

## Abstract 5

### "VECTOR" SURGICAL TECHNIQUE FOR SEVERE PROLIFERATIVE DIABETIC RETINOPATHY

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#### **Introduction:**

Proliferative diabetic retinopathy (PDR) represents one of the most challenging complications of diabetes mellitus, often leading to severe visual impairment if left untreated. The hallmark features of PDR, including neovascularization and fibrovascular proliferation, necessitate timely and meticulous management to prevent vision-threatening complications such as vitreous hemorrhage and tractional retinal detachment. While various treatment modalities exist, including laser photocoagulation and intravitreal injections, severe cases of PDR often require surgical intervention to address the underlying pathology comprehensively.

The VECTOR surgical technique emerges as a promising approach for managing severe PDR, offering a multi-faceted strategy that addresses the diverse pathophysiological mechanisms involved. VECTOR, an acronym for Vitrectomy, Endodiathermy, Photocoagulation, and Revision, encompasses a combination of surgical maneuvers aimed at achieving optimal outcomes in challenging cases of PDR. By integrating vitrectomy to remove vitreous traction, endodiathermy to cauterize neovascularization, photocoagulation to treat ischemic areas, and meticulous revision to ensure completeness, the VECTOR technique provides a comprehensive solution to the complex pathogenesis of severe PDR.

In this video, we aim to evaluate the efficacy and safety of the VECTOR surgical technique in the management of severe PDR. We endeavor to shed light on the potential of the VECTOR technique as a valuable tool in the armamentarium of retinal surgeons for combating the devastating effects of severe PDR.

## Abstract 27

### **SURGICAL MANAGEMENT OF COMPLEX FULL THICKNESS MACULAR HOLES WITH RETINAL AUTOGRAFTING**

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#### **Introduction:**

##### Purpose

Complex full thickness macular holes (FTMH) include giant macular holes, macular holes that have failed conventional repair, secondary macular holes as well as macular holes associated with pathological myopia. Many surgical techniques and adjuncts have been described with varying degrees of success. The purpose of this presentation is to describe the indications and techniques for and outcomes of the surgical repair of complex FTMH with retinal autografts.

##### Methods

The indications for surgery included giant FTMH following severe blunt trauma, large recalcitrant FTMH which had failed vitrectomy and ILM peeling, FTMH secondary to parafoveal telangiectasia (PFT), as well as myopic FTMH.

The surgical technique involved vitrectomy with 23G instrumentation in all cases. Thorough vitrectomy with posterior vitreous detachment was performed. The harvesting site for the retinal autograft was chosen just beyond the superior arcade. A localised bleb was raised by subretinal injection of balanced salt solution, followed by dissection of an oversized pedicled graft. Following fluid air exchange, the graft was detached from its pedicle and manipulated into the hole. Perfluoropropane tamponade was used in all cases and patients were instructed to posture face down.

##### Results

Anatomical success with integration of the graft and hole closure was achieved in all cases. Vision improved in most cases with at least half of the vision loss regained. Complications included transient intraocular pressure elevation and cataract formation in cases which were still phakic.

##### Conclusion

Retinal autografting is an effective and simple approach to the surgical management of complex, recalcitrant macular holes.

## Abstract 34

### NPB MACULAR BUCKLE COMBINED PARS PLANA VITRECTOMY FOR MACULAR HOLE RELATED RETINAL DETACHMENT

Erakgun T.\*

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#### **Introduction:**

Macular buckling is a technique that can improve the anatomic and functional outcomes of highly myopic patients with retinal detachment due to macular hole or myopic macular schisis by counteracting the staphyloma action.

#### **Materials and methods:**

A female patient of 66 years old underwent pars plana vitrectomy with ILM peeling for a myopic macular hole. The macular hole was not closed after the absorption of the gas. One month later, a macular hole related retinal detachment revealed. The patient underwent NPB macular buckle combined with pars plana vitrectomy (PPV) and silicone oil injection.

#### **Results:**

At the postoperative first day, macular hole was closed and retina reattached under silicone oil. At the first month visit, best corrected visual acuity (BCVA) improved from hand motions (preoperatively) to 0.1 under silicone oil. The macular hole was still closed and retina reattached. Pre and postoperative OCT images with the surgical video are included and the operation technique is discussed within.

#### **Conclusions:**

NPB macular buckle combined pars plana vitrectomy is an effective and promising therapeutic option in macular hole related retinal detachment.

#### **Sources:**

- 1- Gonvers M, Machemer R. A new approach to treating retinal detachment with macular hole. Am J Ophthalmol 1982;94:468-72.
- 2- Parolini B, Palmieri M, Finzi A, Frisina R. Proposal for the management of myopic traction maculopathy based on the new MTM staging system. Eur J Ophthalmol. Published online 2021.

## Abstract 35

### TIPS AND TRICKS IN MACULAR HOLE RETINAL DETACHMENTS

Ghoneem M.\*

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#### **Introduction:**

Macular hole retinal detachments are one of the most technically challenging cases for any vitreoretinal surgeon. In this video, I present my tips and tricks for managing such cases. My management differs if the case is myopic or non-myopic. In Myopic eyes, the main challenging point is the long axial length of the eye making the ILM beyond the reach of our instruments. Also in long eyes, ILM forceps are usually directed more vertically which makes the shaft of the forceps hit non-contact viewing lenses. Using a contact lens viewing system helps make the ILM more reachable without the instrument's shaft hitting the non-contact lenses and gives unparalleled image quality. I also avoid using PFCL in myopic eyes as this will make the macula deeper and away from the surgeon. Flattening the macula in myopic eyes with PFCL highlights the underlying chorioretinal degeneration and therefore we lose the contrast between the blue-stained ILM and the pale detached retina. In non-myopic eyes we can use PFCL to flatten the posterior pole and make ILM flap creation easier.

## Abstract 42

### UNSTAPLING THE RETINA FROM A FIRECRACKER INJURY

Rohit A.\*

*Dr. ~ Indore ~ India*

#### **Introduction:**

##### PURPOSE-

A 12-year-old girl suffered an unfortunate accident while innocently watching a firecracker display, leading to a large metallic stapler pin becoming a foreign body lodged within her retina. Child presented with perfectly sealed corneal tear with normal anterior chamber depth. There was traumatic cataract with both anterior and posterior capsular tear. This incident presented a unique challenge due to the delicate nature of the retina and the complexity involved in removing such a large, yet potentially vision-threatening, foreign object from a 12-year-old child.

##### VENUE-

Rohit eye hospital and child care centre, Indore, M.P. 452001

##### METHODS-

Under all aseptic precautions, corneal incisions were made and case was started as a regular phacoemulsification surgery. Capsulorhexis was done keeping in mind to include the ruptured anterior capsule within the rrhexis. Cataract removal was done using irrigation and aspiration by infusion canula and vitrector respectively. After this 3 pars plana 25G ports were made and posterior capsulotomy was made, following which vitrectomy was done and IOFB was dislodged from the retina. PFCL was injected over posterior pole to prevent any injury to the posterior pole. Utilizing chandelier and bimanual approach the STAPLER PIN WAS INTERNALLY ROTATED in the vitreous cavity and then successfully extracted from 3 mm corneal incision without causing further damage to the retina, preserving the child's vision. After this silicon oil was injected and endolaser was done to the retinal tear, where IOFB was lodged.

The surgery was meticulously planned and executed the removal procedure with precision.

##### RESULTS-

Post-operatively, the girl's recovery was closely monitored with best corrected vision improving to 6/9p with pinhole. Patient is planned for silicon oil removal and secondary IOL implantation in the bag after 3 months.

##### Conclusion-

This case underscores the critical importance of safety measures during public displays and highlights the remarkable advances in ophthalmic surgery that enable the successful treatment of such intricate and high-risk injuries, even in paediatric age group.

## Abstract 43

### STORY OF A CONJOINT TWINS!!

Agrawal R.\*

*Dr ~ Indore ~ India*

#### **Introduction:**

##### **PURPOSE-**

This patient was referred to us by a cataract surgeon with the history of left eye cataract surgery with PCR, leading to IOL drop. On examination, IOL with mild Vitreous haemorrhage was seen inferiorly in vitreous cavity.

Vitrectomy with IOL explantation with secondary IOL was planned for the patient.

But surprisingly, there were 2 IOLs in the vitreous cavity lying one over another!!

##### **VENUE-**

Rohit eye hospital and child care centre, Indore, M.P. 452001

##### **METHODS-**

Under all aseptic precautions, 3 port 25G pars plana vitrectomy was started, after clearing the vitreous hemorrhage inferiorly, it was noticed that patient had not one, but two IOLs dislocated in vitreous cavity.

Both the IOLs were engaged to each other (just like “conjoint twins”) at the vitreous base. Posterior vitreous detachment was induced and after proper base shaving both IOLs were disengaged.

Scleral tunnel from the previous surgery was reopened for IOL explantation. With the help of a intraocular Alcon 25G forceps, Both the IOLs were lifted one by one in the anterior-vitreous cavity and explanted through the scleral tunnel.

Following this iris claw lens was implanted for the patient and case was closed.

##### **RESULTS-**

Post-operatively, patient was comfortable and lens was well centered. Patients vision improved to 6/9 partial.

##### **Conclusion-**

For the cases of IOL drop, a complete and thorough vitrectomy is necessary. Before explanting the lens PVD must be induced to prevent traction over retina and avoid retinal breaks. Also, a proper history or summary must be attached with all the patients before referring them for further management so that the operating surgeon can be mentally prepared for such surprises.

## Abstract 46

### EVERY HOPLESS CASE DESERVES A CHANCE

Abdullah O.\*

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#### **Introduction:**

An elderly male patient after falling on the sharp object secondary to syncopal attack, developed left ruptured globe. Three operations performed but ended in no light perception. Referred to our clinic for further interventions. On slit-lamp examination all retina was collected in anterior chamber. The B-scan demonstrated funnel shaped Retinal detachment with slits of remained suprachoroidal hemorrhages. Meticulous dissection performed as for ROP, then 360 degree retinectomy performed, retina flattened and silicon oil 5000 csinjected. In the next day the vision was light perception positive, and flat retina on OCT. In the First postoperative month the visual acuity became counting finger 1meter with flat retina.

## Abstract 59

### APHAKIC CORRECTION : AN ECONOMICAL SOLUTION

Grover A.<sup>[1]</sup>, Sharma R.<sup>\*[2]</sup>

<sup>[1]</sup>ASHIMA GROVER ~ ROORKEE ~ India, <sup>[2]</sup>RAHUL SHARMA ~ ROORKEE ~ India

#### Introduction:

An novel approach to aphakic correction after nucleus drop, that is Sutureless, Glueless and can be performed with an IOL (Intra Ocular Lens) worth just 1 Dollar.



## Abstract 60

### ENGAGE-SUCK-PEEL: A NOVEL TECHNIQUE FOR EPIRETINAL MEMBRANE (ERM) PEELING USING VITRECTOMY CUTTER

Mittal S.\*

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#### **Introduction:**

: Epiretinal membrane (ERM) peeling traditionally begins with a “pinch and peel” approach, often utilizing instruments like the internal limiting membrane (ILM) forceps. In this study, we introduce a straightforward, cost-effective, and time-saving technique for ERM peeling that leverages the vitrectomy cutter without the need for micro-forceps or other specialized instrumentation.

#### **Materials and methods:**

We conducted a prospective consecutive case series involving 25 eyes of 25 patients who underwent pars plana vitrectomy (PPV) for ERM. The surgical procedure employed our newly developed peeling technique. In all cases, a 25/27-gauge three-port PPV was performed. The precise edge of the ERM was initially identified either preoperatively through fundus examination or intraoperatively. After completing the vitrectomy, the cutter’s opening was directed toward the ERM edge. The cutting function was deactivated using the foot pedal. The membrane was gently scratched, and its edge was cautiously lifted. Gradually increasing the vacuum, we engaged the ERM edge within the cutter. Once proper engagement was achieved, we further elevated the membrane edge, maintaining stable vacuum. To complete the peeling, we intermittently released the membrane edge by stopping aspiration via the foot pedal or activating reflux. This stepwise process allowed efficient removal of the entire membrane using the vitreous cutter alone.

#### **Results:**

Our study cohort comprised 13 females and 12 males, with a mean age of 64.6 years (range: 46–84). Membrane removal was successfully accomplished in all cases without the need for micro-forceps. Patients were followed for a minimum of 6 months. Notably, significant improvements in visual acuity and reduction of central foveal thickness were observed across all cases. No intra- or post-operative complications were reported.

#### **Conclusions:**

The vitrectomy probe-based ERM peeling technique represents a simple and safe alternative. Furthermore, the 25-gauge cutter demonstrated superior effectiveness compared to the 27-gauge cutter, facilitating the easy removal of large membranes.

#### **Sources:**

nil

## Abstract 75

### A PVR CASE

Abouelsaad M.\*

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#### **Introduction:**

A 49 yo male with neglected rhegmatogenous detachment and advanced grade C PVR involving posterior pole planned for phacovitrectomy.

As PVD was difficult to initiate, use of suction active and passive, scraping retina to elevate an edge of the hyaloid, followed by extensive ILM peeling on a totally detached retina till the edge of the temporal break. PFC was then used as an extra hand to stabilize posterior pole while shaving mid periphery and periphery.

VA improved in first month from hand motion to 2/60, retina stable with no signs of PVR.

So, ILM peeling, use of forceps/scraping to pull hyaloid, PFC and shaving from posterior to anterior, are all methods to clear PVR from the surface of the retina

Video is 8:25 min, 35 minutes title screen and disclosure, can be removed or sped up

## Abstract 77

### AMNIOTIC MEMBRANE GRAFT FOR PERSISTENT MACULAR HOLE FOLLOWING RETINAL DETACHMENT REPAIR IN KNOBLOCH SYNDROME

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#### **Introduction:**

**Purpose:** To report successful use of amniotic membrane graft for persistent macular hole in Knobloch syndrome associated retinal detachment.

#### **Observation:**

A 7 years old female with Knobloch syndrome developed a macular hole-associated retinal detachment in the right eye. The retina was reattached with Pars Plana Vitrectomy (PPV), Internal Limiting Membrane (ILM) peel and silicone oil tamponade. Although the retina was reattached, the macular hole persisted and was located in a pseudocolobomatous macula. Following silicone oil emulsification and exchange twice, the macular hole was repaired with an amniotic membrane graft with silicone oil removal in an effort to avoid subsequent frequent silicone oil exchanges. The retina remained flat 6 months later and the hole closed.

**Conclusion and importance:** Amniotic membrane graft is a viable option for persistent macular hole following macular hole-associated retinal detachment repair in Knobloch children. This may avoid oil dependence for retinal attachment in these young kids who would otherwise likely require frequent oil exchanges under general anesthesia over their life span.

