for 3 months. There was no history of fever, trauma or constitutional symptoms. On examination, the patient was afebrile and GCS full. Right eye showed ptosis and proptosis but not injected and no chemosis. Right, and left eye vision was CF and 6/36 respectively. Relative afferent pupillary defect (RAPD), total ophthalmoplegia and decreased corneal sensation present in the right eye, whereas the fellow eye showed a limitation in the abduction and decreased corneal sensation as well. Blood investigations revealed high ESR, high CRP with normal WBC. Imaging study was limited to non-contrast MRI due to patient's low Estimated Glomerular Filtration Rate and soft tissue intensity was seen at the right orbital apex, posterior ethmoid and sphenoid sinuses. However, the possible underlying aetiologies being infection, inflammation or neoplastic was unable to be differentiated. Initial management includes empirical systemic antibiotics and systemic antifungal. The patient was referred for endoscopic sinus surgery and right orbital decompression as no improvement of clinical features despite treatment. Intraoperatively, culture and sensitivity showed *Aspergillus Fumigatus* and further treatment was revised accordingly. **Conclusion:** Diagnosing orbital apex syndrome caused by fungal sinusitis is challenging. A high index of suspicion and prompt treatment is important to improve outcome.

## KEY WORDS:

*Orbital apex syndrome, aspergillosis*

# Paediatric unilateral isolated abducens nerve palsy: A malignant brainstem tumour with brain herniation

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## ABSTRACT

**Objective:** To report a case of a highly aggressive paediatric brainstem tumour presented with unilateral isolated abducens nerve palsy. **Method:** a Case Report. **Results:** A premorbidly healthy 9-year-old Chinese boy presented with 2 weeks history of left eye inward deviation. He denied blurring of vision or double vision. Clinically, the patient was well with no constitutional symptoms, fever or symptoms of increased intracranial pressure. Examination showed left eye esotropia with restricted abduction. Binocular diplopia was elicited during ocular motility test. Visual acuity was 6/6 in the right eye, 6/9 in the left eye with no relative afferent pupillary defect. Colour vision was normal. Tangent screen perimetry showed superior peripheral scotoma in the left eye. Both optic discs were hyperaemic and swollen, with the presence of glial tissue on right. Neurological examination revealed unsteady tandem gait but with no involvement of other cranial nerves, sensory or motor systems. An urgent computed tomography of the brain showed herniation of the distal medulla oblongata and cerebellar tonsil with a suspicious pontine parenchymal lesion. A subsequent magnetic resonance imaging of brain confirmed a diffuse expansile pontine lesion causing tonsillar herniation and hydrocephalus, consistent with diffuse intrinsic pontine glioma (DIPG). The patient was referred to neurosurgery team for further management. **Conclusion:** DIPG classically presents with the triad of multiple cranial neuropathies, long tract symptoms and ataxia. In cases with a non-classical presentation, awareness of ophthalmologist on this potential deadly paediatric brainstem tumour prompts an urgent detailed neuro-imaging and life-saving management.

## KEY WORDS:

*Diffuse intrinsic pontine glioma, abducens nerve palsy, brainstem tumour*

## Painful red eye – Dilemma in diagnosis

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### ABSTRACT

**Objective:** To report a dilemma in diagnosing a case of exogenous endophthalmitis in a patient presented with rubeosis and cornea opacity. **Method:** a Case report. **Results:** A 79-year-old lady presented with a 1-week history of pain and redness of the right eye. She was initially treated as rubeotic glaucoma in another centre one month prior to presentation and was on 5 antiglaucoma medications. Her intraocular pressure was under control but she defaulted on her follow-up thereafter. She presented again a month later with a gradual drop in vision and her family members noticed a central corneal opacity. Examination of her right eye revealed no perception to light, an inflamed conjunctiva with a central large cornea stromal abscess. The anterior chamber was shallow with the presence of rubeotic iris superonasally. There was no fundal view and B scan showed multiple vitreous loculations. Left eye showed no abnormalities. She was treated as RE exogenous endophthalmitis possibly from infected corneal bullae of a decompensated cornea due to prolonged high intraocular pressure. She received repeated intravitreal antibiotics since she refused enucleation advised for the poor prognostic eye. Topical and oral antibiotics were commenced and anti-glaucoma medications were continued. Ocular and systemic investigations were normal. Her vision remained the same, but there was an overall clinical improvement in the stromal abscess and vitreous loculations. **Conclusion:** Exogenous endophthalmitis is a clinical diagnosis and a high index of suspicion should be warranted in cases with atypical presentations.

