

# Special Session August 21, 2017

# Eye 2017



# 3rd International Conference on EYE AND VISION

3<sup>rd</sup> International Conference on

## EYE AND VISION August 21-23, 2017 | Toronto, Canada



## **Murad A Sunalp**

Sunalp Laser Vision, USA

Corneal marking of toric IOL with sunalp yag laser lens

We have devised a new method to mark the corneal axis of Toric IOL that is inexpensive and precise. Methods: In the office, a drop of ophthaine is placed on the eye, and the patient is asked to place his/her chin on the chin-rest of the Yag laser. The "Sunalp Yag laser lens is placed on the para limbal cornea with 90° lens corresponding to the 90° of the patient cornea. The Yag laser is focused at the mid cornea at 270° and a single laser pulse of 10 mjoules is aimed at 270° with 1-3 pulses in line, 0.5 mm apart. The laser pulse marks the cornea with a small disruption and blanching of the stroma that remains visible for 48 hours or longer. The Sunalp Yag laser lens is a 1 cm, 12 diopter single-use, acrylic lens, which will be available in the near furure.

**Results:** Presurgical corneal marking using the Sunalp Yag laser lens, a lens specially designed for the Yag laser, allows for accurate alignment of toric IOL during surgical implantation. The markings remain clearly visible throughout the procedure and for an additional 48 hours, giving ample time for pre-op marking. **Conclusion:** To avoid the pitfalls of preoperative unreliable marking with an ink pen, we have devised a method to mark the cornea using the Yag Laser. Using the Sunalp Yag laser lens, precise, durable makring can be made without the use of expensive equipment.

#### **Speaker Biography**

Dr. Sunalp has provided state of the art ophthalmologic services in the San Joaquin valley for the last 30 years. His specialized training has given the community access to ophthalmic laser surgery using VISX and LASIK Excimer Laser systems, up-to-the minute cataract management using multifocal and toric intraocular lens implants; and glaucoma and diabetic eye care. He has developed innovative techniques to treat common eye diseases such as diabetic retinopathy in a safe and effective manner. Though dedicated to professional services. He has also pledged time and resources to the community, providing eye examinations, and support to local charities such as CASA (Court Appointed Special Advocate) for Children and Visalia Veterans Committee.

e: slv@sunalplaservision.com

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### ND VISION EYE A August 21-23, 2017 | Toronto, Canada



## Sergio Ozan

CEPROC, Argentina Scleral prosthetic lenses

ifty-one year-old-patient undergone two times corneal ransplant in right eye, first corneal transplant in 1999 and second one in 2010, but the patient did not get the vision. After a year there was considerable deformation in the corneal tissue and the cornea became totally leukomatous, deformed and irregular, and the eyeball descending to lower eyelid (keratoglobe). I met the patient with Ophthalmologist diagnosis of eyeball evisceration. Thus the patient was with deep depression. Due to the irregular and deformed cornea neither an ocular prosthesis nor soft prosthetic lens could be adapted. So, I tried with a scleral lens. In the first test the general condition of her irregular cornea improved considerably, permitting a good tear film flow between the cornea and the lens. I checked again her cornea and there was neither vision nor light reflection. I consulted the Director of Scleral lenses for Perfect Vision in Chile and suggested using a double flap over the lens. Thus the landing in the

sclera was improved and was not ejected. I adapted a scleral lens X-cell Atlantis, base curve 7.50, diameter 17.5 double flap. I placed a soft lens painted with black pupil and then a second scleral lens with the same parameters, with perfect adhesion. The patient felt very comfortable, with improved quality of life, could insert herself at work again and now her life has completely changed for the better.