## Abstract 79

### BLIND PARS PLANA PARTIAL CORE VITRECTOMY IN NANOPHTHALMOS

Duman F.\*

*Saglik Bilimleri Üniversitesi Antalya Eğitim ve Arastirma Hastanesi ~ Antalya ~ Turkey*

#### Introduction:

Nanophthalmos is a rare genetic disease with developmental ocular malformation that is characterized by a small eye secondary to compromised growth. It is mostly associated with difficult surgery and complications. Here the surgery of pars plana partial core vitrectomy and synechiotomy of a pseudophakic nanophthalmic eye with secluzio pupilla is described. A 54-year-old woman with bilateral nanophthalmos exhibited seclusio pupilla in her right eye. During presentation, the right eye vision was hand motion, and the left eye vision was light perception. She had a history of phacoemulsification and posterior chamber intraocular lens implantation in her right eye in another clinic three years ago. Anterior segment ophthalmic examination of the right eye shows seclusio pupillae and anterior synechia, which makes us think that she had profound inflammation attacks several times after the surgery. She also had the history of multiple peripheral iridotomies, which were blocked each time. Axial lengths are 20.80 in the right eye and 20.88 in the left eye. Intraocular pressure was 12 mmHg/17 mmHg in the right and left eyes after peripheral iridotomy with through antiglaucomatous medication. The right eye anterior chamber was very shallow and had seclusio pupilla and multiple anterior synechiae, resulting in anterior bowing of the peripheral iris, obstruction of the trabecular meshwork, and acute attacks of angle closure glaucoma. Under subtenon anesthesia, a blind pars plana partial core vitrectomy is performed 3mm from the limbus temporally before penetrating into the anterior chamber. Because of the narrow palpebral fissure and small eye, it was hard to manipulate, but anterior synechiae were released after viscoelastic administration into the anterior chamber. In order to release the fibrous membrane blocking the pupillary space, we tried to obtain a gap between the pupillary margin and the membrane with the help of the tip of a needle and pour viscoelastic material beneath the iris. The membrane was so strongly attached that releasing it was only possible by pulling the iris away from the membrane bimanually; otherwise, iridodialysis would happen. After aspiration of the viscoelastic material, diluted triamcinolone is administered into the anterior chamber in order to prevent future inflammatory attacks. Then the surgery is successfully completed. The vision of the operated eye was 20/120, and the intraocular pressure was 20 mmHg after the surgery. In consecutive follow-ups, because of the posterior synechiae that were about to start, systemic steroid therapy was added to the topical treatment. In the literature, there are case reports recommending pars plana core vitrectomy in order to decrease pressure in nanophthalmos. Because of the seclusio pupilla in this case, it was impossible to visualize the tip of the ocutome during vitrectomy. It was crucial to estimate the length of the ocutome inserted and imagine the place of the tip inside the eye. In the management of this nanophthalmic eye, in order to decrease the pressure behind the iris and intraocular lens and create space between the cornea and the iris, blind pars plana partial core vitrectomy was challenging but very helpful.

## Abstract 81

### **SUPERIOR MINIMAL INTERNAL LIMITING MEMBRANE FLAP TRANSPOSITION FOR MACULAR HOLE**

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#### **Introduction:**

Purpose:

To present a case of a large macular hole (> 400 µm, according to the classification in the International Vitreomacular Traction Study) which was treated by superior inverted-ILM flap technique.

SETTING / VENUE:

Ophthalmology department of Trakya University, Turkey

METHODS:

This is case of 70 years old male with large macular hole in the right eye that presented to our medical retina department at Trakya University, Edirne.

The pre-op best corrected vision (BCVA) of his right eye was 20/200 and OCT scan showed a full-thickness macular hole with aperture size of 770 µm. We planned superior minimal inverted-ILM flap technique for macular hole closure.

RESULTS

One month post-op BCVA was 20/30 and OCT scan showed the closure of patient's macular hole.

CONCLUSIONS

The inverted-ILM flap technique was originally described to address challenging cases of large macular holes. Many studies have reported the success of the inverted flap technique in both anatomical closure of the macular hole and functional recovery. In this case report we also achieve a positive result using superior inverted ILM flap technique.

## Abstract 83

### THE SERIOUS STRAND: WHEN TO SUSPECT A BREAK IN DIABETIC PPV

Abouelsaad M.\*

*Eye specialist center ~ madinah ~ Saudi Arabia*

#### **Introduction:**

2 eyes of 2 diabetic patients with abnormal focal retinal traction that has underlying retinal break .

First patient was one eyed and had pars plana vitrectomy for vitreous hemorrhage, the other eye had previously failed surgery. Break was identified at one end of a strand connecting the disc to a focal point in the retina adjacent to a laser scar.

Second patient had a faulty management of the strand leading to break widening through pulling and dissection, the other eye later developed the same local traction yet it was managed conservatively, panretinal photo coagulation was performed around the traction at least 2 disc diameters away from it. Retinal traction diminished greatly with time.

Surgeons should carefully manage any solitary strands that connect the disc to a part of the retina that is adjacent to a laser scar as focal traction points to or predicts the occurrence of a retinal break.

So, Dissection of such strands should start from the end at the disc not the other end at the retina, causing minimal traction and no pull, shaving till close to the retinal end .

## Abstract 89

### "UNTANGLING THE TANGLED RETINA - MY WAY "

Gandhi R.\*

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#### **Introduction:**

Retinal detachment associated with complications like choroidal detachment ,hypotony ,Giant retinal tear,PVR etc usually have poor surgical outcomes.The golden standard procedure of choice in such complicated RDs giving steroids to resolve hypotony and then Scleral buckling combined with vitrectomy with intra-operative perfluoro-carbon liquids (PFCL) and silicone oil tamponade.However sometimes waiting for hypotony to resolve before operating may cause delay which may lead to PVR and in turn increase the chances of failure. This Video demonstrates management of such complicated cases in two stages , 1st stage use of short term tamponade with PFCL , 2nd stage PFCL Silicone Oil exchange.This technique has shown promising results for the treatment of chronic and complicated RRD

## Abstract 94

### PHACOVITRECTOMY VS LENS SPARING VITRECTOMY. A CLOSER LOOK!!

Gergess M.\*

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#### **Introduction:**

Cataract formation and progression are inevitable sequelae of pars plana vitrectomy (PPV), and the vast majority of patients who undergo PPV will require subsequent cataract surgery. Postvitrectomy cataract development may also blunt visual gains achieved by initial successful retinal surgery. All of these factors can result in an unhappy patient.

#### **Materials and methods:**

All phakic patients above 50 years old were subjected to combined surgery whatever the posterior segment pathology was even if the crystalline lens apparently looked clear with certain important considerations that was taken at various steps of the perioperative process. Starting from calculation of IOL power and selection of hydrophobic IOL with large optic diameter, fashionable rhexis to be a little smaller in size to avoid jumping during air fluid exchange , Minimize iris manipulation to maintain dilation for the vitrectomy portion, creation of retroendoillumination with chandelier was performed in case of absent red reflex from dens cataract or presence of dens vitreous hemorrhage. Small posterior capsulotomy with vitreous cutter at the end of the case to prevent future opacification when gas was the tamponading agent.

Suturing the scleral wound in some cases were done to avoid postoperative hypotony in some leaky wound.

Lens sparing vitrectomy was performed in phakic patients below 50years old with clear lens with respect of back surface of crystalline lens during vitreous base shaving to avoid iatrogenic lens injury and cataract formation

#### **Results:**

Most cases of combined surgery were quiet , no significant reaction in anterior chamber on 1st post op follow up.

Some cases had reaction ranging from mild iritis + cell to fibrin reaction and all are manageable within 1 week with frequent steroid

No significant difference in post operative reaction between combined surgery and lens sparing vitrectomy even in diabetic cases

Some cases had IOL capture and repositioning was performed immediately

#### **Conclusions:**

Although cataract extraction at the time of vitrectomy is not always indicated, it is a good option to offer patients in certain situations, especially if the cataract is already quite advanced.

While some unique challenges exist in terms of the planning and execution of simultaneous cataract-



vitreoretinal surgery, these challenges can generally be overcome with appropriate modifications. With the potential for improved postoperative vision and the elimination of a subsequent surgery, combined surgery is worth considering for select patients affected by retinal pathology.

### **Sources:**

#### References

- de Bustros S, Thompson JT, Michels RG, et al. Nuclear sclerosis after vitrectomy for idiopathic epiretinal membranes. *Am J Ophthalmol.* 1988;15:105(2):160-164.
- Hsuan JD, Brown NA, Bron AJ, Patel CK, Rosen PH. Posterior subcapsular and nuclear cataract after vitrectomy. *J Cataract Refract Surg.* 2001;27(3):443-444.
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- Blankenship GW, Machemer R. Long-term diabetic vitrectomy results. Report of 10 year follow-up. *Ophthalmology.* 1985;92(4):503-506.
- Cherfan GM, Michels RG, de Bustros S, et al. Nuclear sclerotic cataract after vitrectomy for idiopathic epiretinal membranes causing macular pucker. *Am J Ophthalmol.* 1991;15:111(4):434-438.

## Abstract 98

### UNIQUE STEPS IN THE PRIMARY SURGERY FOR DIABETIC VITRECTOMY TO PREVENT RECURRENCES

Guha J.S.\*

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#### **Introduction:**

There has been tremendous advance in the surgical treatment of proliferative diabetic retinopathy. In spite of this there is a significant percentage of recurrent epiretinal membrane, hemorrhage, retinal detachment.

#### **Materials and methods:**

certain unique steps in the primary surgery to prevent recurrences have been shown via video like ERM/ILM peeling, control of bleeding, prevention of iatrogenic breaks. Unique bimanual methods have also been shown to tackle the recurrence once it occurs

#### **Results:**

By applying the above methods, it has been shown that the rate of recurrence of ERMs, bleed, iatrogenic breaks have drastically reduced in incidence.

#### **Conclusions:**

In spite of advances in vitreoretinal surgery in PDR in the past decade there is a high rate of recurrence. Hence, steps should be taken in the primary surgery itself to prevent recurrences and have a high success rate

## Abstract 103

### ERM ILM COMPLEX: TO PEEL OR SPARE THE FOVEA IN FTMH AND LAMELLAR HOLES

El Manhaly M.\*

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#### **Introduction:**

The presentation shows the evidence of how to deal with associated epimacular membranes in cases of FTMH and lamellar holes, through short videos of cases involving ERM ILM complex, and is it better to peel the whole ILM or to spare the fovea and whether to remove any Epimacular membranes associated with FTMH or some could be trimmed to avoid hole distortion as peeling LHEP and how it is attached to the middle retinal layers leading to cyst deroofting on removal of the membranes. These videos are supported with literature evidence based meta-analysis and systematic reviews explaining the pros and cons of each of the options regarding complete ILM peel in cases of ERM vs sparing the ILM vs fovea sparing. Also it shows some cases with irregular ILM stains despite no clinical or OCT ERM presence and the outcome of leaving these flaps.

#### **Materials and methods:**

Cases with different types of ERM ( primary or secondary) associating complete or lamellar hole underwent pars plana vitrectomy, ERM peel with or without ILM peel and gas tamponade. Evaluating the success of hole closure and minimizing iatrogenic macular trauma.

#### **Results:**

Efficient peeling of ERM and ILM in macular holes offers good outcome as proved by evidence, but leaving some epimacular prolidferations may offer better results than complete peeling.

#### **Conclusions:**

Most of associating epimacular membranes must be completely peeled, however some should not be completely peeled as LHEP to minimize iatrogenic macular trauma in cases of FTMH and lamellar holes. Fovea sparing is a conservative option with good outcome and less postoperative complications.

## Abstract 116

### NOT FOR THE FAINT HEARTED

Kelkar A.\*, Dutta S., Bolisetty M., Jain H.

*NATIONAL INSTITUTE OF OPHTHALMOLOGY ~ PUNE ~ India*

#### **Introduction:**

As a vitreoretinal surgeon, we encounter a variety of both common and uncommon complications and unique situations during surgical procedures. The series of encounters here reflects the recollections of a vitreoretinal surgeon involving macular surgeries. With each incident, we gain insights into effective management and preventive measures for similar occurrences.

## Abstract 122

### AFFORDABLE AND PORTABLE SMARTPHONE BASED ROP SCREENING DEVICE WITH TELEMEDICINE PLATFORM

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#### Introduction:

##### PURPOSE:

Currently available contact ROP Screening devices are very expensive, making it less accessible for majority of practitioners. The development of C3 Fundus is to provide portable, affordable ROP screening device for clinics and resource limited areas through a robust Telemedicine software platform where the Ophthalmologist will be able to give an almost real time diagnosis for early intervention and immediate action

##### METHOD:

C3 FundusCam has a specially designed unique curvature that rests on the cheek of the baby giving stability to capture high quality images and videos. The Telemedicine software allows you to add patient information, ROP risk factors required for diagnosis. The software has a multiple login feature which allows the specialist to look at the images and data captured by the user conducting the screening at a different location. Once the data is captured the user can select, crop, rotate the images as desired. The user will be able to generate a report containing necessary information which can be share with the Ophthalmologist/Hospital.

##### RESULTS:

The result is high quality images comparable to contact ROP screening devices. The report can be accessed through a computer/tablet/smartphone. Ophthalmologist's diagnosis will be reflected onto the user's device. As a result, the patient can be redirected to a higher centre for the treatment. The digital report can be printed out, stored for follow ups and patient education.

##### CONCLUSION:

In conclusion we can say that the C3 FundusCam can prove to be an extremely cost-effective device for conducting ROP screening comparable to currently available contact ROP screening devices.

## Abstract 133

### **CLOSED FUNNEL RRD+SUBRETINAL-STRANDS (TRY TO MAKE THE HARD POSSIBLE!!)**

Zenbil F.\*

*Tripoli Eye Hospital-Masarra Clinic ~ Tripoli ~ Libyan Arab Jamahiriya*

#### **Introduction:**

The long standing chronic retinal detachment can be complicated by pre-retinal and subretinal PVR and become closed funnel.

#### **Materials and methods:**

PPV, ILM Peeling, 360 circumferential retinectomy, subretinal strand removal, 360 barrage laser retinopexy under PFCL + Silicon oil direct exchange.

#### **Results:**

Flat retina in the post operative follow-up + visual recovery.

#### **Conclusions:**

Retinectomy is necessary in the cases of closed funnel RRD complicated by subretinal-strands to relax the shortened retina, removal of subretinal PVR membranes and help in the retinal flattening.

ILM Peeling is also necessary for relaxation of retinal surface and decrease the chance of PVR recurrence.

## Abstract 145

### STAGE 5 B,C ROP IN ELDERLY CHILDREN: DO YOU DISSECT FROM INSIDE OUT OR FROM OUTSIDE IN ??

Othman I.S.\*

*Ophthalmology Department, Cairo University ~ Cairo ~ Egypt*

#### **Introduction:**

Stage 5 ROP is a real challenge to pediatric retina surgeons. Challenges in dissection of epiretinal membranes render the success dismal.

#### **Materials and methods:**

In 10 patients with 5b and 5c ROP and a mean age of 3 years (range 1-6 years), careful examination of the ciliary body region using the Retcam is carried out to identify a gap between the retrolenticular membrane and the CB. Identification of a clear zone warranted careful membrane dissection from the periphery to the center. using deep scleral indentation. Otherwise, the membrane was dealt with centripetally.

#### **Results:**

Results: in presence of a clear peripheral zone at CB, dissection could successfully remove the membrane in 6 out of 6 cases. In one case a CB detachment occurred with minimal traction on CB. In 4 out of 4 cases, the centripetal dissection was successful in removing the membranes, however a peripheral skirt could not be totally removed in 2 cases due to opacities present in the corneal periphery (stage 5c), and a peripheral break occurred in one case as well. Retina was found to be retracted away from the peripheral tractional membrane in 6 cases, allowing successful membrane dissection. Complete retinal flattening could be achieved in 4 cases, and partial retinal repositioning in one more case. Ambulatory vision could be appreciated in these 5 cases

#### **Conclusions:**

Conclusion: Careful observation of the nature of the retrolenticular membrane is important to identify and optimally manage such complicated cases. The retcam has a definite role in examining the very periphery of the retina. We can help.