### KEY WORDS:

*Painful red eye, rubeotic glaucoma, exogenous endophthalmitis, antiglaucoma, intravitreal antibiotics*

## Parinaud's syndrome in a case of pineal germinoma

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### ABSTRACT

**Objective:** To report a case of pineal germinoma presenting with Parinaud's syndrome. **Method:** a Case report. **Results:** A 20-year-old gentleman, presented with 3 months history of worsening, throbbing occipital headache which was worse at night, associated with vomiting. It was preceded by intermittent deviation of both eyes but he denied diplopia or blurring of vision. There was no other symptom of neurological deficit. Vision was good in both eyes with no relative afferent pupillary defect but patient had pupillary light-near dissociation. Extraocular movement showed upward gaze palsy with convergence-retraction nystagmus and limited abduction bilaterally. Fundus revealed bilateral swollen optic disc suggestive of papilloedema. Systemic examination was unremarkable. There was tritanomaly on the right eye and mixed deuteranomaly and tritanomaly on the left eye elicited by D-15 colour vision test. Humphrey's visual field showed central scotoma in the right eye. Computed tomography of the brain demonstrated pineal gland mass with obstructive hydrocephalus and generalized cerebral edema. He subsequently underwent ventriculo-peritoneal shunt and image-guided biopsy. Cerebrospinal fluid (CSF) showed negative for malignant cells and histopathologically, the mass was compatible with a germinoma. There was no evidence of hypothalamic-pituitary axis or endocrinological disorder and tumour markers were normal except beta human chorionic gonadotrophin which was markedly raised (679.7 mU/mL). Postoperatively, symptoms were resolved and his eye movements had improved significantly. He was then referred to oncology team for radiotherapy. **Conclusion:** Parinaud's syndrome is an important clinical presentation of pineal germinoma. Pineal germinoma is rare, but is often associated with obstructive hydrocephalus. Therefore, prompt diagnosis, imaging and neurosurgical intervention is necessary.

### KEY WORDS:

*Parinaud's syndrome, dorsal midbrain syndrome, pineal tumour, germinoma*

## Postoperative endophthalmitis due to burkholderia cepacia in contaminated antiglaucoma eyedrops

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### ABSTRACT

**Objective:** To report a case of contaminated antiglaucoma eyedrops causing postoperative endophthalmitis. **Method:** a Case report. **Results:** A 63-year-old gentleman with underlying bilateral eyes primary open-angle glaucoma on three antiglaucoma for six years underwent an uneventful right eye cataract operation. Two weeks postoperatively, he presented with acute right eye reduced vision and pain for two days. His right vision was hand movement with a positive relative afferent pupillary defect. Conjunctiva was injected with chemosis. The cornea was hazy. The anterior chamber was noted with severe inflammation and hypopyon. Fundus was hazy with marked anterior vitreous cells, while B scan showed vitreous loculations. Right eye postoperative acute endophthalmitis was diagnosed, whereby vitreous tap for culture and sensitivity done with injections of antibiotics. Vitreous culture noted grew *Burkholderia cepacia* on day three which was similar in a culture of patient's dorzolamide and timolol eyedrop, the next day. The culture and sensitivity results revealed that this organism was sensitive to ceftazidime. After two weeks of treatment, right eye vision improved to counting finger 1 feet and vitritis reduced after being treated with intravenous ciprofloxacin, four times intravitreal injections and topical vancomycin and ceftazidime, and newly prescribed antiglaucoma eyedrop. **Conclusion:** *Burkholderia cepacia* is found in various aquatic environments. It is a gram-negative, oxidase positive, non-fermentative bacilli that is highly antibiotic resistant. This organism can be found in contaminated antiglaucoma eyedrops and endophthalmitis caused by it can lead to a poor visual outcome. Hence, counselling on handling and usage of antiglaucoma and prescription of new antiglaucoma eyedrops postoperatively is mandatory to prevent endophthalmitis.