#### **Speaker Biography**

Sergio Ozan is serving as an Optician at the University of Buenos Aires, Argentina. He is a Specialist in contact lenses, Specialist and Manufacturer of ocular prosthesis and Scientific Adviser for ocular prosthesis in APO (Asociación Profesional de Optómetras in Argentina). He is a Precursor and Creator of multiperforated orbital implant, JUMAT, Precursor and Creator of expander orbit asmotic hydrogel filling for microophthalmia, Director of CEPROC, Director of Ocular Prosthesis Division in Perfect Vision, Santiago, Chile, Developer of one-hour customized ocular prosthesis method, unique in Latinamerica and Precursor and Creator of the first prosthetic scleral lens.

e: ceproc@ceproc.com.ar



# Scientific Tracks & Abstracts August 21, 2017

# *Eye 2017*



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#### Modern vitreoretinal surgery and new trends in the treatment of retinal disorders

Hudson de Carvalho Nakamura Goias Bank of Eyes Foundation, Brazil

Introduction: Vitreoretinal surgery has far advanced since the last decades, coming to a modern area of both vitrectomy and viewing systems, as well as with better approaches from the retinal surgeon, with the use of smaller gauge instruments, making the procedure easier to perform, thus contributing to a better follow up and recovery from the surgery. Though repairing techniques have changed, scleral buckling techniques are still popular since Charles Schepen's techniques in the early 1950s. Combined approaches are still largely employed, increasing the likelihood of attaching the retina, such as pars plana vitrectomy and scleral buckling procedures, with laser or cryotherapy, the last one mentioned less used due to disadvantages involving retinal pigment epithelium spreading and proliferative vitreoretinopathy, but not counter indicated though. Even though the cost and equipment involving vitrectomies are higher than those of scleral buckling alone, the anatomical results are proved to be faster with both approaches rather than with just one. Scleral buckling techniques, even though used in a lesser extent, still have the indication especially in the phakic patient. For the pseudophakic or aphakic patient, some buckle techniques or modified and combined buckle and vitrectomy techniques are used, such as using a band together with vitrectomy to help increase the likelihood the retina will attach during and after the procedure is made. Vitreoretinal surgery used to take too long before the development of wide angle vitrectomy viewing systems. Before it, prisms lenses had to be rotated for the aim of viewing the far periphery, and the contact lens often had to be held with a ring on the cornea. With the advent of 23-gauge vitrectomy, 25 and 27 came afterwards and are far more used nowadays, and benefits are linked to better success rates. Intraoperative Optical Coherence Tomography assisted vitrectomies, despite expensive, are helping treat macular diseases as well as other vitreoretinopathies, giving a simultaneous visualisation of the procedure of the actual surgical record comparing with the topographical cut making it more accurate to approach the retina and expecting better outcomes. Magnifying lenses and inverting image systems are applied in the management of manage macular

diseases such as macular holes, epiretinal membranes and others such as proliferative vitreoretinopathy. The use of gas or silicon oils increased overtime, as well as fluorocarbon liquids, playing a very important role not only in repairing retinal detachments, but also helping the surgeon control better hard and demanding cases.

Conclusions: We conclude that such a combined approach to primary pseudophakic and aphakic retinal detachments offers significant benefits to scleral buckling alone. We believe that the improved success rate is a function of vitrectomy contributing to both an improved peripheral visibility, resulting in fewer missed peripheral breaks, and a lower likelihood of proliferative vitreoretinopathy. We recommend this combined surgical approach for all primary pseudophakic and aphakic retinal detachments. We conclude that such a combined approach to primary pseudophakic and aphakic retinal detachments offers significant benefits to scleral buckling alone. We believe that the improved success rate is a function of vitrectomy contributing to both an improved peripheral visibility, resulting in fewer missed peripheral breaks, and a lower likelihood of proliferative vitreoretinopathy. We recommend this combined surgical approach for all primary pseudophakic and aphakic retinal detachments. Also, smaller gauge vitrectomies and wideangle vitrectomy viewing systems help manage tough cases with less time and better outcome, making it feasible and more cost effective in today's vitreoretinal surgery techniques.