## Abstract 151

### **TWISTED YAMANE IOL IN THE VITREOUS: A SURGICAL DILEMMA.**

Othman I.S.\*

*Ophthalmology Department Cairo University ~ Cairo, Egypt ~ Egypt*

#### **Introduction:**

Introduction: A 50 year-old male presented with fluctuating vision. A year ago he had a complicated cataract surgery with Yamane insertion technique in a loss of capsular support. The IOL twisted over itself 360 degree in the anterior vitreous and showed mobility.

#### **Materials and methods:**

Methods: Removal was challenging and replacement with a posterior placed iris claw lens. Surgery was associated with anterior vitrectomy.

#### **Results:**

Results: Vision recovered to 6/24 due to associated macular pathology.

#### **Conclusions:**

Conclusion: The stability of IOL fixation by Yamane technique depends largely on the prolene haptic of the IOL which is not always guaranteed.



## Abstract 153

### BILATERAL FUNGAL ENDOPHTHALMITIS IN A 55 YEAR-OLD MALE

Othman I.S.\*

*Ophthalmology department, Ciaro University ~ Cairo ~ Egypt*

#### **Introduction:**

Introduction: A 55 year-old male with an indwelling urinary catheter for 3 weeks presented with a sudden diminution of vision in both eyes.

#### **Materials and methods:**

Material and Methods: Ocular examination revealed visual acuity of 6/60 OU, flare and cells in the anterior chamber and bilateral clumps in the vitreous and inferior retina.

#### **Results:**

Results: A prompt diagnosis of fungal endophthalmitis was made on clinical ground, and intravitreal injection of voriconazole was immediately performed. The catheter was removed and systemic anti-fungal therapy initiated. Postoperative follow up showed decrease in the vitreous clumps with epimacular membrane formation necessitating vitrectomy OU. Final visual acuity was 6/12 OD and 6/18 OS.

#### **Conclusions:**

Conclusion: Prompt clinical diagnosis of fungal endophthalmitis and immediate intravitreal injection of antifungal therapy saves the eye and vision.

## Abstract 157

### MANAGEMENT OF POSTERIOR COMPLICATIONS FOLLOWING A COMPLICATED CATARACT SURGERY

Bouassida B.\*, Bouassida M.

*Clinique ophtalmologique de Tunis ~ Tunis ~ Tunisia*

#### Introduction:

We use three videos to demonstrate the surgical features of posterior complications after anterior segment surgery

#### Materials and methods:

Three surgical videos illustrating different ways of managing posterior complications of anterior segment surgery: The first video shows the management of a dislocated IOL in the vitreous associated with retinal detachment in a 67-year-old patient who underwent cataract surgery a few months ago. The second video shows the management of a dropped capsular tension ring in the vitreous associated with retinal detachment and choroidal detachment in a 70-year-old patient who underwent complicated cataract surgery a few weeks ago. The third video shows the management of a dislocated IOL in the vitreous with total retinal detachment in a 68-year-old patient who underwent cataract surgery a few months ago with capsular rupture. We describe the operative course of these different surgeries, emphasising the improvisation involved in each case.

#### Results:

All three procedures were performed under local anaesthesia.

In the first patient, a 3-port vitrectomy was performed. The dropped IOL was removed in the anterior chamber using endo-ocular forceps. It was then cut in half and removed through a corneal incision that was closed with 10.0 monofilament. A fluid-air exchange was then performed, followed by an endolaser around the tear and then an air-silicone exchange.

In the second patient, a 3-port vitrectomy was performed and the capsular tension ring was removed in the anterior chamber using endo-ocular forceps. It was then removed through an existing corneal incision. The choroidal detachment was punctured. A fluid-air exchange was then performed, followed by an endolaser around the tear and then an air-silicone exchange.

In the third patient, a 2.2 mm corneal incision was made. A bi-manual lavage of the anterior chamber was performed, followed by a 3-port vitrectomy. The dropped IOL was removed using endo-ocular forceps and replaced in the ciliary sulcus. A fluid-air exchange was then performed, followed by an endolaser around the tear and then an air-silicone exchange.

#### Conclusions:

The management of posterior complications in anterior segment surgery depends on the surgeon's experience and improvisation in each case.

## Abstract 158

### A MODIFIED APPROACH OF YAMANE TECHNIQUE IN POSTERIOR INTRAOCULAR LENS DISLOCATION

Iannetti L.\*, Di Martino V., Speranzini A., Romaniello A.

*Department of Ophthalmology - Sapienza University of Rome, Policlinico Umberto I ~ Rome ~ Italy*

#### Introduction:

**INTRODUCTION:** To report an alternative management of posterior intraocular lens (IOL) dislocation with a modified approach of Yamane technique.

**MATERIAL AND METHODS:** a 56 years-old man with a previous retinal detachment in left eye treated 40 years earlier with scleral buckling and cataract surgery 4 years before with implantation of a three-piece IOL (Alcon MN60MA +5D), with Polymethylmethacrylate (PMMA) loops, presented with posterior IOL-capsular bag dislocation in vitreous cavity (VC). Pre-operative Best Corrected Visual Acuity (BCVA) was 20/250 Snellen Equivalent.

**RESULTS:** 25G-Pars Plana Vitrectomy was performed using Alcon CONSTELLATION Vision System combined with Alcon NGENUITY 3D and Leica RUV800. Chandelier was used to ensure adequate posterior lighting and to permit bimanual maneuvers. Anterior vitrectomy, removal of the capsular bag, central and peripheral vitrectomy were performed sequentially; perfluorocarbon liquid (PFCL) was injected to protect the posterior pole and to move the IOL forward, permitting a better IOL handling in a larger space. After measuring the distance of 2.5 mm from the sclero-corneal limbus at 3 o'clock, a PRC-300131 30Gx13mm ultra-thin-walled needle was folded to 70° and then inserted into the VC performing a transconjunctival scleral tunnel 2.5 mm long. By means RUV display system, working directly in the VC, and not in the retroirideal space as usually described in the standard Yamane technique, the first PMMA loop of the IOL was taken with maxgrip forceps and gently carried inside the lumen of the thin-walled needle; then the loop was extracted from the sclera, and its terminal end was melted with low-temperature cautery to create a bulb. Finally the haptic was prolapsed through the conjunctiva and forced into the scleral tunnel. The same procedure was repeated at 9 o'clock position. PFCL was then removed from the VC. Good IOL centering was checked, chandelier and trocars were removed and the surgery was concluded. The patient was examined 1 day, 7 days, 1 months and 3 months after surgery with a regular course and no complication. The final BCVA was 20/40 Snellen Equivalent.

**CONCLUSION** Modified Yamane technique with a posterior approach in VC, especially in selected cases of dislocated IOL with PMMA loops, allows to better handle the IOL and the loops insertion, stressing much less PMMA loops, less indicated than Polyvinylidene fluoride loops in classic Yamane technique, reducing the risk of its distortion or breakage.

## Abstract 159

### DUEL WITH SUB-RETINAL CYSTICERCUS

Raizada K.\*

*Dr. Raizada Eye Centre ~ Bareilly ~ India*

#### **Introduction:**

This video highlights the management of sub-retinal cysticercus.

The proper technique to bring the sub-retinal cyst into the vitreous cavity and its clearance from the vitreous cavity has been shown in this video.

The video also highlights the pathogenesis of this entity, its clinical progression, proper diagnosis and effective management.

This video also shows the track marks created by possible migration of larva in the sub-retinal space leaving tracking on the retina, which probably are the cause of impaired physiological function of the retina.

## Abstract 166

### TINY EYES, BIG CHALLENGES: AN UNUSUAL CASE OF BILATERAL RD IN AN INFANT

Ozdemir Zeydanli E.\*<sup>[1]</sup>, Ozdek S.<sup>[2]</sup>

<sup>[1]</sup>Ankara Retina Clinic ~ Ankara ~ Turkey, <sup>[2]</sup>Gazi University ~ Ankara ~ Turkey

#### Introduction:

**Purpose:** To present the diagnostic and surgical challenges of managing bilateral high myopic macular hole (MH) related retinal detachment (RD) in an infant with Knobloch syndrome, and surgical techniques for addressing these rare cases.

**Method:** Video presentation.

**Case:** A 3-month-old girl presented with bilateral shallow retinal detachment without apparent retinal breaks. Fluorescein angiography showed no signs of inflammation. Intraoperatively, a hidden macular hole (MH) obscured by an operculum was discovered. An amniotic membrane graft was employed to seal the MH in one eye and a tenon's capsule graft in the other. The retina remained attached 6 months after silicone oil removal, with the baby demonstrating fix-and-follow of close objects in both eyes. Genetic analysis confirmed COL18A1 mutation consistent with Knobloch syndrome.

**Conclusion:** Knobloch syndrome is a rare collagenopathy characterized by early-onset high myopia, vitreoretinal and macular degeneration, and occipital skull defects, with encephalocele being the most common. Myopic MH-RD and a possible Knobloch syndrome should be kept in mind in pediatric patients with myopic fundus and shallow RD. The flap-shaped configuration of the MH may hinder its visibility during clinical examinations. Adjunctive materials such as tenon or amniotic membrane emerge as valuable tools to seal MH in these cases where ILM staining is often poor, if not impossible.

## Abstract 167

### TENON'S CAPSULE: A NOVEL APPROACH TO SEALING COMPLEX VITREORETINAL PATHOLOGIES

Ozdek S.<sup>[1]</sup>, Ozdemir Zeydanli E.<sup>[2]</sup>, Barcin E.<sup>[1]</sup>

<sup>[1]</sup>Gazi university ~ Ankara ~ Turkey, <sup>[2]</sup>Ankara Retina Clinic ~ Ankara ~ Turkey

#### Introduction:

In the realm of vitreoretinal surgery, transplantation of sealing materials such as ILM, capsular tissue, and amniotic membrane has been gaining popularity for the repair of complex macular holes or posterior tears where conventional methods prove inadequate. Among these innovative solutions, Tenon's capsule might be a promising and an accessible option for addressing complex vitreoretinal pathologies.

This video presentation showcases the successful application of Tenon's capsule in two challenging scenarios: the repair of a pediatric myopic macular hole-related retinal detachment in two cases and the treatment of morning glory syndrome in one case. The use of Tenon's capsule, distinguished by its ready availability and adaptability, demonstrates significant potential in resolving cases deemed otherwise intractable.

## Abstract 170

### OPTIC NERVE PIT MACULOPATHY +ERM .

Zenbil F.\*

*Tripoli Eye Hospital-Masarra Clinic ~ Tripoli ~ Libyan Arab Jamahiriya*

#### **Introduction:**

Optic Nerve Pit Maculopathy is congenital anomaly in optic nerve can cause recurrent and persistent, chronic visual blurring due to SRF- Foveoschisis .

#### **Materials and methods:**

PPV,PVD induction, large single sheath of ILM flap to use it as stuffing into the optic pit under PFCL ,FAX-PFCL exchange +SF6 20 %Gas .

#### **Results:**

Gradual improvement of the visual acuity and restoration of macular anatomy in the post operative follow-up.

#### **Conclusions:**

In Optic nerve pit maculopathy .

PPV ,Single sheath large ILM flap can be very useful to use as plug to be inserted in the Optic pit . The visual and anatomical improvement (absorption of SRF ) can take long time -couple of months after the surgery.

#### **Sources:**

Ok

MISCELLANEOUS

## Abstract 178

### CONQUERING THE CHOROIDALS

Borse N.\*, Mittal S.

*Insight Eye Clinic ~ Mumbai ~ India*

#### **Introduction:**

In vitreoretinal surgery , choroidal detachments always poses a serious challenge . The presence choroidal detachment can be due to various different reasons.

It is usually either serous or hemorrhagic. This video shows various techniques and modalities of managing the choroidal detachment. The surgical techniques include a simple needle / trocar based drainage to a novel technique using a 26 guage intracath.



## Abstract 191

### PROLIFERATIVE VITREORETINOPATHY-ASSOCIATED RETINAL DETACHMENT: HOW DO I DO IT?

Abroug N.\*

*Department of Ophthalmology, Fattouma Bourguiba University Hospital of Monastir, Faculty of medicine, University of Monastir, Monastir, Tunisia ~ Monastir ~ Tunisia*

#### **Introduction:**

Proliferative vitreoretinopathy (PVR) is the most common complication of retinal detachment (RD). Although anatomic repair is possible in most cases, the management can be challenging.

#### **Materials and methods:**

A clinical case-based presentation. Surgical approach to management of PVR-associated RD is described.

#### **Results:**

A combined buckle-vitreectomy was performed. An inferior segmental sponge was used. Vitreectomy with relief of tractions from epiretinal membranes and subretinal PVR, extended ILM peeling, inferior retinectomy under PFCL, 360° endolaser, and silicone oil tamponade were performed. In two patients presenting with recurrent inferior RRD under silicone oil with PVR and macular pucker. A 2 port approach under oil was performed as we decided to keep the oil in the eye. Epiretinal membrane peeling, retinectomy, and endolaser were performed under oil. Postoperatively, the retina was flat in all cases.

#### **Conclusions:**

Management of PVR-associated RD is challenging. A combined buckle-vitreectomy is an effective procedure for managing these patients.

## Abstract 193

### MANAGEMENT OF DIABETIC TRACTIONAL RETINAL DETACHMENT : MY WAY

Abroug N.\*

*Department of Ophthalmology, Fattouma Bourguiba University Hospital of Monastir, Faculty of medicine, University of Monastir, Monastir, Tunisia ~ Monastir ~ Tunisia*

#### **Introduction:**

Diabetic retinopathy is the leading cause of blindness in people of reproductive age. Retinal detachment is a serious and common complication in patients with diabetic retinopathy and must be treated as soon as possible to try to avoid blindness.

#### **Materials and methods:**

A clinical case-based presentation.

#### **Results:**

Surgical approach to manage fibrovascular proliferation is described. Unimanual vitrectomy was used in all cases. After truncation of the vitreous cone, we proceed to find an adequate plane to dissect fibrovascular membranes using an in-out or out-in approach. Vitrectomy probe is used to segment and then delaminate membranes. The probe is insinuated into tight spaces to lift and cut the membrane. We alternate between conformal and foldback delamination to eliminate all tractions and membranes.

#### **Conclusions:**

Unimanual vitrectomy is effective in the management of severe tractional retinal detachment.

## Abstract 210

### SUBRETINAL PNEUMATIC DISPLACEMENT FOR LARGE SUBMACULAR BLEEDS

Dogra M.\*

*Advanced Eye Centre, Postgraduate Institute of Medical Education and Research ~ Chandigarh ~ India*

#### **Introduction:**

To highlight the surgical technique and outcomes of vitrectomy with subretinal tissue plasminogen activator (tPA)+air injection and partial gas tamponade with propped-up positioning in patients with large to massive sized submacular haemorrhage (SMH). 3 patients, each with big (4 DD), bigger (8DD) or biggest (16DD) SMH underwent 25gauge vitrectomy with subretinal tPA ( 0.3ml of 12.5micrograms/0.1ml) and air (0.3-0.4ml) injection followed by partial sulphur hexafluoride (18%) gas tamponade and propped-up positioning. 2 patients had SMH secondary to a ruptured arterial macroaneurysm (RAM) while the third developed it due to polypoidal choroidal vasculopathy (PCV). All patients had complete displacement of SMH at three months follow-up with improvement in visual acuity. None of the patients had any intraoperative or early postoperative complications. Vitrectomy with submacular pneumatic displacement is an efficient technique to manage patients with large to massive SMHs.