### KEY WORDS:

*Postoperative endophthalmitis, burkholderia cepacia, antiglaucoma eyedrop*

## Rampant steroid usage: Whom to blame?

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### ABSTRACT

**Objective:** To report case series of blinding due to the treatment of red eyes in a young patient. **Method:** Retrospective case series. **Results:** 3 medical records of patients were evaluated. Patients' ages were 11,15 and 39 years old. All patients had a history of taking topical steroid over the counter following initial visit to the general practitioner. 2 patients were using steroid for allergic conjunctivitis and 1 patient used for multiple episodes of eye redness. All had been using it for more than a year duration. Presented with advanced glaucoma, legally blind with a constricted visual field. 2 eyes were unable to do visual field due to poor vision (visual acuity: HM and 4/60), 1 eye with 3 quadrant scotoma(6/15), 2 eyes with 2 quadrant scotoma (6/6 and 6/7.5) in 10-2. 2 eyes presented with IOP of more than 30mmHg and 3 eyes with more than 50mmHg. Out of 5 eyes, 3 eyes underwent emergency trabeculectomy and another 2 eyes, the IOP was medically controlled. There was a significant reduction of IOP in both surgical intervention and medical therapy. However, vision remained the same. **Conclusion:** Prolonged administration of steroid without supervision by an ophthalmologist will result in devastating irreversible eye complication which in these cases involved young patients. The easily accessible of steroid eyedrops from the pharmacy without prescription need to be restrained. Awareness of steroid complication should be enhanced among public and medical caregiver.

### KEY WORDS:

*Steroid, glaucoma*

# A rare manifestation of orbital abscess in herpes zoster ophthalmicus

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## ABSTRACT

**Objective:** To present a case with a rare manifestation of orbital abscess in Herpes Zoster Ophthalmicus. **Method:** a Case report. **Results:** This is a case of 58 years old gentleman with underlying hypothyroidism who presented with worsening painful right eye swelling preceded by a vesicular rash which started over the right forehead extending to the tip of the nose for 3 days duration. There was no associated fever, blurring of vision or double vision. On examination, visual acuity of both eyes was 6/9 with no RAPD. The Hutchinson sign was positive. There was a restriction of downgaze over the right eye. Other gazes were normal. There was no associated chemosis or proptosis. The IOP and fundus findings were normal. Left eye findings were unremarkable. The patient was admitted with a diagnosis of herpes zoster ophthalmicus with orbital cellulitis. Urgent CT scan showed right orbital cellulitis with possible small abscess superiorly. Following this, the patient was started on IV Ceftriaxone 1g daily, IV Metronidazole 500mg TDS and T.Acyclovir 800mg 5 times/day for 10 days. His condition improved and was discharged well. **Conclusion:** Patients with herpes zoster ophthalmicus may develop more severe manifestation of the disease such as orbital cellulitis and orbital abscess hence a high index of suspicion must be present and clinical signs need to be looked for carefully.

## KEY WORDS:

*Herpes zoster ophthalmicus, orbital cellulitis, orbital abscess*

# Reactivation of cytomegalovirus retinitis infection in immunosuppressed children

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## ABSTRACT

**Objective:** To describe the ocular features of children with recurrent cytomegalovirus retinitis and their disease outcome with underlying acute lymphoblastic leukaemia. **Method:** a Case report. **Results:** This is a 16-year-old boy with underlying acute lymphoblastic leukaemia (ALL) and prolonged lymphopenia presented with short duration of progressively worsening reduction of vision in both eyes. Examination showed visual acuity on the right eye was 6/18 and 6/24 on the left eye. The optic nerve functions and anterior segment examination were unremarkable. However, posterior segment examination showed bilateral haemorrhagic retinitis with macula star. He was diagnosed with bilateral cytomegalovirus retinitis and was started with a course of intravitreal ganciclovir and subsequently recovered well. Despite the treatment given, he presented again one month later with almost similar symptoms and was then diagnosed as reactivation of CMV retinitis confined to the right eye. He was then readmitted and subjected to multiple injections of intravitreal ganciclovir on the right eye together with systemic treatment. He attained good vision after completed a few session of injections and was then discharged home. **Conclusion:** Viral infections are one of the under-recognized problem in children who is on standard chemotherapy for acute lymphoblastic leukaemia (ALL). A thorough evaluation of children at risk and prompt treatment of cytomegalovirus retinitis are important to prevent long-term visual morbidity. It has a good outcome with early detection and directed treatment and management.