#### Speaker Biography

Hudson Nakamura is a Medical Specialist in Ophthalmology and specialized in Retina and Vitreous. He completed his study from School of Medicine at the Federal University of Goiás – UFG and Residency from the Base Hospital of the Federal District - Brasília - DF. Presently, member of American Academy of Ophthalmology, Brazilian Council of Ophthalmology, Canadian Society of Ophthalmology and also the member of most prestigious society ARVO - The Association for Research in Vision and Ophthalmology United States. He works as a Professor in Department of Retina and Vitreous Course of Medical Residency in Ophthalmology at the Bank of Goias Eye Foundation. He also works as Specialist in vitreoretinal disease Fellowship - University of Toronto Canada, Specialist in Ophthalmology - University of Toronto Canada, Specialist in vitreoretinal disease Fellowship - Brazilian Centre for Eye Surgery.

e: Hudson@nakamura.com



#### Neuro-ophthalmologic diagnoses you do not want to miss

Shlomo Dotan Hadassah-Hebrew University Medical Center, Israel

he presentation will elaborate on five neuroophthalmologic disorders, part of a much longer list, which can potentially cause death or blindness if not diagnosed and treated correctly: (i) Aneurysmal third nerve palsy- the aneurysm is not the most common compressive lesion causing third nerve palsy, but it has the highest mortality if untreated; (ii) Giant Cell Arteritis- is an idiopathic inflammatory vasculitis affecting small to medium size arteries, which can cause blindness, but also cerebral infarction and cardiac ischemia; (iii) Myasthenia Gravis- is an autoimmune disease of the neuromuscular junction, which has both an ocular and generalized form. Myasthenic crisis is a neurologic emergency, which could cause paralysis of the muscles of breathing; (iv) Pituitary apoplexy results from hemorrhagic infarction of the pituitary gland, and causes acute endocrine and neurologic symptoms and; (v) Pseudotumor cerebri or idiopathic intracranial hypertension

is a condition of unknown cause that produces elevated intracranial pressure and papilledema primarily in young obese females, and in about 25% of cases might cause visual dysfunction.

#### Speaker Biography

Dr. Shlomo Dotan is working as the director of the Neuro-Ophthalmology Service at the Hebrew University-Hadassah Medical Center in Jerusalem for more than two decades. He is part of the Editorial Board of the esteemed journal - Neuro-Ophthalmology. His major research project in the past was The Optic Neuritis Treatment Trial Study and The International Optic Nerve Trauma Study which were published in The New England Journal of Medicine and several ophthalmological journals. He is currently involved in several scientific projects investigating therapeutic aspects in MS, NMO and NAION. He is member of the Israel Medical Association, Israel Ophthalmological Society, North American Neuro-Ophthalmology Society, American Academy of Ophthalmology, European Neuro-Ophthalmology Society, and the European Ophthalmological Society. He has been giving lectures worldwide on various ophthalmological and neuroophthalmological topics and has published articles in several prestigious medical journals. He has been part of many esteemed conferences held in Europe, including Israel.

e: docdotan@smile.net.il



#### Importance of contact lense's use on low vision patient

Mylene Leal Matsuhara Institute of Eyes of Belo Horizonte - IOBH, Brazil

Many are the possible benefits from the utilization of contact lenses in the rehabilitation process of low vision patients. Among such benefits, it can be mentioned: decrease of incapacitant photophobia by using filtering lenses with specific colorization, color perception improvement among color blind patients, improving reading efficiency by decreasing nystagmus velocity, qualitative improvement in vision acuity and last, but not least, selfesteem improvement through treatment towards leukemia and visual corneal scares. Possible hardships that may arise from such exam and adaptation can be relieved through careful clinical evaluation, which includes: accurate visual exam with proper acuity charts, visual functions appraisal (i.e.: contrast sensibility, visual field and glare research). It is of great importance to emphasize the use of proof frames with the intention of favoring the utilization of the reminiscent visual field. With this explanation, alongside with the exemplification of clinical cases, we intend to break the paradigm surrounding rejection towards use of contact lenses by low vision patients. Contact lenses shall be remembered as an important asset for the success of visual rehabilitation among low vision patients.