## Abstract 211

### ILM PEELING ON DETACHED RETINA: TIPS AND TRICKS

Abroug N.\*

*Department of Ophthalmology, Fattouma Bourguiba University Hospital of Monastir, Faculty of medicine, University of Monastir, Monastir, Tunisia ~ Monastir ~ Tunisia*

#### **Introduction:**

Management of retinal detachment with PVR includes extended ILM peeling to prevent recurrent detachment.

#### **Materials and methods:**

A clinical case-based presentation. Tips and tricks to peel ILM in different clinical situations are described.

#### **Results:**

Membrane peeling on a detached retina is challenging. This is related to the perpetual change of focus due to the mobile retina and the absence of counter-action. To overcome these difficulties, stain the ILM, and begin your grasp near the optic disc toward the temporal retina, then inject PFCL to reattach the retina and regrasp your flap. We can restrain as much as needed, under PFCL using a soft tip cannula to enhance contrast. In highly myopic eyes, peeling ILM without PFCL in order to reach the retina.

#### **Conclusions:**

ILM peeling on a detached retina is challenging requiring careful grasping to avoid retinal break.

## Abstract 225

### TRUMATIC GRT-FOLDED RETINA+MACULAR HOLE

Zenbil F.\*

*Tripoli Eye Hospital-Masarra Clinic ~ Tripoli ~ Libyan Arab Jamahiriya*

#### **Introduction:**

MH can be associates with retinal detachment in ocular truma .

#### **Materials and methods:**

Phaco,IOL,PPV,ILM inverted flaps,360 laser retinopexy +Silicon oil.

#### **Results:**

Good Visual recovery +completely flattened retina and closed macular hole.

#### **Conclusions:**

In Cases of Retinal Detachment , Vitrectomy and /or Scleral Buckle is mandatory to safe the eye, regain the vision and prevent permanent blindness. Multilayered inverted ILM flaps maximize the successful rate for MH closer and visual outcome.

## Abstract 228

### **BIMANUAL SURGERY FOR DIABETIC TRACTIONAL RETINAL DETACHMENT. IS IT USEFUL?**

Gonzalez--Cortes J.H.\*, Garza--Chavarria J.A., Gonzalez--Cantu J.E.

*University Hospital. Faculty of Medicine. UANL ~ Monterrey ~ Mexico*

#### **Introduction:**

Diabetic Tractional Retinal Detachment (DTRD) represents an advanced phase of Diabetic Retinopathy. It occurs when contracting forces in the vitreous and neovascular tissue induce separation of the neurosensory retina. The aim of this presentation is to present the ABC in DTRD and to point out the cases in which bimanual surgery is a better option in relation to membrane peeling.

#### **Materials and methods:**

In general, surgical treatment of DTRD in sequential order consists of clearing the vitreous opacities, removing the posterior hyaloids and release the TRD by dissecting the vitreoretinal membranes (VRM). Through the presentation of surgical cases, the usefulness of bimanual surgery is demonstrated.

#### **Results:**

The technique of bimanual VRM dissection showed usefulness in cases of combined tractional/rhegmatogenous RD and in cases where the epicenters of the VRM are extremely attached to the retina.

#### **Conclusions:**

Most diabetic VRM can be removed with a peeling technique. Consider the bimanual technique in cases of floating retina or where adhesions of VRM do not allow finding a dissection plane for delamination.

## Abstract 231

### **PLUCKING THE BLACK MUSHROOM BY ITS ROOTS: ENDORESECTION OF CHOROIDAL MELANOMAS**

Dogra M.\*

*Advanced Eye Centre, Postgraduate Institute of Medical Education and Research ~ Chandigarh ~ India*

#### **Introduction:**

Choroidal melanoma (CM) is the commonest primary intraocular malignancy in adults. Management includes plaque brachytherapy (Ru-106, I-125), proton beam therapy (PBT), transpupillary thermotherapy and enucleation. Rarely, transscleral resection (for broad based anterior tumors) and vitrectomy with endoresection (for high posterior tumors) is indicated. Non-availability of PBT and I-125 plaques in our country makes management of posterior CMs with height >8mm extremely challenging. We show 2 cases of CM with height >8mm who were successfully managed with 3-port 25G pars plana vitrectomy, posterior hyaloid removal, endoresection of the tumor followed by endolaser/cryotherapy and silicone oil tamponade. Preoperative planning, anaesthesia and crucial intraoperative steps of the procedure are highlighted in this video.

## Abstract 243

### IL GATTOPARDO 4 - ARTIFICIAL IRIS IN POST-TRAUMATIC MYDRIASIS AND APHAKIA (THE LEOPARD'S FOURTH EYE)

Forlini M.\*

*San Marino State Hospital ~ San Marino ~ San Marino*

#### **Introduction:**

The patient in this video presents post-traumatic mydriasis with subluxated traumatic cataract. Due to the severe zonulodialysis, capsular bag was removed after phaco, since it was not suitable for IOL implantation. Then, an Artificial Iris prosthesis with IOL included was implanted with scleral fixation. After surgery, the patient presents excellent anatomic result with good functional recovery.



## Abstract 251

### "CONQUERORS PRIDE - INSIGHTS INTO VITRECTOMY FOR ROP "

Gandhi R.\*

*ANUPAM EYE HOSPITAL & LASER CENTRE ~ AKLUJ ~ India*

#### **Introduction:**

RETINOPATHY OF PREMATUREITY IS ONE OF THE LEADING CAUSE OF BLINDNESS IN CHILDREN. ALTHOUGH OPERATING ON A ROP HAS LOT OF CHALLENGES AND DIFFICULTIES ,WITH NEWER TECHNOLOGIES AND SMALLER GAUGES PERFORMING SURGERIES ON SUCH CASES HAVE BECOME EASIER THAN BEFORE. THIS VIDEO DEMONSTRATES THE SURGICAL DIFFICULTIES A SURGEON FACES IN OPERATING A ROP CASE AND MANAGING THEM & GENERAL CHALLENGES LIKE FROM PARENT COUNSELLING TO ACCEPTANCE.

## Abstract 252

### TRAUMATIC MACULAR TEAR

Zampogianni A.\*, Chatzilaou G., Gotzaridis S.

*My Retina Athens Eye Center ~ Athens ~ Greece*

#### **Introduction:**

**Purpose:** Presentation of an innovative surgical technique in a case with a traumatic retinal tear in the macula.

**Case Presentation:** The case concerns a 17-year-old boy with a free individual history, who came to our clinic due to a blunt injury to the left eye a week ago. On ophthalmological examination, the best corrected visual acuity (BCVA) was counting fingers, and intraocular pressure was 29 mmHg. Slit-lamp examination revealed an anterior chamber reaction ++, while the pupil was in mild mydriasis. During fundoscopy, a large retinal tear with folding edges in the macula was seen with accompanying choroidal rupture. An optical coherence tomography (OCT) examination was performed which showed an amount of subretinal fluid adjacent to the tear. We decided to have surgery and treat the tear as a large-diameter full-thickness macular hole. The steps of the surgery were 3 port 25G pars plana vitrectomy, posterior vitreous detachment, extensive removal of the internal limiting membrane through staining, and then the creation of an inverted flap. Endolaser photocoagulation was then applied to the upper and lower edges of the tear, fluid-to-air exchange and injection of SF6 gas were performed.

**Results:** Five months after surgery there was a convergence of the edges of the retinal tear, BCVA by counting finger improved to 0.2 LogMAR, with no postoperative complications. However, seven months after the operation, choroidal neovascularization appeared in the OCT angiography at the upper and lower edges of the tear, as a subsequent mechanism of the choroidal injury, without causing a reduction in visual acuity.

**Conclusion:** Presentation of an innovative technique in case of retinal tear in the macula, which had excellent results in bringing together the edges of the tear, dramatically improving visual acuity without significant postoperative complications.

## Abstract 254

### FLUOVITRECTOMY

Zbiba W.\*, Dlensi A., Ben Jemaa Y., Kharrat M.

*Mohamed Taher Maamouri university hospital ~ Nabeul ~ Tunisia*

#### **Introduction:**

Chromovitrectomy is the use of dyes for enhancing the visualization of transparent structures during vitrectomy leading to more precise surgical maneuvers and improved patient outcomes.

Fluorescein is one of the dyes used during vitrectomy. Its fluorescent properties offer potential benefits in chromovitrectomy by highlighting specific structures like vitreous and membranes due to its highly hydrophilic nature. In fact, Fluorescein is easily absorbed by the vitreous given its high water content. This coloration facilitates the surgery by the visualization of cortical posterior vitreous and allows better postoperative results.

Fluorescein also boasts advantages such as low toxicity and cost-effectiveness. It is FDA-approved and can be applied at different concentrations depending on the desired degree of staining, given its safety and quick elimination.

During vitrectomy, Fluorescein finds application in various cases including rhegmatogenous retinal detachment, macular hole, diabetic traction, etc....

In our video, we detail our FLUOvitrectomy technique in a case of rhegmatogenous retinal detachment.

## Abstract 257

### "SHADES OF VITREOUS "

Gandhi R.\*

*ANUPAM EYE HOSPITAL & LASER CENTRE ~ AKLUJ ~ India*

#### **Introduction:**

Aim is To demonstrate Different cases of Diabetic Vitreo Retinal surgery where Vitreous removal is main objective and can be very deceptive where you expect it is easy but can become nightmare while performing vitrectomy. Vitreous removal has a over all impact on the surgical outcome and can become challenging in cases where you might have considered easy. During performing Vitrectomy surgery complication like Retinal touch or Break can happen which might complicate the outcome. Instrument failure like Cutter blockage or failure can occur in cases of thick vitreous. Any Vitrectomy surgery it is important for thorough preoperative evaluation and this video demonstrates how Vitreous shade can give you a fair idea & anticipation of how vitreous might behave during surgery so that surgeon is well prepared to deal with difficulties as it has a greater role on the surgical outcome and surgeons confidence .

## Abstract 258

### **SURGICAL TECHNIQUE FOR REMOVAL OF A MIRAGEL HYDROGEL SCLERAL EXPLANT**

**Mohamed S.\*<sup>[1]</sup>**, Fong A.H.C.<sup>[2]</sup>, Tsang C.W.<sup>[1]</sup>

<sup>[1]</sup>*Department of Ophthalmology & Visual Sciences, the Chinese University of Hong Kong ~ Hong Kong ~ Hong Kong,*

<sup>[2]</sup>*Hong Kong University/ Grantham Hospital ~ Hong Kong ~ Hong Kong*

#### **Introduction:**

##### Introduction

To present a case showing the surgical removal of a MIRAgel hydrogel scleral explant

##### Case Presentation

A 55-year-old female patient presented with increasing right eye peri-ocular pain, with a history of MIRAgel (MIRA, Waltham, MA, USA) hydrogel scleral buckle and an encircling band in right eye rhegmatogenous retinal detachment surgery done over 30 years ago. Preoperative magnetic resonance imaging (MRI) of the orbits showed a swollen MIRAgel explant in the superomedial quadrant, and she underwent surgery for removal of the MIRAgel explant under general anaesthesia. Partial excision of the encircling band and excision of dystrophic calcification surrounding the explant were also performed. The capsule around the explant was divided, and the friable MIRAgel was removed with a combination of various techniques including use of a cryoprobe and aspiration of the hydrogel with a metal suction catheter. The retina remained attached postoperatively with no loss of vision, but the patient developed progressive esotropia and underwent a second surgery for removal of the residual encircling band together with scar tissue removal, followed by a third surgery for medial rectus recession with adjustable sutures. The patient was satisfied with the cosmetic result and there was only minimal esotropia at 6 months.

##### Conclusion

Removal of the MIRAgel explant is technically difficult due to the capsule surrounding the hydrogel explant, dystrophic calcification, friable nature of the hydrogel, expanded hydrogel size and difficult exposure. Various techniques were employed to successfully remove the hydrogel explant.

## Abstract 259

### SURGERY IN ROP STAGE 5B AND 5C

Teixeira S.\*, Pires G., Mota M., Monteiro C., Vivas M., Reis Da Costa T., Barroso R., Costa E Silva F., Prieto I.

*Hospital Professor Doutor Fernando Fonseca ~ Lisboa ~ Portugal*

#### **Introduction:**

Introduction:

ROP is one of the leading causes of childhood blindness around the world. ROP Late stages can present with leukocoria with or without anterior segment changes (stage 5-B and 5-C) and surgical management of these cases is particularly demanding. Even when there is anatomical success the visual outcome is usually very limited.

Aim:

To present the feasibility and results of lensectomy and vitrectomy in 2 cases: 1 case of stage 5-B and 1 case of stage 5-C.

Results:

The retina is partially attached in both cases with preservation of visual acuity of light perception after 1,5 years of follow-up.

Conclusion:

Although anatomical and functional outcome of surgery in stage 5 are very limited, the preservation of light perception is very important in these cases. Surgical intervention may also prevent further ocular atrophy, cornea leukoma, secondary glaucoma and painful eye. We also hope to stimulate further pushing of surgical limits in this pathology.

## Abstract 266

### NOT FOR THE FAINT HEARTED

Kelkar A.\*, Dutta S., Bolisetty M., Jain H.

*National Institute of Ophthalmology ~ Pune ~ India*

#### **Introduction:**

As a vitreoretinal surgeon, we encounter a variety of both common and uncommon complications and unique situations during surgical procedures. The series of encounters here reflects the recollections of a vitreoretinal surgeon involving macular surgeries. With each incident, we gain insights into effective management and preventive measures for similar occurrences.

## Abstract 276

### HOW AND WHEN TO INDUCE PVD

El Manhaly M.\*

*iCare eye hospital ~ Alexandria ~ Egypt*

#### **Introduction:**

Posterior vitreous detachment is an important step during vitrectomy surgery. The way and timing of PVD induction may differ between different vitrectomy indications. The presentation shows when and how to initiate the PVD in different pathologies as in dropped nucleus, retinal detachment, VMT, macular holes and diabetic vitrectomies.

#### **Materials and methods:**

Patients undergoing vitrectomy surgery for different indications require modification for the way and time of PVD induction.

#### **Results:**

Changing the time and the degrees of pvd wave propagation allows better control and efficient vitreous removal with less iatrogenic breaks and surgery time.

#### **Conclusions:**

Posterior vitreous detachment timing and the method of wave propagation should be amended according to the instruction of vitrectomy



## Abstract 283

### RETINAL DETACHMENT SURGERY IN PROGRESSIVE OUTER RETINAL NECROSIS

Mohamed S.<sup>[1]</sup>, Fong A.H.C.\*<sup>[2]</sup>, Tsang C.W.<sup>[1]</sup>

<sup>[1]</sup>Department of Ophthalmology & Visual Sciences, the Chinese University of Hong Kong/ Hong Kong Eye Hospital ~ Hong Kong ~ Hong Kong, <sup>[2]</sup>Hong Kong University/ Grantham Hospital ~ Hong Kong ~ Hong Kong

#### Introduction:

##### Introduction

Progressive outer retinal necrosis (PORN) occurs in immunocompromised patients. The overwhelming majority of cases are caused by varicella zoster virus (VZV). Retinal necrosis is caused mainly by the direct intraretinal spread of the replicating virus. A hallmark feature is the lack of intraocular inflammation due to the severely immunocompromised state. The necrosis rapidly progresses to full thickness and confluence, and retinal detachment develops in more than 50% of patients. We present the surgical technique of retinal detachment (RD) repair in PORN.