## KEY WORDS:

*Cytomegalovirus retinitis, Reactivation, Acute lymphoblastic leukaemia*

## Red eye raise a red flag: A case of scleromalacia perforans secondary to polyarteritis nodosa

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### ABSTRACT

**Objective:** To describe a rare case of scleromalacia perforans secondary to Polyarteritis Nodosa (PAN). **Method:** a Case Report. **Results:** A 59-year-old female with no known medical illness, presented with right eye painless red eye and blurring vision for 3 weeks duration. She denied a history of ocular trauma. She also sustained right foot ulcer concurrently for 1 month. The most prominent ocular finding was right eye sclera thinning with visible underlying uvea tissue located temporal to corneal measuring 14mm longitudinal and 7mm horizontally. It was extending from 7-11 o'clock. Corneal striae were seen adjacent to the scleral thinning. The conjunctiva was white with a few abnormal vessels on top of scleral thinning with anterior chambers cells and flare. The left eye appeared normal. Right foot ulcer was located at the dorsum area measuring 5 x 6 cm with slough. Her Erythrocyte sedimentation rate (ESR) was 56, C-ANCA positive, a biopsy from foot ulcer showed features of Polyarteritis Nodosa (PAN). She was co-managed with rheumatologist where she was started with oral prednisolone 60mg OD and 6 cycles of IV cyclophosphamide. During 6 months follow up, her right eye was quiet and scleral thinning remained the same without worsening. Her right foot ulcer healed well. **Conclusion:** Scleritis can be the first manifestation of life-threatening systemic vasculitic disorder as demonstrated in this case. Thus, the ophthalmologist plays an important role where early recognition and prompt treatment is important.

### KEY WORDS:

*Scleromalacia perforans, polyarteritis nodosa, red eye*

## Relapsing Vogt-Koyanagi-Harada syndrome (VKH)

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### ABSTRACT

**Objective:** To illustrate a challenging case of VKH and its outcome. **Method:** a Case report. **Results:** A 45 years old, lady presented with bilateral red eyes associated with photophobia and gradual blurring of vision for 2 months. She denied a history of eye trauma, eye surgery and chronic joint pain. Snellen Visual acuity was 6/18 and IOP was normal in both eyes. The anterior segment showed chronic anterior uveitis with a presence of anterior chamber cells and extensive posterior synechiae. Limitation of fundus view due to seclusio pupillae. B scan showed normal posterior segment. She was treated with intensive topical steroid. However, she developed worsening of vision and loss of hearing. Visual acuity was counting finger (CF) at near. Repeated Bscan showed thickened choroid bilaterally. She was treated as VKH with high dose systemic steroid and then continued with tapering doses of oral steroid over 3 months. Initially, she responded with treatment and showed improvement of vision. She has relapsed VKH whenever she defaulted on treatment or on low dose steroid. Her visual acuity remained poor and fundus showed sunset glow. **Conclusion:** Establishment of VKH diagnosis is difficult at an early stage. Initial presentation can be atypical and it can mimic any cause of chronic anterior uveitis. Relapsing VKH yields poor visual prognosis.

### KEY WORDS:

*Relapsing Vogt Koyanagi Harada, long-term steroid treatment*



# Rituximab in chronic relapsing inflammatory optic neuropathy (CRION)

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## ABSTRACT

**Objective:** To discuss a case of chronic relapsing inflammatory optic neuropathy (CRION) that had a better response to rituximab in adjunct with corticosteroids compared with other immunomodulating agents. **Method:** A case report. **Results:** A 29-year-old gentleman presented with sudden onset of right eye blurring of vision. He has underlying well controlled bronchial asthma. His visual acuity of the left eye was 6/9 but right eye was finger counting with a relative afferent pupillary defect (RAPD) grade 1 and enlarged blind spot on Bjerrum test. The anterior and posterior segment examinations were otherwise unremarkable. CT orbit showed thickening of the right optic nerve. His investigations revealed no evidence of demyelination, autoimmune disease, infections or sarcoidosis. He had 4 relapses in 6 months despite being given IV methylprednisolone, plasmapheresis, IV immunoglobulin. Oral prednisolone was not able to be tapered off. Methotrexate and subsequently mycophenolate mofetil were added on to prednisolone over the course of 6 months. However right eye pain and RAPD grade 1 persisted despite treatment. He was subsequently started on IV rituximab with a tapering dose of prednisolone and his symptoms have improved with no new relapse in 6 months since the first dose of IV rituximab. **Conclusion:** The symptoms and signs of CRION responded well to corticosteroid therapy but rituximab aided in its remission in which its role in CRION is yet to be fully understood.