#### Speaker Biography

Mylene Matsuhara is an Ophthalmologist and the Cordinator of the Low Vision Department of IOBH. She was a Teacher of Ophthalmology in the Universities, UNI-BH and Unifenas. She was the Member of the Board of Brazilian Low Vision Society from 2003-2005.

e: mylene.matsuhara@yahoo.com.br



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# Workshop August 21, 2017

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### Andrew G. Lee

Houston Methodist Hospital

Kathy Cao

University of Toronto, Canada



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Neuro-ophthalmic disorders masquerading as benign ophthalmic disease: A wolf in sheep's clothing

Potentially visual threatening or life threatening neuroophthalmic conditions may present with benign appearing or mild ophthalmic signs. The general ophthalmologist should be aware of these presentations because earlier diagnosis and treatment can be critical. Prompt neuroimaging directed to the topographically localizing sign is important in the initial management of many neuro-ophthalmic emergencies. The specific learning objectives of this workshop include:1) To describe specific and potentially dangerous neuroophthalmic diseases that may present as more benign conditions to the general ophthalmologist; 2) To list the key and distinctive features of these conditions that should prompt further evaluation; 3) To describe the differentiating clinical and radiographic features of these conditions so that comprehensive ophthalmologists can avoid missing the diagnosis.

#### **Speakers Biography**

Andrew G. Lee, M.D. was born in New York City but moved to Charleston, West Virginia in 1969. He graduated valedictorian from Charleston Catholic High School and attended UVA (cum laude, BA in biology). He completed medical school at UVA (Alpha Omega Alpha) in 1989 and internship at UVA affiliated hospital in Roanoke, Virginia followed by ophthalmology residency and was chief resident at Baylor College of Medicine. Dr. Lee completed a Fight for Sight research fellowship and clinical neuro-ophthalmology fellowship the Wilmer Eye Institute, Johns Hopkins Hospital, in Baltimore, Maryland in 1994. Following fellowship training, He joined the ophthalmology faculty at Baylor and UT MD Anderson Cancer Center in Houston. In 2000, Dr. Lee joined the faculty at the University of Iowa and was promoted to Full Professor in 2007.

In 2009, He returned to Houston to chair the Blanton Eye Institute at Houston Methodist Hospital and is currently Professor of Ophthalmology, Neurology, and Neurosurgery at *Weill Cornell Medical College*; Adjunct Professor at University of Iowa and Baylor College of Medicine and Texas A and M University; Clinical Professor at the University of Texas Medical Branch, UT MD Anderson Cancer Center, and University of Buffalo, SUNY.

He has served on the Editorial Board of 25 journals including JAMA Ophthalmology, the American (AJO), *Canadian (CJO), and the Japanese Journal of Ophthalmology (JJO), the Asia Pacific Journal of Ophthalmology, the Journal of Neuro-ophthalmology, Survey of Ophthalmology,* and *Eye* and was the founding editor in chief of the Journal of Clinical and Academic Ophthalmology. He is on the board of and will be the President Elect of the North American Neuro-ophthalmology Society (NANOS).

He has published over 400 peer-reviewed publications, 40 book chapters, and nine full textbooks in ophthalmology. He has been the invited speaker at over 400 national and international eye meetings and has given 12 named lectureships. He has received the American Academy of Ophthalmology (AAO) honor award, senior honor award, secretariat award, and the life honor achievement award. Dr. Lee has a special interest in graduate medical education and has received the resident teaching award seven times at five different academic institutions.

**Dr. Kathy Cao** first received her Bachelor's degree with distinction in Biochemistry from Queen's University in 2002. She then graduated with her medical degree from the University of Toronto in 2006, and completed her residency training in Ophthalmology within the Department of Ophthalmology and Vision Sciences in 2011. She also completed her Master of Education at the University of Toronto in 2015.