##### Case Presentation

A 55-year-old man was newly diagnosed with HIV, CD4 count 48, presented with TB cervical lymphadenitis, and disseminated VZV involving skin of chest wall, right upper lid, meningitis (CSF VZV PCR +ve), bilateral lower limb weakness, as well as left eye PORN in August 2019. The right eye was uninvolved. For the left eye PORN, he was treated with intravenous high dose ganciclovir and foscarnet, and received 2 intravitreal injections of both ganciclovir and foscarnet. He progressed to retinal detachment with large posterior retinal tears on Day 20. He underwent emergency surgery with phacoemulsification with intraocular lens implantation, 23 gauge pars plana vitrectomy, 360 degree retinectomy, endolaser and 5700CS silicone oil tamponade. Postoperatively, at 5 years, aided vision was 0.2 in his left eye and the retina was flat under silicone oil with intraocular pressure of 10mmHg.

##### Conclusion

VZV-related PORN is a rare but devastating infectious retinitis in immunocompromised patients. Up to 50% of HIV patients may end up with vision of NLP at 6 months. However, as this case illustrates, prompt diagnosis, antiviral treatment and surgery if retinal detachment develops can salvage vision in some patients.

## Abstract 301

### **MEDIA CLEARING TRICKS TO HAVE GOOD SURGICAL VIEW DURING VITRECTOMY**

El Manhaly M.\*

*iCare eye hospital ~ Alexandria ~ Egypt*

#### **Introduction:**

Good surgical viewing is mandatory for every surgical practice, and its of utmost importance specially in vitrectomy. Many media opacities hinder the surgical view and some of them could hinder the good outcome of the procedure. So some tips may help in solving some situations that may lead to better success rate.

#### **Materials and methods:**

Vitrectomy cases with media opacities at different levels in the eye, and how to remove these obstacles to get better clear view during the surgery

#### **Results:**

Improving visual media and adding contrast to the surgical field, enhance our performance and elevate our surgical success rate

#### **Conclusions:**

Improving visual media and adding contrast to the surgical field, enhance our performance and elevate our surgical success rate

## Abstract 303

### DISSECTING MEMBRANES IN LIMITED POSTERIOR POLE TRDS POST ROP

Anand A.\*

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#### **Introduction:**

have been described mostly as a sequelae of AROP ± injection Anti-VEGF± PRP. Many a times these detachment which begin nasal to the disc and progress along the central vascular Arcade can cause limited Macular TRDs.

In order to restore the near normal configuration of the posterior pole Lens Sparing Vitrectomy with parial or entoto removal of the membranes is warranted. Unlike adult Macular TRDs dense and taut adhesions exist between the epiretinal membranes and the Retinal interface. Traditional ILM peeling and membrane peeling cant be employed.

Bimanual dissection uising chandelier illumination appears to give the best result. Surgical challenges include limited contrast between healthy retinal tissue and abnormal proliferation, posterior pole TRDs sitting vertically while dissecting membranes under microscope in limiting surgeons surgical dexterity, no preexisting anatomical cleft between the two tissues, no preexisting PVD at the junction of TRD and flat retina unlike diabetic TRDs and almost blind dissection and cut using scissors just atop macula.

This surgical video describes a 5 month old baby who had undergone bilateral Ranibizumab Biosimilar injection and PRP for AROP. Right eye developed a Central TRD and had to be taken up for LSV with removal of the central TRD pucker. Post operatively the fovea could be appreciated with near normal anatomical configuration.

Points to Ponder:

1. Surgical challenges associated with posterior pole TRDs
2. Aggressive versus limited dissection
3. Nasal TRDs: wait and watch versus and when to surgically intervene
4. Role of adjuncts like viscoelastics

## Abstract 304

### SCLERAL FIXATION IOL TIPS AND TRICKS

Ngh A.\*

*KAMC Ngh king saud bin abdulaziz for health scienece ~ Jeddah ~ Saudi Arabia*

#### **Introduction:**

scleral fixated IOL with sutures or with glue or yamani all with videos of each which mistake to avoids

#### **Materials and methods:**

videos of each with slides to show the tips for better succes

#### **Results:**

avoid mistakes to get good result

#### **Conclusions:**

secondary IOL could be challenging with long learning curve but good result in anatomical position could be achieved .

## Abstract 318

### MAN VS WILD: HELMINTHIC ZOONOSES AFFECTING THE POSTERIOR SEGMENT OF EYE

Anand A.<sup>[1]</sup>, Agarwal L.<sup>[2]</sup>

<sup>[1]</sup>REGIONAL INSTITUTE OF OPHTHALMOLOGY ~ PATNA ~ India, <sup>[2]</sup>birat eye hospita ~ BIRATNAGAR ~ Nepal

#### Introduction:

Ocular Zoonoses is more common in geographical areas with poor sanitation, poor food hygiene and close animal to man contact. Posterior segment is commonly involved in Ocular zoonoses. Helminthic parasitosis involving the posterior segment of eye can present as atypical uveitis, cyst, live worm or secondary complications like neovascular traction folds or Retinal detachments with or without associated systemic complications. Paucity of literature and no standard treatment guidelines both medical and surgical exist for most of the helminthic infections or secondary complications affecting the posterior segment of eye. A series of surgical videos a live subretinal worm, a case of intravitreal live worm with tractional fold, live intarvitreal cysticercosis with subretinal cyst, a case of subretinal cysticercosis with fresh rhegmatogenous retinal detachment and a live cysticercosis with end stage RD will help in throwing some light on this rare entity.

## Abstract 321

### VITREORETINAL SURGERY FOR RETINAL DETACHMENT ASSOCIATED WITH GIANT RETINAL TEAR USING 3-D VISUALIZATION SYSTEM

Kocak N.<sup>\*[1]</sup>, Ozturk T.<sup>[2]</sup>, Kucuk H.C.<sup>[1]</sup>

<sup>[1]</sup>Dokuz Eylul University ~ Izmir ~ Turkey, <sup>[2]</sup>Tinaztepe University ~ Izmir ~ Turkey

#### Introduction:

**Purpose:** To present the surgical video of a case with retinal detachment (RD) associated with a giant retinal tear who underwent vitrectomy surgery using a three-dimensional (3D) NGENUITY® visualization system (Alcon Laboratories, Fort Worth, TX).

**Case Report:** A 58-year-old man presented with visual loss related with RD associated with a giant retinal tear in his left eye. He had 10.5 diopters of myopia in both eyes, and vision was decreased to counting fingers in the affected eye. He underwent 25-gauge vitrectomy surgery using NGENUITY® heads-up system. While performing intervention in the retinal periphery, we used the system's chandelier illumination that allowed the scleral indentation unaided. Triamcinolone acetonide was injected to check for peripheral vitreous fibers especially around the giant retinal tear. After performing a detailed vitrectomy, retina was flattened by gently injection of perfluorocarbon liquid (PFCL) over the posterior pole. Under the PFCL, posterior flap of the retinal tear was smoothed down with the help of a diamond dusted scraper. After flattening the retina, laser burns were applied around the edges of giant tear with 360° around the peripheral retina. At the end of the surgery, direct PFCL-silicone oil exchange was performed and 25-gauge trocars were removed. At the sixth year follow-up after an uneventful silicone oil removal surgery, no postoperative complications were observed.

**Conclusion:** The 3D visualization system seems as a facilitating novelty in retinal interventions. The best advantages of using NGENUITY system in this case were ergonomics, and peripheral visualization of retina without any disruption in depth perception. Performing relatively long lasting vitreoretinal procedures under heads-up visualization systems with low illumination may decrease the risk of light toxicity during the operation.

## Abstract 322

### DIABETIC RETINOPATHY - SURGERY CHALLENGES

Pires G.\*, Teixeira S., Monteiro C.

*GRAÇA PIRES ~ Lisbon ~ Portugal*

#### **Introduction:**

Pars plana vitrectomy (PPV) is the main treatment modality for patients with severe diabetic retinopathy.

With the availability of systems for microincision, wide-angle viewing, digitally assisted visualization, and intraoperative optical coherence tomography, contemporary PPV for diabetic retinopathy has been performed on a wider range of indications than previously considered.

In this video we present challenging cases of eyes with diabetic retinopathy and the indications, surgical techniques and outcomes of vitrectomy for proliferative diabetic retinopathy and diabetic tractional retinal detachment will be addressed.

## Abstract 323

### DOUSING THE SUB-RETINAL VOLCANO OF BLOOD WITH TISSUE PLASMINOGEN ACTIVATOR

Raizada K.\*

*Dr. Raizada Eye Centre ~ Bareilly ~ India*

#### **Introduction:**

A 19-year-old male came to us with complaints of diminution of vision in the left eye for the past 4 days. He had a history of blunt trauma to LE. On examination, his BCVA in LE was HMCF PL+ve PR Accurate. Anterior Segment was unremarkable while on posterior segment evaluation, massive sub-retinal haemorrhage was seen. The thickness of Subretinal Haemorrhage was more than 1000 um on OCT. There was a macular hole evident on OCT. The patient was taken up for a vitrectomy. After Anterior and core Vitrectomy, PVD was completed. Sub-retinal Tissue Plasminogen Activator was injected using a 38 gauge cannula. Upon injection, sub-retinal haem started oozing from the macular hole. After TPA Injection, ILM Peeling (Inverted Flap Technique) was done and Fluid Air Exchange was followed by SF6 Gas Injection. Patient was advised Prone positioning. 2 weeks later, the patient recovered to 6/9 N6. Sub-retinal haemorrhage had absorbed. There was a Choroidal Rupture present juxta-foveal.



## Abstract 327

### "HUNGRY EYES" - MANAGEMENT OF LIVE SUBRETINAL CYSTICERCUS CYST AND RETINAL DETACHMENT WITH PVR

Luthra S.<sup>[1]</sup>, Das S.<sup>[1]</sup>, Parakh S.<sup>[1]</sup>, Bhatt V.<sup>[1]</sup>, Lakhlan P.<sup>[1]</sup>, Sanduja N.<sup>[2]</sup>, Borse N.<sup>[3]</sup>, Mittal S.<sup>[4]</sup>

<sup>[1]</sup>Drishti Eye Institute ~ Dehradun ~ India, <sup>[2]</sup>Viaan Eye & Retina Centre ~ Gurgaon ~ India, <sup>[3]</sup>Insight Eye Clinic ~ Mumbai ~ India, <sup>[4]</sup>Thind Eye Hospital ~ Jalandhar ~ India

#### Introduction:

To describe the surgical management of intraocular cysticercosis in the posterior segment. Intraocular parasitic infestations of the posterior segment are relatively rare. They require a comprehensive management of the systemic infection along with patient surgical management of the intraocular parasite and its complications. Intravitreal live cysticercus cyst is a devastating complication of the infection and its management is a big challenge requiring multiple interventions.

A 10 year old girl presented with OD BCVA of 1/60, large subretinal migrating cysticercus cyst with retinal detachment, subretinal scarring and PVR changes. Patient underwent encirclage, 25G Vitrectomy, extensive membrane peeling and patient delivering of intact live subretinal cyst into the vitreous cavity with soft tip cannula, followed by eating of the cyst with cutter, air fluid exchange, endolaser and silicone oil tamponade. 3 months later, patient underwent SOR with ILM peeling and gas injection. 3 months following SOR, patient had BCVA of 6/18, attached retina with flat macula, extensive scarring in the area of cyst migration and subretinal incarceration.

Intraocular cysticercus infection can be devastating for the eye. Successful surgical management of the live intravitreal cyst and associated retinal detachment with severe proliferative vitreoretinopathy (PVR) changes using silicone oil tamponade was a challenge. Extensive membrane formation required meticulous membrane peeling to achieve desirable results. With advances in technology and newer instrumentation this challenging condition can be managed efficiently with favorable visual outcome.

## Abstract 328

### REMOVAL OF A LARGE, CRESCENT-SHAPED INTRAOCULAR FOREIGN BODY HIDDEN UNDER THE RETINA

Yustiarini I.\*, Rahmaniah A.D., Prakosa A.D., Ari Widjaja S., Firmansjah M., Sasono W.

*Department of Ophthalmology, Faculty of Medicine Universitas Airlangga/ Dr. Soetomo General Academic Hospital ~ Surabaya ~ Indonesia*

#### Introduction:

##### Backgrounds

Ocular trauma is an important cause of preventable morbidity worldwide and a major cause of unilateral visual loss in developing countries. 18%–41% of open globe injuries are intra-ocular foreign bodies (IOFB) cases with a wide range of pathologies. Most IOFBs after traumatic incidents (58%–88%) were retained in the posterior segment. The majority (92%) of patients who presented with IOFBs were young men, with an average age of 29 to 38 years old. Workplace injuries are most frequently reported (54%–72%), followed by injuries at home (30%).

The management of IOFB consists of preoperative treatment, surgical considerations, and postoperative care. The timing of the procedure, the requirement for lens extraction, the method and tools used for IOFB extraction, and the use of intra-operative antibiotics are all surgical issues. Evaluation, prevention, and treatment of any complications are all included in postoperative care.

Removal of IOFBs can be done using several methods. The initial surgical method advised to remove a posterior foreign body is a pars-plana vitrectomy (PPV). Recent improvements in vitreo-retinal surgery have been proposed to enhance PPV results in the management of posterior segment IOFBs. An intra-ocular magnet or forceps can be used to remove intra-ocular foreign substances through a sclerotomy or corneal incision. It depends on their position, size, magnetic characteristics, and the condition of the lens.

This report describes a unique case of an unusually large metallic foreign body embedded in subretinal space and successfully removing it through a corneal incision.

##### Case Report

A 29-year-old man presented in the emergency department with a penetrating injury to the right eye following a reported history of a high-velocity projectile resulting from using a hydraulic machine 12 hours before admission. He complained of pain and blurry vision in the right eye.

On examination, visual acuity was limited to light perception in RE. There was a full-thickness laceration on 1/3 medial of the superior eyelid, 1 x 0.3 cm in size, extending horizontally to the nasal sub-brow area. There were sub-conjunctival hemorrhages in the 11–5 o'clock position. Beneath the location of superior eyelid laceration, there was scleral laceration, 4 mm in size, at the 2 o'clock position, around 8 mm posteriorly from the limbus. No vitreous prolapse was seen at the site of scleral laceration. The pupil was round, 3 mm in size, with positive light reflection.

A dense vitreous hemorrhage, sub-hyaloid hemorrhage, and IOFB with retinal detachment were noted on ultrasound. A computed tomography scan revealed a penetrated dense linear FB causing right bulbous deformity accompanied by vitreous hemorrhage.

The patient undergoes primary wound repair. During surgery, a conjunctival peritomy was done to explore the extent of the scleral penetrating wound. The scleral laceration was 5x3 mm in size at the superonasal area, then sutured with Vicryl 6.0. The superior eyelid wound was 7x1 mm in size at 1/3 medial, sutured with Prolene 6.0. An intravitreal antibiotic injection was administered at the end of the surgery.

The patient was scheduled for a pars plana vitrectomy and a pars plana lensectomy. Intra-operatively, vitrectomy was initiated, and vitreous hemorrhage was cleared, revealing a crescent-shaped IOFB embedded in the sub-retinal space inferotemporally with a large retinal tear. A retinal detachment was noted in the inferior quadrants. The macula also showed a retinal tear with an overlying hemorrhage. A foreign body was removed through a clear corneal incision. After subretinal drainage, laser photocoagulation was applied to the break and also at 360 degrees, followed by gas tamponade. The retina was settled; however, disc pallor and macular scars were noted, explaining no visual recovery at this stage.