## KEY WORDS:

*Rituximab, relapsing, optic neuritis, immunotherapy*

# Septic cavernous sinus thrombosis: A case report

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## ABSTRACT

**Objective:** To report a case of septic cavernous sinus thrombosis. **Method:** a Case report. **Results:** A 39-year-old male, with no medical history presented with 2 weeks of left-sided headache, 2 days history of sudden onset left eyelid swelling, pain and blurring of vision. He had dental caries but no sinusitis or an earache. On examination, his temperature was 38.2°C. Right eye vision was 6/6 and Left eye counting finger. Reverse RAPD was negative. There was LE periorbital oedema, ptosis, proptosis, chemosis, the pupil was fixed and dilated. Fundus examination revealed pink optic disc with cup-disc ratio of 0.5, no papilloedema, vessels, retina and macula normal. Intraocular pressure over LE was 35 with complete ophthalmoplegia and reduced sensation over the left forehead. RE examination and neurological examination was normal. Blood investigation showed Haemoglobin 12.5, TWBC 14.1, Platelet 202 and ESR 94. CECT/CTA of brain and orbit showed hypodense filling defect within the left superior ophthalmic vein and bilateral cavernous sinus suggestive of thrombosis and orbital cellulitis. Infective screening, blood and urine cultures were negative. The patient was co-managed with the neuro-medical and dental team. He was treated as LE orbital cellulitis with high IOP and acute surgical 3rd,4th,5th,6th cranial nerve palsy secondary to cavernous sinus thrombosis. The patient was treated with anti-glaucoma, topical antibiotics, analgesics, intravenous Tazosin, subcutaneous Fondaparinux bridged with Warfarin after which his symptoms slowly improved. **Conclusions:** Cavernous sinus thrombosis is a rare but serious disease associated with significant morbidity and mortality. Early diagnosis and prompt treatment are crucial to improving outcomes in this potentially fatal disease.

## KEY WORDS:

*Cavernous sinus thrombosis, fatal, anticoagulant*



## Sinonasal undifferentiated carcinoma - A rare cause of proptosis in elderly

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### ABSTRACT

**Objective:** To report a rare case of proptosis cause by sinonasal undifferentiated carcinoma in elderly. **Method:** a Case report. **Results:** A 71-year-old Malay gentleman with underlying asthma presented with progressive left proptosis for 1 month. It was associated with intermittent diplopia and anosmia. His vision is good. There was no nasal congestion or epistaxis. Visual acuity in the right eye was 6/9 and the left eye was 6/18. There was no relative afferent papillary defect. Examination showed swollen of the left nasal bridge. There was left axial proptosis with restriction of eye movement in all gazes. The conjunctiva was red and chemosed. Anterior segment of both eyes was unremarkable with normal intraocular pressure. Fundoscopy was also normal in both eyes. Other cranial nerves examination was normal. Nasoendoscopy assessment by ORL team revealed mass filled the left nasal cavity. CT scan of paranasal sinuses showed a mass in nasal cavity extend to maxillary, ethmoid and frontal sinuses and also to left orbital cavity and cavernous sinus. Biopsy of the mass revealed Sinonasal Undifferentiated Carcinoma. Hence the diagnosis of sinonasal undifferentiated carcinoma with extension into the left orbital cavity and cavernous sinus was made. The patient underwent a series of radiotherapy regime. The proptosis improved. **Conclusion:** Sinonasal undifferentiated carcinoma is a rare cause of proptosis in the elderly. High degree of suspicious may facilitate the diagnosis and management.

### KEY WORDS:

*Proptosis, sinonasal undifferentiated carcinoma*

## Solitary fibrous tumour: A rare orbital involvement

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### ABSTRACT

**Objective:** To report a rare case of Orbital solitary fibrous tumour in a child. **Method:** a Case report. **Results:** A 10-year-old boy presented with a three-month history of right eye painless progressive proptosis and reduced vision. It was associated with diplopia on looking upwards and left gaze. Examination revealed right eye proptosis, hypoglobus and limited adduction. The vision was 6/12, corrected to 6/9 with the pinhole. There was hyperaemic disc on funduscopic examination. The left eye finding was unremarkable. Magnetic Resonance Imaging (MRI) of the orbit revealed an enhanced lobulated intraconal multicystic mass of the right orbit, which was initially thought to be a veno-lymphatic malformation. Tumour resection was done and histopathological examination revealed a solitary fibrous tumour with CD34, STAT6 and CD99 positivity. At 3 weeks postoperatively, his right eye was less proptosed and his vision improved to 6/9. **Conclusion:** Solitary fibrous tumour (SFT) is a rare spindle-cell tumour, originally thought to occur exclusively in the pleura, but has been recently described in extrapleural sites, including the orbit. Orbital SFT is a rare lesion, moreover in the paediatric age group as it typically affects the middle-aged group. The diagnosis of orbital SFT cannot be made with certainty on clinical or radiological evaluation alone. It requires immunohistochemical studies for confirmation. It is important to be aware of this tumour and includes it in the differential diagnosis of paediatric orbital tumours.