During her residency training, Dr. Cao was the recipient of several honors, including the Kensington Eye Institute resident award for earning the top performance in cataract surgery, and the ASCRS Foundation Resident Excellence award.

She is a comprehensive ophthalmologist with extensive surgical experience providing culturally-sensitive, state-of-the-art, patient and family-centred care in the Greater Toronto Area at North Toronto Eye Care, KEI, Mount Sinai Hospital, North York General Hospital, and Humber River Hospital. She performs many surgeries both cataract, pterygium and minor lid surgeries. She uses the latest technology and techniques to ensure the best results for every patient. She treats glaucoma, retina and cataract patients. She is trained in manual and Femto Laser assisted cataract surgery.

She also has a passion for medical education. She holds a Masters in Education degree and teaches medical students, family physicians, emergency physicians, ophthalmologists and other healthcare professions locally, nationally and internationally. She holds a number of academic roles including associate Director of Undergraduate Medical Education at the University of Toronto and Medical Education Section Editor for the Canadian Journal of Ophthalmology.

In addition to her passion for ophthalmological surgery and medical education, She is devoted to community service with the goal of preventing blindness. She volunteers with several non-profit organizations including Orbis and Yee Hong Centre for Geriatric Care, and provides public education on eye health through radio and TV interviews. She is currently leading a multilingual eye health patient education video project providing public education on multiple eye diseases in the top 10 languages most commonly spoken in Canada.

She speaks Cantonese and Mandarin. Dr. Cao's specialties:

e: AGLee@houstonmethodist.org



#### The visual therapy photon terapia and bioenergetics

**Ricardo Yamasaki** Otica Yamasaki, Brazil

he visual therapy Photon terapia and Bioenergetics has improved visual acuity, low vision, abliopia, catagara and macular degeneration. Photon platinum is a mass of three metals consisting of aluminum, titanium and platinum, which results a permanent radiation, identical to most beneficial solar radiation. This radiation produces rotating and vibrating movements to our body of water molecules, generating an ongoing process of fragmentation of these molecules, which causes the water (which is 60% of the human body) to circulate best through the cells, promoting thus a constant cellular detoxification process. It follows that the photon radiation-platinum facilitate the adhesion and osmosis of water molecules through the cell membrane. The three-molten metals at 1000°C (reduced to microscopic particles) are incorporated in fabrics or other materials that bring together or glued to the body nodes. By using these products of photon platinum we can permanently get exposed to the sun the time at which solar radiation is most beneficial, so getting our body constantly most beneficial of radiation that a human being can receive: Infrared red.

A photon platinum thus contributes to the improvement of blood circulation, an anti-inflammatory action and exerts a thermal regulating effect, causing the inside temperature of the body tends to remain at 37°C. The bioinfravermelho energy that nanoceramic emits activates molecules of water in the body stimulating clusters (cluster), and facilitating cell osmosis (exchange of substances through the membrane) and thus contributing to a multitude of benefits to the cells and tissues of the body, to improve the overall metabolism. According to the most explicit scientific studies, the effects of platinum photon fiber are potentially beneficial for: blood circulation, blood pressure, oxygenation of muscles and brain, and in improving visual acuity.

#### Speaker Biography

Prof Ricardo Yamasaki, Optometrist and owner at Otica Yamasaki and also worked at OPTICO-OPTOMETRISTA. He Studied at Philadelphia College and at Braz Cubas University - Mogi das Cruzes.

e: otica@yamasaki.com.br



#### A clinical survey of pseudoexfoliation syndrome in Sulaimaniya city- Kurdistan Iraq

**Ali A Taqi** University of Sulaimani, Iraq

**Background:** Pseudoexfoliation syndrome (PXF) is a wellknown clinical condition associated with cataract and the more serious blinding secondary open angle glaucoma that lead silently if unilateral or asymmetrical to irreversible loss of vision as the condition will not be diagnosed and treated early, so our objective is to estimate the size of the problem so we can plan to overcome the serious blinding outcome in the future.