#### Discussions

In the case presented, IOFB posed a unique challenge because of its large size, crescent shape, and the presence of retinal detachment with large tears in the fovea and peripheral area, which indicated a poor prognosis. The aim of the intervention was to extract the IOFB without damaging any vital structures and to avoid any late complications, such as endophthalmitis. In this case, removing the FB from the sclerotomy route would have led to more trauma in view of the length and shape of the object. Hence, we chose to remove it from the anterior approach through a clear corneal incision.

#### Conclusions

A large, unique shape IOFB was successfully removed through a corneal incision to avoid the need for a large sclerotomy and further ocular trauma.

## Abstract 337

### TREATMENT OF MASSIVE EXUDATIVE RETINAL DETACHMENT ASSOCIATED WITH DIFFUSE CHOROIDAL HEMANGIOMA

Gülpinar Ikiz G.D.\*, Özdemir Zeydanli E., Özdek S.

*Dr ~ Ankara ~ Turkey*

#### **Introduction:**

This video describes a 3.5 years old girl with bullous exudative retinal detachment in the right eye secondary to diffuse choroidal hemangioma associated with Sturge Weber Syndrome. The first step was to perform a scleral window surgery and intravitreal injection of anti-VEGF which was inadequate to resolve the retinal detachment. The second step was external drainage surgery with 2nd antiVEGF injection at 5th postoperative month. Retina was attached at the first weeks but RD recurred at the 3rd month postoperatively. While planning to organize an external beam radiotherapy, she came back with a dramatic painful red eye due to acute angle closure glaucoma secondary to pupillary block as a consequence of extensive total RD adhering to the back of the lens at 5th postoperative month. This stimulated us to try to destroy the hemangioma with panretinal argon laser photocoagulation after attaching the retina with external/internal drainage, vitrectomy with silicone oil tamponade which successfully controlled choroidal hemangioma and exudative retinal detachment did not recurred and pressure dropped to normal during a follow up period of 6 months. Panretinal laser photocoagulation is proven successful in this particular case, as a less invasive alternative to external beam RT, devoid of any complications of radiation.

## Abstract 341

### TEMPORARY SCLERAL BUCKLING USING A FOLEY SILICONE CATHETER NUMBER 6

Lima Cabrita F.\*<sup>[1]</sup>, Guerreiro E.<sup>[1]</sup>, Gonçalves N.<sup>[1]</sup>, Dusova J.<sup>[2]</sup>, Lima I.<sup>[1]</sup>, Diniz R.<sup>[1]</sup>, Law N.<sup>[1]</sup>, Silva D.<sup>[1]</sup>

<sup>[1]</sup>University Hospital in Faro ~ Faro ~ Portugal, <sup>[2]</sup>University Hospital in Hradec Kralove ~ Hradec Kralove ~ Czech Republic

#### Introduction:

I am presenting my technique for temporary scleral buckling using a Foley Silicone Catheter number 6. Through meticulous experimentation, I identified the Foley Silicone Catheter number 6 as an excellent choice due to its flexibility, which enables notching, shaft trimming, and discreet subconjunctival placement after scleral and conjunctival suturing. This technique is invaluable for addressing single-tear retinal detachments at all clock hours near the equator. It can be used to complement pneumatic retinopexy in superior retinal tears by minimizing residual subretinal fluid accumulation and assists patients with challenges in postoperative positioning compliance. Furthermore, it can also be integrated with vitrectomy in complex detachments, enhancing inferior tamponade efficacy with silicone oil or gas for the inferior tears.

In the video, I demonstrate precise tear localization using an indirect ophthalmoscope and limbal clock hour marking with a dermatographic pen. This is followed by Foley catheter insertion 4mm from the limbus under subconjunctival anesthesia. Catheter inflation with balanced salt solution and proper positioning are ensured before notching, shaft trimming, and securing the catheter to the sclera with a 6/0 Ethibond suture, and conjunctival suturing with 7/0 Vicryl. Complete subretinal fluid reabsorption and retina reattachment are achieved by the following day. Argon laser treatment around the tear is administered on the first postoperative day, and the catheter can be deflated and easily removed after two weeks.

In summary, this technique, in very selected cases, offers expedited recovery, minimal invasiveness, comfort, and cost-effectiveness.

## Abstract 348

### MANAGING MACULAR TRD IN DIABETICS-TIPS AND TRICKS

Agarwal M.\*

*Dr Shroff's Charity Eye Hospital ~ New Delhi ~ India*

#### **Introduction:**

Doing diabetic vitrectomy has a learning curve. Macular tractional detachments can be difficult to manage. Various techniques can be applied for managing them. At times it can be a desperate situation to get back ambulatory vision back to the patients and many a times they maybe the sole bread earner. This video showcases various techniques such as vitrectomy cutter alone, bimanual surgery or a combination of both for managing these bad TRDs and also the auhtor provied the tips and tricks for a beginner

MISCELLANEOUS

## Abstract 350

### HIDDEN GHOST -TIPS AND TRICKS FOR INDUCING THE PVD

Agarwal M.\*

*Dr Shroff's Charity Eye Hospital ~ New Delhi ~ India*

#### **Introduction:**

Induction of the PVD is the most crucial step for any vitrectomy surgery. This video showcases the different techniques for inducing the PVD using forceps, finesse loop, DSP pic etc.

## Abstract 351

### MANAGING LARGE CYCLODIALYSIS CLEFTS-THE SEWING MACHINE TECHNIQUE

Agarwal M.\*

*Dr Shroff's Charity Eye Hospital ~ New Delhi ~ India*

#### **Introduction:**

Large cyclodialysis clefts are difficult to manage. They are common after trauma and surgeries such as trabeculectomy. They can cause excessive hypotony causing irreversible changes and at time phthisis bulbi. This video shows a novel technique of managing large cyclodialysis clefts



## Abstract 353

### VITRECTOMY FOR A MIMICKER OF FAMILIAL EXUDATIVE VITREORETINOPATHY: ADAMS OLIVER SYNDROME

Oral M.\*, Özdemir H.B., Özdek S.

*Gazi University ~ Ankara ~ Turkey*

#### **Introduction:**

This video is about a case of premature baby girl born at PMA of 35 weeks and referred to us at 41 weeks of PMA with a diagnosis of stage 4-5 ROP. The intensive care unit period was 15 days and did not take any oxygen support. There was no history of consanguinity between the parents and no known ocular pathology in other family members. There was mild brachydactyly in the hand and nail hypoplasia in the foot. Ophthalmological examination revealed total tractional retinal detachment in the right eye due to anteroposterior traction of the fibrovascular membranes covering the entire posterior pole and avascular peripheral retina. Left eye was similar but better with a retinal fold involving macula. Fundus fluorescein angiography (FFA) confirmed the avascularity of the entire peripheral retina and neovascularization and leakage of the fibrovascular tissue in both eyes. Lens sparing vitrectomy was performed bilaterally with a presumed diagnosis of FEVR. Two more surgeries as a part of staged surgery to the right eye were performed to relieve the tractions during 4 year follow up period. The patient gained ambulatory vision in the both eyes. Genetic study revealed a homozygous mutation in the DOCK6 gene (c.4198\_4199insATGG, p.V11400AspfsTer124) and diagnosed as Adams Oliver Syndrome.

Adams Oliver Syndrome is a syndrome characterized by FEVR-like peripheral avascular retina and secondary bilateral tractional RD, which may be accompanied by systemic skin and extremity deformities. ROP is also considered in the differential diagnosis when the baby is premature. Because of its genetic heterogeneity and variable penetrance, the diagnosis should be confirmed by genetic testing in suspected cases.

FULL THICKNESS MACULAR HOLE

## Abstract 354

### MANAGING FAILED MACULAR HOLES-TIPS AND TRICKS

Agarwal M.\*

*Dr Shroff's Charity Eye Hospital ~ New Delhi ~ India*

#### **Introduction:**

This video shows the various techniques of closing full thickness macular holes- inverse ILM flap, free ILM flap, full thickness graft, Amniotic membrane graft etc.

## Abstract 355

### INTRAOPERATIVE OPTICAL COHERENCE TOMOGRAPHY IN DIVERSE VITREORRETINAL SURGERIES - A USEFUL NEW TOOL

Ramalhão J.\*, Pessoa B.

*CHUdSA ~ Porto ~ Portugal*

#### **Introduction:**

Abstract.

Purpose:

To present several surgical videos where the use of the intraoperative optical coherence tomography (OCT) was an aid in the management of the patient.

Methods:

A retrospective selection of 6 different videos from 6 different patients who presented with common vitreoretinal pathologies and were submitted to surgery. The surgical intervention was performed using the CALLISTO microscope (Zeiss) which incorporates an intraoperative OCT.

Results:

Our videos exhibit the intra-operative possibility of confirming the complete peeling of epiretinal membranes, peeling of inner limiting membrane and subsequent flap creation in cases of macular hole. We also present cases of retinal detachment in which it is visible the drainage of subretinal fluid in the macular area. Another relevant situation where the use of the OCT is paramount are the cases of subretinal hemorrhage to guide the alteplase injection site.

Conclusion:

Overall, CALLISTO intraoperative OCT is an important tool to confirm the efficacy of our surgical maneuvers during most of vitreoretinal surgeries, especially when there is a macular involvement.

## Abstract 356

### **SPARE THE SCISSORS AND SPOIL THE RETINA - AN ALTERNATIVE TO CUTTER BASED MEMBRANE MANAGEMENT**

Govindahari V.\*

*Pushpagiri Eye Institute ~ Hyderabad ~ India*

#### **Introduction:**

Vitreoretinal surgery is a complex field involving the need for fine and measured movements to ensure optimal structural and consequentially functional outcomes. Vascular diseases such as Advanced Diabetic Retinopathy , Branch Retinal Vein Occlusion and Vasculitis pose challenging surgical scenarios due to a compromised ischemic and thin retina being pulled upon by vascular membranes with multiple foci of attachment.

The incidence of iatrogenic breaks during tractional retinal detachment surgery secondary to vascular pathologies is as high as 30% and this percentage is slowly reducing over the past few years with smaller gauge bi-blade high cut rate beveled cutters becoming the standard of care. Some of the issues faced while using cutters for membrane management include iatrogenic breaks due to cutter positioning and settings and excessive bleeding from the trimmed vascular fronds anchoring membranes to the retina.

The intraocular scissors is highly underrated instrument in retina surgery considering the control and preciseness it brings to various surgical steps. The advent of various types of scissors including the horizontal and vertical curved scissors have proven to be quite impactful in managing challenging tractional detachments especially using a bimanual chandelier illumination assisted approach.

As the age-old saying goes “Spare the rod and spoil the child”, we herein demonstrate the use of intraocular scissors as an essential tool and formidable replacement to vitrector for efficient and safe membrane management in cases of tractional retinal detachment. The use of scissors also obviates the need for bimanual vitreous surgery and results in improved surgical outcomes.

## Abstract 357

### THE GLOWPORT

Chandrakanth P.<sup>[1]</sup>, Verghese S.<sup>[2]</sup>

<sup>[1]</sup>DR CHANDRAKANTH NETHRALAYA ~ KOZHIKODE ~ India, <sup>[2]</sup>AMITA EYE CARE ~ THIRUVALLA ~ India

#### Introduction:

During small-gauge, sutureless pars plana vitrectomy(PPV), sclerotomies are maintained by cannulas comprising an internal micro-cannula and an external overcap.

The use of trocar cannulas during PPV facilitates smooth transition of instruments into the posterior segment and reduces trauma. However, room lighting is routinely dimmed during PPV and visualization of the ports can be difficult, compromising efficient instrument exchange.

Purpose: To report the use of a frugal, fluorescent “glow in the dark” ring placed over vitrectomy cannulas to visualize the cannula entry thereby providing a smooth and efficient instrument exchange.

Methods: We constructed fluorescent rings of optimum inner diameter so as to comfortably fit around the trocar cannula. Two such rings are fitted into the two trocar cannulas prior to surgery initiation. The cannulas are then passed via sclerostomy as performed in routine pars plana vitrectomy. The light from the fiberoptic illumination is shone over the rings for about 15 seconds so as to activate the fluorescence.

Results: As vitreoretinal surgeries are performed under dim light or dark conditions, glow port helps us in visualizing the cannula entry better. Under mesopic conditions, the fluorescence provides visualization of the cannula entry and helps in facilitation of smooth

## Abstract 358

### **NOVEL INDICATION FOR THE INNOVATIVE TECHNIQUE OF GLUE ASSISTED RETINOPEXY FOR RHEGMATOGENOUS RETINAL DETACHMENT SURGERY (GUARD) IN RECURRENT DETACHMENT WITH PROLIFERATIVE VITREORETINOPATHY (PVR)**

Jalali S.\*, Maheshwari A., Tyagi M.

*Anant Bajaj Retina Institute, L V Prasad Eye Institute ~ Hyderabad ~ India*

#### **Introduction:**

Silicone oil is commonly used for tamponade in complicated and recurrent retinal detachments. The common disadvantages of silicone oil include post operative positioning, need for second surgery for its removal, keratopathy and raised intraocular pressure. The technique of Fibrin glue assisted retinal detachment (GuARD) surgery has been described in uncomplicated, fresh retinal detachments in recent literature. Here we present the video of a case of a young male who had past history of open globe injury, aphakia, corneal tear repaired and recurrent retinal detachment under silicone oil. He was planned to undergo a silicone oil exchange secondary to recurrent retinal detachment with PVR. He was managed successfully with silicone oil removal, membrane peeling and Fibrin glue assisted surgery (GuARD) technique obviating the need for silicone oil tamponade, postoperative positioning and any further vitreoretinal surgical procedures.

OCULAR TRAUMA SURGERY

## Abstract 359

**FROM DISP**

Platner E.\*

*GOLDSCHLEGER EYE INSTITUTE, SHEBA MEDICAL CENTER ~ RAMAT GAN ~ Israel*

**Introduction:**

ONLY EYE TRAUMA REPAIR WITH LANDERS KERATOPROSTHESIS AND PPV

PEDIATRIC RETINA SURGERY

## **Abstract 360**

### **OPTIC PIT REPEAT**

Platner E.\*

*GOLDSCHLEGER EYE INSTITUET, SHEBA MEDICAL CENTER ~ RAMAT GAN ~ Israel*

#### **Introduction:**

OPTIC PIT CLOSURE WITH ILM FLAP AND AMNIOTIC MEMBRANE



## Abstract 361

### OPTIC DISC PIT MACULOPATHY TREATED BY PARS PLANA VITRECTOMY WITH FOVEAL SPARING NASAL INVERTED INTERNAL LIMITING MEMBRANE FLAP TECHNIQUE

Lee S.\*, Chae W., Kim W.J.

*Dongguk University, Gyeongju Hospital ~ Gyeongju ~ Korea, Republic of*

#### **Introduction:**

**Purpose:** To report macular serous retinal detachment and macular thinning due to optic disc pit treated by pars plana vitrectomy (PPV) with fovea-sparing internal limiting membrane(ILM) peeling, and nasal side inverted ILM flap.