### KEY WORDS:

*Solitary orbital tumour, orbital tumour, extrapleural*

## Successfully treated culture negative bleb-related endophthalmitis

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### ABSTRACT

**Objective:** To illustrate a case of successfully treated culture negative bleb-related endophthalmitis. **Method:** a Case report. **Results:** A 70-year-old lady with background hypertension, chronic kidney disease, bilateral open-angle glaucoma post-trabeculectomy 10 years ago, presented with worsening right eye pain and reduce vision associated with a headache and vomiting for one-week duration. There was no preceding trauma. Examination of the right eye revealed a vision of perception to light, intense conjunctival inflammation, and purulent material over the superonasal bleb with a slow leak at 1 clock hour. There were fibrin and hypopyon in the anterior chamber with an intraocular pressure of 40mmHg. Dense cataract over the affected eye limits fundus view. B-scan showed vitreous loculation. Intravitreal Vancomycin and Ceftazidime were administered and repeated for a total of 3 injections. Intensive topical Moxifloxacin was administered and topical corticosteroid was added later. Intraocular pressure was controlled with oral and topical aqueous suppressants. Vitreous, anterior chamber tap and septic workup showed a negative yield of organism, hence oral clarithromycin was put in on top of oral ciprofloxacin. Two weeks post-treatment, her vision returned to baseline of hand movement, normalised intraocular pressure, contracted hypopyon with resolved bleb abscess and leakage. Repeated B-scan revealed the absence of loculation. **Conclusion:** Bleb-related endophthalmitis is a devastating complication of bleb-related infection. Early and aggressive treatment is crucial to optimise visual recovery and to prevent further extension to the adjacent ocular structure.

### KEY WORDS:

*Bleb-related endophthalmitis*

## Surgical approach of congenital sclerocorneal cyst

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### ABSTRACT

**Objective:** Congenital sclerocorneal cyst is rare and various surgical methods have been reported. However, there is no consensus surgical approach for the management of the cyst. **Method:** a Case report. **Results:** Congenital sclerocorneal cyst is caused by the proliferation of corneal epithelial cells within the cornea and scleral stroma during development. The patient is usually treated conservatively. However, surgical intervention is offered when sclerocorneal cyst shows progression and threatens the sight. Various surgical methods have been reported in the literature. However, there is no consensus surgical approach in the management of the cyst. High recurrence rate has been reported after surgical intervention including penetrating keratoplasty. We report a case of an 8-year-old boy, with right eye progressive sclerocorneal cyst threatening his vision. Irrigation of corneoscleral cyst with sterile water and 5-Fluorouracil, curettage, excision of the scleral cyst and scleral patch graft was performed. Three months of post-operative review showed no recurrence of the cyst. **Conclusion:** Irrigation of corneoscleral cyst with sterile water and 5-Fluorouracil, curettage, excision of the scleral cyst and scleral patch graft may provide a good outcome in the treatment of sclerocorneal cyst.

### KEY WORDS:

*Corneoscleral cyst, 5-Fluorouracil, curettage, excision of scleral cyst, scleral patch*

# Terengganu experience in studying an outcome of intravitreal injection in ophthalmology clinic: A prospective cross-sectional study

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## ABSTRACT

**Objective:** To study an alternative way to deliver an outstanding and better service patient subjected for intravitreal injections (comparison between injection in OT and clinic/office setting). **Method:** a Prospective cross-sectional study was done from January till February 2018. The data were taken from HIS system (computerised patient's details). Re-evaluation cross-sectional prospective study was done in March until April 2018. The study had been carried out after implementation of the remedial actions. All subjects were recruited from those who had attended the Ophthalmology Medical Retina Clinic in Hospital Sultanah Nur Zahirah. **Results:** Total patients injected in OT: 73 patients (March and April). The average OT waiting time is 235 minutes and the average procedure time is 47 minutes. The longest waiting time in OT for a patient is 380 minutes and the procedure time was 100 minutes. The shortest waiting time in OT was 71 minutes and the procedure time was 12 minutes. From the above analysis of data, we have changed the location of intravitreal injection to the clinic setting without compromising the safety of the procedure and the results are as follows: Total patients injected in the clinic was 107 patients (March and April) an increment of 46.5%. The average clinic waiting time was 65 minutes (reduction of waiting time by 72.3%) and the average procedure time was 14 minutes (reduction of procedure time by 70.2%). The longest waiting time in the clinic was 235 minutes and the procedure time was 43 minutes. The shortest waiting time in the clinic was 5 minutes and the procedure time was 4 minutes. **Conclusion:** This study showed the effectiveness of intravitreal injection in the clinic for all patients subjected and attended the Ophthalmology Medical Retina Clinic (Procedure Room) without compromising patients care and safety by evidence of no cases of endophthalmitis among all these patient.