**Study Design & Test Sample**: Descriptive cross-sectional study of partially random sample.

**Aim & Objectives**: To assess the clinical condition frequency and associated complications as cataract and glaucoma (PXG).

**Subjects & Methods:** 252 patients of partially selected elderly Kurds aged 55 years or above those who visited also eye hospital for any reason, were selected and were enrolled, 128 females and 124 male patients in the survey. Full slit lamp examination, visual acuity, refraction, fundoscopy and intraocular pressure measurement by applanation tonometer were done to the patients.

**Results**: Of total 252 patients examined, we report 73 patients (146 eyes) have the syndrome; this represents a frequency or relative prevalence of about 29%. 30 (44%) are females and 43 (56%) are males, so female to male ratio was about 2:3, of the affected 73 patients, 56 (76.7%) patients have the disease in both eyes (112 eyes) and 17 (23%) patients (34 eyes) of them was affected in one eye,

of those affected 73 patients, 60 (82.2%) patient aged 65 years or above, 67 (91.7%) of them were moderate to heavy smokers. 15 patients (20.5 %) have glaucoma and only 3 know that and already on anti-glaucoma therapy, 12 patients (80%) have glaucoma in one eye with variable loss of visual acuity and visual field and discovered for first time. Of the affected 73 patients, 60 patients (82.2%) have visual acuity equal or less than 3/60 at least in one eye of variable causes which regarded as legally blind. All 73 patients have cataract of variable maturity, 30 patients (60 eyes) bilaterally and 43 patients unilaterally (43 eyes), for 3 patient's surgeries were done and the remaining 70 patients have variable cataract at least in one eye and they are candidates for surgery.

**Conclusion**: The syndrome is present in high percentage in elderly population, increasing with age and it is a bilateral disease although asymmetrical, it is associated with significant decrease in visual acuity by cataract formation or by glaucoma or both, treatment must be given early before permanent damage to the optic nerve.

#### Speaker Biography

Ali A Taqi has completed his graduation from Baghdad University Medical College in 1990, he got his Diploma in Ophthalmology in the year 1998 and his Arab Board Fellowship in the year 2002. He works as an Ophthalmologist since 1998 and as Senior Ophthalmologist and a Medical School Teacher since 2005. In the year 2008, he has prepared the SHO education guidelines in Ophthalmology and he did his Postgraduate high Diploma/Master study in the year 2007. He has supervised many of the researches in his field.

e: ali.taqi@univsul.edu.iq





## Gas-permeable scleral contact lens OCT designed-20% autologus serum as therapy for visual rehabilitation and management of chronic ocular surface disease attributable to TEN and SJS.

**Cesar Enoc Sandoval Perez** Ophthalmological Science Institute, Mexico

 $S_{\rm necrolysis}$  - Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are rare but severe and potentially fatal mucocutaneous diseases characterized by widespread epidermal necrosis and mucosal involvement. The two diseases are closely related. These diseases are very severe, with an overall mortality of 20% to 25%. Severe ocular complications not only aggravate the severity of dry eye syndrome, but also threaten for vision. These sightthreatening corneal complications are the continuous trauma caused by friction from the scarred mucosal surfaces of the eyelids. Late ocular complications may significantly impair the overall quality of life of these patients; those who survive these acute diseases are often afflicted with lifelong suffering from severe eye irritation and blindness. Supportive treatments may be insufficient to improve the quality of life of afflicted individuals. Scleral contact lenses are now considered as a standard mode of treatment. They have been reported to increase quality of life, visual acuity and ocular comfort. The first mechanism that family of scleral contact lenses can help is providing a fluid cushion over the cornea by vaulting all through it, this provides an opportunity for the cornea to heal and these family of lenses protect against

rubbing hazards of the keratinized lids and possible trichiasis in patients suffering from severe ocular surface problems. Autologous serum contains the vitamins, several growth factors and fibronectin which are important for corneal and conjunctival integrity. We investigated the efficacy and safety of autologous serum use in a large cohort of Latin-American patients with SJS and TEN 1-3 Sotozono Scale fitted with ScCL designed with the aim of the OCT Visante.