**Case summary:** A 27-year-old male patient presented with a one-month history of decreased vision in the right eye. At initial visit, best corrected visual acuity(BCVA) in the right eye was 0.025 and fundus examination revealed an oval shape, deep-seated defect in the inferotemporal portion of the optic nerve and a 1/3disc diameter-sized chorioretinal coloboma inferior to the optic nerve. Optical coherence tomography (OCT) showed severe macular serous detachment with central foveal tissue thinning. Surgical treatment involved PPV, ILM peeling preserving 1 disc diameter of ILM in the central fovea, covering the optic disc pit with an inverted ILM flap from its nasal portion, fixing it with dispersed viscoelastic material along with intravitreal 20% sulfur hexafluoride gas injection and maintaining a facedown position for 3 days postoperatively. After 15 months, BCVA in the right eye improved to 0.63. Follow-up OCT revealed resolution of retinoschisis and serous retinal detachment, and the optic disc pit was covered by the ILM flap.

**Conclusions:** Fovea-sparing ILM peeling and inverted ILM flap over the optic disc pit in optic disc pit patients with thin inner retinal layers and excessive serous retinal detachment effectively prevents the occurrence of macular holes and is an efficient treatment for optic disc pit maculopathy.

## Abstract 368

### SEWING THE CLEFT

Agarwal M.\*

*Dr Shroff's Charity Eye Hospital ~ New Delhi ~ India*

#### **Introduction:**

A 14 year old boy with diminution of vision in the right eye to 6/24,N24 following an injury with a badminton racket 4 months back. The applanation tonometry recorded an IOP of 2 mm of Hg in the right eye. There was a subluxated lens with an evidence of 360 degree cyclodialysis cleft on gonioscopy. There was hypotonus maculopathy with a hyperemic swollen disc. The boy underwent pars plana lensectomy and anterior vitrectomy and intraoperative gonioscopy to confirm the extent of the cyclodialysis cleft. This was followed by the sewing machine technique of repairing the cyclodialysis cleft using a 26 gauge needle, 30 gauge needle and 10-0 prolene suture.

Follow up at 12 weeks the IOP was 18 mm of Hg and the best corrected visual acuity was 6/9,N6 with +11 D sphere correction.

This video shows the novel Sewing machine technique of "Cyclodialysis cleft repair"

## Abstract 369

### PDR WITH TABLE TOP TRD-25G 1" MAGIC

Mittal S.\*

*Thind Eye Care ~ Jalandhar ~ India*

#### **Introduction:**

Managing Proliferative Diabetic Retinopathy (PDR) with Table-top Tractional Retinal Detachment (TRD) and extensive fibrovascular proliferation can be challenging. In this instructional video, we demonstrate a straightforward technique for dissecting extensive membranes using a 25-gauge needle. A 4-port pars plana vitrectomy is performed, with a chandelier light placed in the infero-nasal quadrant. The end-gripping forceps are used to hold the membrane at its edge, while the needle is employed to delicately delaminate and cut the vascular epicenters.

## Abstract 370

### EXPULSIVE HEMORRHAGE-THE FINAL STAND

Mittal S.\*

*Thind Eye Care ~ Jalandhar ~ India*

#### **Introduction:**

Expulsive or supra-choroidal hemorrhage is a rare but serious complication that can occur during intraocular surgery. Management is indicated when vitreous hemorrhage or retinal detachment is present. In this instructional video, we demonstrate the successful stepwise management of supra-choroidal hemorrhage using four different cases.

## Abstract 376

### **PVR REMOVAL IN RETINAL DETACHMENT COMPLICATED CASES.**

Gonzalez--Cortes J.H.\*<sup>[1]</sup>, Garza--Chavarria J.A.<sup>[1]</sup>, Gonzalez--Cantu J.E.<sup>[1]</sup>, Bilgic A.<sup>[2]</sup>, Sudhalkar A.<sup>[3]</sup>, Mohamed--Hamsho J.<sup>[1]</sup>

<sup>[1]</sup>Ophthalmology Department. University Hospital "Dr. Jose Eleuterio Gonzalez", Faculty of Medicine, Universidad Autonoma de Nuevo Leon, Monterrey, Nuevo León, Mexico. ~ Monterrey ~ Mexico, <sup>[2]</sup>Augen Zentrum Fankhauser AG ~ Bern ~ Switzerland, <sup>[3]</sup>MS Sudhalkar Medical Research Foundation ~ Baroda ~ India

#### **Introduction:**

##### **Purpose:**

Treatment of secondary PVR in eyes with silicone oil is often prolonged and complicated. The purpose of this video is to show an alternative in the removal of severe secondary PVR quickly and safely.

##### **Methods:**

Presentation of an alternative surgical technique for the treatment of severe secondary PVR in two eyes previously operated with silicone oil tamponade.

##### **Results:**

Without the need for the infusion port, two-port surgery and retinal forceps dissection of the PVR through the silicone oil-filled vitreous cavity is performed.

##### **Conclusions:**

Despite the expertise of a vitreous and retina surgeon, treating severe secondary PVR can be challenging. Removal of the PVR in a silicone-filled eye is a fast, effective, and safe surgical alternative.

## Abstract 385

### INTRAOPERATIVE OCT FOR MACULAR SURGERY: REAL-TIME INSIGHT FOR THE CENTER OF OUR SIGHT

Martins D.\*<sup>[1]</sup>, Neves P.<sup>[2]</sup>, Santos M.<sup>[1]</sup>, Ornelas M.<sup>[2]</sup>

<sup>[1]</sup>Hospital da Luz ~ Setúbal ~ Portugal, <sup>[2]</sup>ULS Arrábida - S. Bernardo Hospital ~ Setúbal ~ Portugal

#### Introduction:

##### #Introduction:

Intraoperative optical coherence tomography (iOCT) is a recent imaging modality that provides real-time anatomical information during ophthalmic surgery. More specifically, this technology has been used during vitreoretinal surgery, both aiding in diagnosis and technical performance, and in detection of complications. The authors present cases of macular surgery where iOCT proved valuable in confirmation of adequate technique.

##### #Clinical cases:

Case 1: vitrectomy and peeling of epiretinal membrane with diffuse retinal thickening. iOCT shows adequate removal of all membrane remnants, with no complications;

Case 2: vitrectomy and peeling of internal limiting membrane (ILM) with inverted flap technique for a large macular hole. Correct positioning of the ILM flap was confirmed with iOCT, before gas tamponade;

Case 3: vitrectomy, ILM peel and plasma rich in growth factors (PRGF) graft placement for a large macular hole with over 1 year of diagnosis. iOCT aided in confirmation of correct placement and confirmation of coagulation before gas tamponade.

##### #Conclusions:

iOCT is a valuable tool for macular surgery, providing real-time insight on techniques with proven efficacy and increasing safety for patients. Even though it may be expensive at this time, eye surgeons would benefit from gradually adopting this technology.

## Abstract 386

### INTRAOPERATIVE OCT AND RETINAL DETACHMENTS: KNOW THY MACULA

Neves P.\*<sup>[1]</sup>, Ornelas M.<sup>[1]</sup>, Santos M.<sup>[2]</sup>, Martins D.<sup>[2]</sup>

<sup>[1]</sup>ULS Arrábida - S. Bernardo Hospital ~ Setúbal ~ Portugal, <sup>[2]</sup>Hospital da Luz ~ Setúbal ~ Portugal

#### Introduction:

##### #Introduction:

Intraoperative optical coherence tomography (iOCT) is a recent imaging modality that provides real-time anatomical information during ophthalmic surgery. Retinal detachment patients are frequently a challenge in more ways than one. One specific problem is that the macula may not be clearly visible before surgery, either due to a cataract or vitreous hemorrhage, or by simply being blocked from examination by a large retinal detachment. The authors present cases of retinal detachment surgeries where iOCT proved valuable in detecting macular complications, which led to critical changes in surgical management.

##### #Clinical cases:

Case 1: a large superior retinal detachment where preoperative macular examination was not possible was shown on iOCT to have a large epiretinal membrane. After adequate confirmation, peeling of the epiretinal membrane and consequent relief of all tractions led to a better anatomical outcome;

Case 2: in another retinal detachment case, this time the patient was shown to have a macular hole that was not previously diagnosed. After confirmation with iOCT, the patient was subjected to ILM peeling and flap, and tamponade changed to silicone oil.

##### #Conclusions:

iOCT is a valuable tool for the adequate evaluation of macular status in retinal detachment cases, both at the beginning and at the end of surgery. Not only can the iOCT aid in confirmation and justification of surgical techniques used in any patient, but it may also completely change the management of these patients. In our experience, it has proven especially useful when no macular evaluation was possible on admission.

## Abstract 387

### **SILICONE OIL-ASSISTED REMOVAL OF LARGE INTRAOCULAR FOREIGN BODIES.**

Gonzalez--Cortes J.H.\*<sup>[1]</sup>, Gonzalez--Cantu J.E.<sup>[1]</sup>, Garza--Chavarria J.A.<sup>[1]</sup>, Sudhalkar A.<sup>[2]</sup>, Bilgic A.<sup>[3]</sup>, Mohamed--Hamsho J.<sup>[1]</sup>

<sup>[1]</sup>Ophthalmology Department. University Hospital "Dr. Jose Eleuterio Gonzalez", Faculty of Medicine, Universidad Autonoma de Nuevo Leon, Monterrey, Nuevo León, Mexico. ~ Monterrey ~ Mexico, <sup>[2]</sup>MS Sudhalkar Medical Research Foundation ~ Baroda ~ India, <sup>[3]</sup>Augen Zentrum Fankhauser AG ~ Bern ~ Switzerland

#### **Introduction:**

##### **Purpose:**

The removal of large intraocular foreign bodies (IOFBs) can be challenging for the surgeon. This video shows a safe and effective alternative for their extraction.

##### **Methods:**

Description of a technique for removal of large IOFBs in two pediatric patients.

##### **Results:**

Two pediatric patients with large IOFBs, one in the macular area and the other in the subretinal space. Due to their size, in both cases it was decided to complete the procedure with air/SO exchange. A large sclerotomy was performed and the IOFBs were removed with a retinal forceps in one case and with an external magnet in the other.

##### **Conclusions:**

Removal of a large IOFB through a wide sclerotomy can result in significant loss of ocular stability with deformation of the eye due to excessive leakage of balanced salt solution. Prior vitreous tamponade with SO significantly reduces this eventuality.



## Abstract 388

### ENDOGENOUS CANDIDA ENDOPHTHALMITIS IN A 4-MONTH-OLD FEMALE WITH PREVIOUS COVID-19 INFECTION.

Gonzalez--Cortes J.H.\*<sup>[1]</sup>, Sudhalkar A.<sup>[2]</sup>, Bilgic A.<sup>[3]</sup>, Gonzalez--Cantu J.E.<sup>[1]</sup>, Garza--Chavarria J.A.<sup>[1]</sup>, Mohamed--Hamsho J.<sup>[1]</sup>

<sup>[1]</sup>Ophthalmology Department. University Hospital “Dr. Jose Eleuterio Gonzalez”, Faculty of Medicine, Universidad Autonoma de Nuevo Leon, Monterrey, Nuevo León, Mexico. ~ Monterrey ~ Mexico, <sup>[2]</sup>MS Sudhalkar Medical Research Foundation ~ Baroda ~ India, <sup>[3]</sup>Augen Zentrum Fankhauser AG ~ Bern ~ Switzerland

#### Introduction:

Purpose: Endogenous endophthalmitis is a challenge in both systemic and intraocular management. This video shows an endogenous endophthalmitis in the context of a previous Covid-19 and pediatric inflammatory multisystemic syndrome (PIMS) in a 4-month-old female.

#### Methods:

Description of the clinical characteristics and treatment of a pediatric patient with a previous neonatal Covid-19 infection who developed endophthalmitis due to *Candida albicans*.

#### Results:

Successful postoperative outcome was achieved, defined as disappearance of active inflammation within the eye with no new fungus balls and a favorable structural outcome. Systemic workup was performed, and the source of infection was identified as a fungal endocarditis.

#### Conclusions:

This case represents an association of previous Covid infection that could be a risk factor for immunosuppression, candidaemia and endophthalmitis due to *Candida albicans*. Early intervention can result in favorable surgical and therapeutic outcomes.

## Abstract 389

### **SURGICAL TREATMENT OF MASSIVE SEROUS CHOROIDAL DETACHMENT ASSOCIATED WITH RHEGMATOGENOUS RETINAL DETACHMENT AS A COMPLICATION OF CATARACT SURGERY.**

Gonzalez--Cortes J.H.\*<sup>[1]</sup>, Bilgic A.<sup>[3]</sup>, Gonzalez--Cantu J.E.<sup>[1]</sup>, Garza--Chavarria J.A.<sup>[1]</sup>, Sudhalkar A.<sup>[2]</sup>, Mohamed--Hamsho J.<sup>[1]</sup>

<sup>[1]</sup>Ophthalmology Department. University Hospital "Dr. Jose Eleuterio Gonzalez", Faculty of Medicine, Universidad Autonoma de Nuevo Leon, Monterrey, Nuevo León, Mexico. ~ Monterrey ~ Mexico, <sup>[2]</sup>MS Sudhalkar Medical Research Foundation ~ Baroda ~ India, <sup>[3]</sup>Augen Zentrum Fankhauser AG ~ Bern ~ Switzerland

#### **Introduction:**

##### Purpose

Different secondary complications in phacoemulsification surgery can occur, including retinal and choroidal detachment. This video shows a simple alternative in the treatment of massive choroidal detachment associated with rhegmatogenous retinal detachment as a complication of cataract surgery.

##### Methods

A 67-year-old female patient, with a history of complicated phacoemulsification surgery, with previous diagnosis of inflammatory serous choroidal detachment, treated with topical and systemic corticosteroids, without improvement. Surgical intervention was planned due to massive choroidal detachment associated with rhegmatogenous retinal detachment.

##### Results

Due to severe hypotension, perfluorocarbon heavy liquid (PFCHL) is introduced into the vitreous cavity through the central corneal port to stabilize the retinal detachment and intraocular pressure. Subsequently, a non-valved cannula is introduced through a trocar into the suprachoroidal space. Suprachoroidal drainage is achieved by filling the eye with PFCHL and slowly withdrawing the non-valved cannula, observing the passive outflow of fluid. Valved cannulas are placed for removal of residual anterior vitreous and solution-air exchange is performed, completing subretinal fluid drainage through a planned retinotomy. Peripheral photocoagulation and air/PFCHL-silicone oil exchange are completed, eliminating the residual vitreous fluid.

##### Conclusions

A delay in surgery or waiting time for an improvement in choroidal detachment, inflammation or hypotonia is generally accompanied by poor visual recovery. Therefore, drainage with 25g non-valved cannulas is a simple, safe, and effective technique with the advantage of performing vitreoretinal surgical procedures if associated with retinal detachment.

## Abstract 390

### NET TECHNIQUE: SECONDARY IMPLANTATION OF DISLOCATED 3-PIECE PMMA INTRAOCULAR LENS

Cyrino F.V.R.\*, Lucena M.M.D.

*University of São Paulo ~ Ribeirão Preto ~ Brazil*

#### Introduction:

The technique of secondary intraocular lens (IOL) implantation on a sutureless scleral fixation is an alternative for repositioning dislocated IOLs, as reported by Novelli et al. in 2017. In this video, we describe the surgery performed on a patient with a dislocated 3-piece PMMA lens into the vitreous cavity. We outline the step-by-step technique of secondary implantation.

Firstly, we perform a 360-degree conjunctival peritomy with adequate hemostasis. After positioning the trocars, we start with the posterior vitrectomy and visualization of the vitreous base with indentation, avoiding tractions and iatrogenic retinal tears.