## KEY WORDS:

*Intravitreal injection*

# The BEST's family

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## ABSTRACT

**Objective:** To report two generations of Best's disease in a family. **Method:** a Case report. **Results:** A healthy 18-year-old lady presented with complains of bilateral gradual painless blurring of vision for eight years accompanied by a recent onset of central scotoma. Her best corrected visual acuity (BVCA) was 6/36 for both eyes. Anterior segment examinations were unremarkable. Fundus examination revealed sub-retinal RPE hypopigmentation and clumping lesions at the macula. OCT showed a medium sized sub-retinal area at macula showing RPE disruption and thickening suggestive of pigment accumulation. A clinical diagnosis of Best's disease was made. Further enquiry showed the patient's father and all her six siblings had a similar complaint in the past. Unfortunately, their BVCA were poor and fundus examinations showed mainly macula scarring with chorioretinal atrophy. The mapping of their family tree disclosed the presence of a consanguineous marriage between their grandparents who were first cousins. **Conclusion:** Consanguineous marriage has been practised globally since the early existence of human society. Thou there is a shift in practice towards non-consanguineous marriage in the recent times, this emphasizes the importance of thorough family history taking and genetic counselling in order to establish the correct diagnosis and monitor the condition for severe complication such as choroidal neovascularization (CNV). Hence measures should be taken to screen family members and educate them before they lose their vision.

## KEY WORDS:

*Bests disease, consanguinity, vitelliform macular dystrophy*

# Traumatic optic neuropathy: Three case series with different presentations

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## ABSTRACT

**Objective:** Traumatic Optic Neuropathy (TON) can result either from direct or indirect injury to the optic nerve, following trauma to the head region. Diagnosis of TON is usually made based on clinical signs as the optic nerve injury will not be apparent in radiological imaging. **Method:** Case series. **Results:** We report 3 cases of TON presented with various mechanisms of injury. Case 1: A man complained of sudden left eye visual loss after collided with another motorbike in an accident. The vision was only perception to light OS with a positive relative afferent pupillary defect (RAPD) while 6/6 vision OD. CT brain showed multiple orbital walls fracture but no obvious optic nerve impingement. Intravenous Methylprednisolone was given for 3 days but no improvement of vision observed. Case 2: A 4-year-old boy was found crying with bleeding from his left eye. Parents noticed bloody scissors nearby. Urgent CT orbit showed hematoma of superior and medial rectus with irregularities of the middle part of the left optic nerve. Examination under anaesthesia revealed deep laceration wound of left upper eyelid involving orbicularis oculi, superior and medial rectus muscle hematoma with positive RAPD. Three days of intravenous Methylprednisolone followed by 11 days of oral Prednisolone was given but no visual improvement observed. Case 3: A man allegedly fell with unknown mechanism from his motorbike. He sustained left hemi-face de-gloving injury with multiple facial bones open fracture involving lateral orbital wall as demonstrated in CT scan imaging. Primary wound closure and open reduction internal fixation were done. Day 2 postoperatively, he developed RAPD, the vision was 6/60 OS with reduction of optic nerve function hence treated as TON. Three days intravenous Methylprednisolone given followed by 11 days of oral Prednisolone. He gained 6/24 vision after treatment. Repeated CT orbit suggests possible optic nerve avulsion. **Conclusion:** Diagnosis of TON is mostly made based on clinical features even without imaging evidence and early treatment is recommended if the general condition is stable. Proper imaging helps to rule out direct trauma to the optic nerve, which urgent surgery is indicated.

## KEY WORDS:

*Traumatic optic neuropathy, steroid, orbital wall fracture, head trauma*

# Visual loss in a child due to craniopharyngioma: A rare presentation

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## ABSTRACT

**Objective:** To report a rare presentation of craniopharyngioma in a 7-year-old boy. **Method:** a Case report. **Results:** A 7-year-old Malay boy with no known medical illness presented with sudden onset of painless blurring of vision of both eyes for 2 months. There was a loss of weight of about three to four kilograms within a month. On examination, visual acuity of the right eye was 6/36 and left eye was 1/60. There was left eye relative afferent pupillary defect with left eye exotropia. The extraocular muscle movement, intraocular pressure, bilateral anterior and posterior segments were unremarkable. Subsequently, Magnetic Resonance Imaging brain was done and it showed a suprasellar mass that may represent a craniopharyngioma compressing the optic chiasma. **Conclusion:** Loss of vision can be a rare presenting feature of craniopharyngioma. The usual presentations are visual field defects, pituitary insufficiency, and increase intracranial pressure. A high suspicion and early brain imaging may be helpful in diagnosing children with sudden onset of blurring vision.

## Vitiligo in the eyes

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### ABSTRACT

**Objective:** To report a case of unilateral APMPPE (Acute Posterior Multifocal Placoid Pigment Epitheliopathy). **Method:** a Case report. **Results:** A 32-year-old man presented with left paracentral vision loss and photopsia for one month. His visual acuity on the left eye was 6/18 and right was 6/7.5 with no relative afferent papillary defect. Anterior segment examination bilaterally was unremarkable with intraocular pressure of 17mmHg. Fundus examination of the left eye revealed multifocal white placoid lesions at macula superior to the fovea. Optic disc appeared pink and not swollen, vitreous was clear. Right fundus examination was normal. Left Humphreys visual field testing showed central scotoma with inferior field defect and enlarged blind spot. Right eye showed no visual field defect. Fundus Fluorescein Angiography of the left eye revealed multiple hypofluorescent lesions corresponding to the placoid lesions during its early phase. A diagnosis of APMPPE was made and he was conservatively managed. On subsequent follow-up, his vision improved to 6/7.5. Some lesions on fundus disappeared and some replaced with hyperpigmentation. However, OCT showed progressive thinning of retinal nerve fibre layers. The visual field defect although persistent involved a smaller than before on the Humphreys visual field. Neurologic and systemic workups were unremarkable. No exact aetiology was found, except blood investigations showed leucocytosis with lymphocyte predominance. **Conclusion:** Although APMPPE is a rare condition and is usually bilateral. It could still present unilaterally and should be suspected when young healthy adults present with atypical and sudden visual field loss.

## Warthin's tumour, active thyroid eye disease and latent tuberculosis in a man

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### ABSTRACT

**Objective:** To present a case of active thyroid eye disease and accidental findings of Warthin's tumour and latent tuberculosis. **Method:** A 53-year old Malay man presented with bilateral progressive restricted eye movements in all gazes associated with diplopia, eye redness and fullness of upper lid for 1 month. Visual acuity was 6/9 bilaterally. RAPD was negative. There was mild red desaturation on the right eye, other optic nerves examinations unremarkable. There was no proptosis. Right fundus examination revealed optic disc swelling with choroidal striation and tortuous but not dilated retinal vessels. Left fundus was normal. Systemic examination revealed 4x4 cm swellings at both parotid areas with palpable submandibular lymph nodes. The thyroid gland was not palpable and the patient was clinically euthyroid. **Results:** Thyroid function test revealed subclinical hyperthyroidism with anti-thyroid peroxidase of 600IU and anti-thyroglobulin of 4000IU suggestive of Grave's disease. CT scan of the neck revealed encapsulated enhancing lesion from both parotid tail suggestive of Warthin's tumour and multiple enlarged cervical lymph nodes. TB workup was done, which revealed an elevated ESR of 35mm/hr with a positive Mantoux test and thus he was treated as latent tuberculosis. FNAC of the neck swellings confirmed the diagnosis of Warthin's tumour. Systemic steroid was then started for sight-threatening Grave's disease. He is planned for bilateral superficial parotidectomy soon. **Conclusion:** There was a dilemma in diagnosing this patient as he presented with multiple pathologies. There were also challenges in managing both TED and latent TB due to the presence of infection and autoimmune conditions simultaneously.

# Why patients fail pre-operative cataract surgery assessment

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## ABSTRACT

**Objective:** To report the incidence and identify causes of postponement during pre-operative cataract surgery assessment in Hospital Selayang. **Method:** This is a retrospective study, which examined the number of visits to Eye Clinic, Hospital Selayang for pre-operative cataract surgery assessment every Thursday from November 2016 to October 2017. We analysed the total amount of patients, the number of defaulters and reasons for failing pre-operative assessments resulting in multiple visits to the clinic. **Results:** A total of 811 appointments were scheduled for pre-operative cataract surgery assessment during the analysed period. There were 146 defaulters (22.9%), 410 who passed the pre-operative assessment (50.5%) and 255 who failed and required more than 1 visit for further investigations (39.4%). The main reasons for patients failing pre-operative assessment were uncontrolled hypertension (35.8%), cardiac diseases (26.0%), lid infections (16.7%) and uncontrolled diabetes mellitus (13.9%). There were 17 cases where patients had overlapping causes for postponement. **Conclusion:** Nearly a third of cases listed for cataract surgery fail their pre-operative assessment. Apart from defaulters, uncontrolled medical conditions account for the majority of postponement of cataract cases. This highlights the importance of pre-operative assessment in elective surgery among the Malaysian population.

## KEY WORDS:

*Pre-operative cataract surgery assessment, causes of postponement*