With the release of the IOL adhered to the anterior vitreous, we proceed with the placement of perfluorocarbon in the posterior pole to protect the macular region.

Using a Castroviejo compass, we mark the vertical and horizontal axes on the cornea to guide the remaining markings 2 millimeters from the limbus in each quadrant, through which the 10-0 prolene suture will enter for support construction. We use a 29-gauge insulin needle to guide the prolene suture through the exit points.

After passing the prolene suture through the first marked entry point, we make a new entry 4 millimeters from the first, and then proceed to tie the suture on the vertical axis. It is important to note that when cutting the prolene suture with scissors, one should avoid cutting close to the knot, so that the suture rests loosely under the conjunctiva, reducing the risk of postoperative extrusion.

The same procedure was performed on the horizontal axis. However, unlike the vertical axis, the prolene suture was not tied immediately after being passed, to allow the dislocated lens to pass after adequate posterior vitrectomy. With the aid of micro-forceps, the IOL was then removed from the vitreous cavity and positioned over the prolene net.

Finally, we aspirate the perfluorocarbon and proceed with conjunctival suturing using 7-0 Vicryl. The patient progressed with a stable and centralized IOL over the constructed support.

## Abstract 395

### GIANT MACULAR HOLE SURGICAL REPAIR IN ADVANCED DIABETIC RETINOPATHY

Garcia Franco R.\*

*dr ~ dr ~ Mexico*

#### **Introduction:**

giant macular holes can be repaired through vitrectomy and use of grafts, in this video we show the use of remaining fibrovascular proliferations secondary to diabetic retinopathy as a graft to close macular defect, also we show de use of amniotic membrane to close this kind of macular holes, and other tractional detachment tears, the technique and complications are shown.

## Abstract 396

### TIPS AND TRICKS IN MANAGING RETINAL DETACHMENT WITH PVR

Sanduja N.\*

*VIAAN EYE AND RETINA CENTRE ~ GURGAON ~ India*

#### **Introduction:**

Proliferative vitreoretinopathy (PVR) is the leading cause of failed rhegmatogenous retinal detachment (RRD) surgery. After Vitrectomy, it is extremely important to remove all folds, wrinkling, and contraction by identifying the membranes that are responsible for causing them. This video highlights 3 cases of RD with PVR who underwent removal of epiretinal membranes and subretinal bands with help of various intraoperative tools like Brilliant blue dye, Tricort, Diamond dusted spatula and end gripping forceps, to enable retina to become mobile again and settle with good visual outcome.

## Abstract 397

### RETAINED IOFBS- OVERCOMING CHALLENGES WITH SUCCESSFUL VISUAL OUTCOME

Sanduja N.\*

*VIAAN EYE AND RETINA CENTRE ~ GURGAON ~ India*

#### **Introduction:**

Intraocular foreign bodies (IOFBs) represent a subset of ocular injuries that present complex surgical challenges to remove the IOFB successfully while attempting to preserve vision and restore ocular architecture. This video shows different presentations of metallic and non metallic intraocular foreign bodies and tips to retrieve them successfully using PFCL, IOFB forceps, Intraocular magnets with good visual outcome.

## Abstract 398

### TELEMEDICINE ENABLED SMARTPHONE BASED ROP SCREENING DEVICE WITH INBUILT MULTI MODAL ILLUMINATION SYSTEM.

Banker A.<sup>[1]</sup>, Nagersheth Y.<sup>[2]</sup>

<sup>[1]</sup>Banker's Retina Clinic and Laser Centre ~ Ahmedabad ~ India, <sup>[2]</sup>C3Medtech ~ Ahmedabad ~ India

#### Introduction:

##### PURPOSE:

Currently available contact ROP Screening devices are very expensive, making it less accessible for majority of practitioners. The development of C3 Fundus is to provide portable, affordable ROP screening device for clinics and resource limited areas through a robust Telemedicine software platform where the Ophthalmologist will be able to give an almost real time diagnosis for early intervention and immediate action

##### METHOD:

C3 Fundus is a portable, battery operated fundus device which uses a smartphone and indirect lens to examine the retina. The device has an inbuilt illumination system which is coaxial with the camera of the smartphone. The illumination system is multi modal which contains two modes of white light ( low and high intensity) and a blue light mode. The device has a continuous usage battery life 4-5 hours with a rechargeable battery. The device can be used with majority of smartphones available in the market. C3 Fundus has a specially designed unique curvature that rests on the cheek of the baby giving stability to capture high quality images and videos. The curvature is placed on the baby's cheek which allows the device to be tilted for peripheral imaging of the retina upto zone 3 and beyond. The Telemedicine software allows you to add patient information, ROP risk factors required for diagnosis. The software has a multiple login feature which allows the specialist to look at the images and data captured by the user conducting the screening at a different location. Once the data is captured the user can select, crop, rotate the images as desired. The user will be able to generate a report containing necessary information which can be share with the Ophthalmologist/Hospital.

##### RESULTS:

The device is able to capture extremely high quality true color rop images and videos comparable to existing contact ROP screening cameras. The report can be accessed through a computer/tablet/smartphone. Ophthalmologist's diagnosis will be reflected onto the user's device. As a result, the patient can be redirected to a higher centre for the treatment. The digital report can be printed out, stored for follow ups and patient education

##### CONCLUSION:

In conclusion we can say that the C3 FundusCam can prove to be an extremely cost-effective device for conducting ROP screening comparable to currently available contact ROP screening devices as it is the first smartphone based device with a robust telemedicine platform. We plan to integrate an Artificial Intelligence platform for detecting Agressive Retinopathy of Prematurity and Plus disease

## Abstract 403

### MACULAR HOLE SURGERY- NAVIGATING THE VARIED OPTIONS

Chattopadhyay A.\*, Paul S., Ghosh Roy J.

*PRIYAMVADA BIRLA ARAVIND EYE HOSPITAL ~ KOLKATA ~ India*

#### **Introduction:**

Surgeries for full thickness macular hole requires thorough knowledge as well as excellent skill, patience & courage on the part of the surgeon. Small incision vitrectomy techniques along with different new instruments changed the benchmark of the surgery to a new high. There are different adjuncts like Triamcinolone, dyes like Indocyanine Green, Trypan Blue, Brilliant Blue dyes also helped us in different steps of the surgery. Macular hole surgeries in different situations are discussed here. Also different techniques like simple ILM peeling, inverted flap, temporal flaps also shown & discussed here. Surgeries for Macular Hole in attached & detached retina, post detachment hole, traumatic macular hole with extensive scarring etc. are shown here. This video will be bringing the different varieties of hole closure techniques in a single platform.



## Abstract 416

### COMPLEX TRAUMA REPAIR-IS IT WORTH IT?

Chwiejczak K.\*

*Nottingham University Hospitals NHS Foundation Trust ~ Nottingham ~ United Kingdom*

#### **Introduction:**

Secondary repair in complex trauma cases can be debatable. Enucleation within 21 days is still one of the options to prevent sympathetic ophthalmia.

Attempt to perform surgical repair can be a time-consuming and challenging task with limited visual gain. This case is to present a case secondary repair in a context of complex trauma

#### **Materials and methods:**

A case repair and video presentation of a 72 year-old male patient who underwent primary repair and consecutive vitreoretinal procedures of left ruptured globe, following a blunt trauma with a piece of wood in May 2023 at Nottingham University Hospitals NHS Foundation Trust.

At the time of the primary repair large corneal and scleral wound with loss of lens and uveal tissue was noted. Primary repair was conducted, but due to no light perception, vision and disorganized anterior segment, option of enucleation was discussed with the Patient.

After consultation with a vitreoretinal surgeon secondary repair was offered in attempt to preserve the eye.

There was no fundal view , but ultrasound examination revealed kissing haemorrhagic choroidal detachments.

#### **Results:**

10 days after the initial repair secondary surgery was carried out. 2 ports were placed though the limbus and one , superior temporal about 2 mm from the limbus

localised peritomy was done inferior- temporal and choroidal blood was drained via 2 mm cutdown incision 6 mm from the limbus

anterior chamber was cleared from necrotic tissue and blood with cutter and opened with cohesive viscoelastic.

vitreous cavity was visualised with closed funnel retinal detachment and anterior retina incarcerated in the scleral wound.

Visibility was challenging due to large corneal wound and sutures. Large choroidal cleft was evident superior-nasally.

funnel was open with viscoelastic, partial retinectomy was performed . No significant proliferative vitreoretinopathy was visible.

Heavy liquid was introduced to the funnel, allowing opening. retinectomy was completed and 360 laser performed.

Choroidal cleft was closed with 10.0 Prolene suture. Some corneal sutures were replaced.

Heavy liquid was left in situ for another 10 days. After that, heavy liquid was removed. There was some retinal slippage, due to lack of patients compliance with posturing, but posterior pole remained attached.

Additional laser was performed and retention sutures (10.0 Prolene) placed 1.5mm from the limbus due to lack of iris tissue in the anterior segment.

Silicone oil 5000cs was inserted via direct exchange.

Patient recovered perception of light vision in the early postoperative period.

**Conclusions:**

Despite poor visual prognosis in severe trauma cases, option of surgery should be offered to patients whenever possible, Vitreoretinal Team should always be involved in the assessment of such cases to avoid premature enucleations. Honest discussion and patient involvement in the decision making is very important.

## Abstract 431

### A NOVEL TECHNIQUE (GURELIK TECHNIQUE) IN THE TREATMENT OF INTRAOCULAR LENS DISLOCATIONS

Gurelik I.G.\*

*GAZI UNIVERSITY ~ ANKARA ~ Turkey*

#### **Introduction:**

Purpose of this video is to present a novel surgical technique in repositioning dislocated IOL's regardless of its type, in eyes with no capsular support.

Avantage of this technique is that there is no need to remove the dislocated IOL's from the eye. 10/0 pairpak sutures are used to create an artificial suture platform. The dislocated IOL is being placed on this artificial suture platform, and the haptics are placed through the suture intersection squares formed at the outer corners of the platform.

## Abstract 432

### STOP EVISCERATION! GIVE A CHANCE

Gurelik I.G.\*

*GAZI UNIVERSITY ~ ANKARA ~ Turkey*

#### **Introduction:**

In this video, extreme ocular traumas with NLP, corneal opacity and 'oyster like' choroidal detachment is managed with Temporary Keratoprothesis and Choroidoplasty. Choroidal reattachment via choroidoplasty with prolene sutures is shown. Afterwards, Vitreoretinal surgical techniques are used to reattach the compressed retina.

## Abstract 433

### UVEA-CHOROIDOPLASTY IN A SEVERE TRAUMA EYE WITH 'SUNKEN UVEA'

Gurelik I.G.\*

*GAZI UNIVERSITY ~ ANKARA ~ Turkey*

#### **Introduction:**

In this video, an extreme ocular traumas case with NLP and sunken uvea, uveal reattachment via choroidoplasty with prolene sutures is shown. Afterwards, Vitreoretinal surgical techniques are used to reattach the folded and incarcerated retina.

## Abstract 434

### ADJUVAN USE OF MITOMYCINE C IN THE TREATMENT OF SEVERE PVR IN TRAUMATIC RETINAL DETACHMENT

Gurelik I.G.\*

*GAZI UNIVERSITY ~ ANKARA ~ Turkey*

#### **Introduction:**

In this video, after vitrectomy and reattaching the retina, temporary intraoperative use of Mitomycin C (MMC) is shown to treat and prevent proliferative vitreoretinopathy. This technique is previously described as MMC sandwich technique by Dr Gokhan Gurelik.

## Abstract 435

### ADJUVAN USE OF MITOMYCINE C IN THE TREATMENT OF SEVERE TRACTIONAL DIABETIC RETINAL DETACHMENT

Gurelik I.G.\*

*GAZI UNIVERSITY ~ ANKARA ~ Turkey*

#### **Introduction:**

In this video, after vitrectomy and reattaching the retina, temporary intraoperative use of Mitomycine C (MMC) is shown. This technique is previously described as MMC sandwich technique by Dr Gokhan Gurelik.

## Abstract 436

### VITRECTOMY FOR TRD. (PROGNOSTIC & VISUAL OUTCOME) IN TRIPOLI LIBYA

Alsawidi K.\*

*Nuri ~ Arrasen Eye Center ~ Libyan Arab Jamahiriya*

#### **Introduction:**

Purpose of the study:

To examine outcomes of 23-gauge (23G) pars plana vitrectomy (PPV) for complex diabetic tractional retinal detachment (TRD) in Tripoli Libya.

This is a retrospective noncomparative study of diabetic TRD cases that underwent PPV at Arrasen Clinic.

The Results.

The best corrected visual acuity improved in 150 eyes (60.97%) although the vision was worsened in 32 eyes (13.01%), In addition the vision remained unchanged in 64 eyes (26.02%).

Conclusion:

Modern vitrectomy techniques can provide excellent anatomical and visual outcomes even in many advanced TRD patients. We should consider the risk of glaucoma post TRD PPV.



## Abstract 441

### **DIRECT TRANSRETINAL DRAINAGE OF SUBRETINAL FLUID IN EYES WITH RHEGMATOGENOUS RETINAL DETACHMENT**

**Kapran Z.**<sup>[1]</sup>, Altan T.<sup>[1]</sup>, Acar Gocgil N.<sup>[1]</sup>, Sayin N.<sup>[2]</sup>

<sup>[1]</sup>Neoretina Eye Clinic ~ Istanbul ~ Turkey, <sup>[2]</sup>Kanuni Sultan Süleyman Education and Research Hospital ~ Istanbul ~ Turkey

#### **Introduction:**

This video demonstrates a new surgical technique for the internal drainage of subretinal fluid (SRF) during pars plana vitrectomy (PPV) for the repair of rhegmatogenous retinal detachment (RRD). 25-gauge PPV is performed with near complete removal of vitreous, and transretinal drainage of subretinal fluid using a new 25G/33G subretinal cannula with active suction. Laser photocoagulation was not necessary and not applied around the drainage area. Postoperatively no subretinal fluid is detected with OCT with significant increase in vision. In this technique mostly single site drainage is effective. Transretinal drainage of SRF with the assistance of a new 25/33G subretinal cannula is effective and may positively affect early postoperative outcomes.

MISCELLANEOUS

## Abstract 446

### SURGICAL REMOVAL OF A RETINAL CAVERNOUS HEMANGIOMA

Parolini B.\*

*clinica brescia ~ brescia ~ Italy*

#### **Introduction:**

Surgical removal of a retinal cavernous hemangioma

MISCELLANEOUS

## Abstract 447

**TREATMENT OF END STAGE TRACTIONAL EXUDATIVE RETINAL DETACHMENT SECONDARY TO COATS' DISEASE IN AN 8 YO CHILD**

Parolini B.\*

*clinica brescia ~ brescia ~ Italy*

### **Introduction:**

TREATMENT OF END STAGE TRACTIONAL EXUDATIVE RETINAL DETACHMENT SECONDARY TO COATS' DISEASE IN AN 8 YO CHILD

MISCELLANEOUS

## Abstract 448

### WHERE IS THE LIMIT?

Parolini B.\*

*clinica brescia ~ Brescia ~ Italy*

#### **Introduction:**

reatment of retinal detachment and choroidal disinsertion after corneal perforation in an 8 yo child with Peter's anomal

MISCELLANEOUS

## Abstract 449

### LET'S TUTO-PATCH!

Parolini B.\*

*CLINICA BRESCIA ~ BRESCIA ~ Italy*

#### **Introduction:**

use of bovine pericardium to patch retinal holes in atrophic areas in a high myopic eye