#### Speaker Biography

Enoc Sandoval has received his degree in Optometry from the National Autonomous University of Mexico. He has lectures and workshops on the treatment of Ocular Surface Disease with Scleral Devices and Specialized Contact Lenses. He has a degree in Histopathology, and has done research in the field of Histopathology of Keratoconus, Eye Care Provider for the International Stevens-Johnson Syndrome Foundation and International Xcel Specialty Contacts Consultant. He has worked at the Association to Avoid Blindness in Mexico (laboratory of Ocular Pathology), at the National Institute of Psychiatry "Ramón de La Fuente Muñíz" (Psychoneuroimmunology Laboratory), in The Hospital Angeles del Pedregal (Laboratory of Pathology) and currently he is practicing his private practice at the Hospital Angele's Ophthalmological Sciences Institute focusing his efforts in the area of specialty contact lenses for keratoconus as well as other degenerations and corneal ectasias, patients with post-refractive surgery complications as well as Ocular Surface Disease.

e: admin@oftalmologiadelpedregal.com



#### **Orthokeratology for special cases**

Brunno Dantas Brazilian Society of Ophthalmology, Brazil

Keratoconus is a non-inflammatory, often progressive, corneal disease that makes the cornea thinner and modifies its normal curvature, leading to poor visual acuity. The cornea often acquires anomalous conical shape, from which comes its name. This corneal clinical condition has always been considered as an impediment to the orthokeratology technique. It affects approximately one person in every two thousand people worldwide, causing visual impairment and usually develops up to the age of 40 years. There are some techniques and conducts in the management of keratoconus, among them corneal crosslink, corneal contact lens adaptation and scleral lenses, intracorneal ring implantation, and corneal transplantation. The need for adaptation of corneal or scleral lenses after surgical procedures is relatively common, even if this procedure is minimally invasive, which is not well received

by patients, who hoped to avoid or reduce the need for Use of these lenses. Observing the ability to reshape the cornea with keratoconus, in some initial cases it is possible to make a discreet change in the technique and in the way of adapting the orthokeratology lens, achieving in some cases good visual acuity of these patients without the necessity of using corneal contact lenses or scleral lenses during the day. The application of this variation of the orthokeratology technique allowed, in these selected cases of keratoconus, the improvement of the visual acuity of the patient during the day, making unnecessary the use of rigid contact lenses.

#### Speaker Biography

Brunno Dantas is an ophthalmologist. Professor of special contact lenses of the specialization course in ophthalmology of the Brazilian Society of Ophthalmology.

e: oftalmobd@gmail.com



## Special Session August 22, 2017

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## Shlomo Dotan

Hebrew University of Jerusalem, Israel Neuro-ophthalmic aspects of drug toxicity

he toxic optic neuropathies are typically characterized by subacute or chronic, bilateral, symmetrical and painless loss of vision. Treatment is initiated by recognition and drug withdrawal. Historically, methanol (though not a medication), ethambutol and isoniazid were the first to be recognized as neurotoxic. Later, cyclosporine, a widely used immunosuppressant and other chemotherapeutic agents, like; cisplatin, carboplatin and vincristine were recognized as having neurotoxic adverse reactions. Amiodarone-associated optic neuropathy has been widely discussed in the ophthalmic literature less than half a century ago. It is still controversial whether sildenafil and other phosphodiesterase-5 inhibitors prescribed for erectile dysfunction, cause visual loss by triggering ischemic optic neuropathy. Vigabatrin, used around the world as an anti-epileptic drug, was reported to cause irreversible visual field defects in children. Infliximab, an anti-tissue necrosis-alpha monoclonal antibody currently in use for granulomatous diseases, is also known to cause toxic optic neuritis. A long list of reported drugs is associated with increased intracranial pressure, though not confirmed by controlled studies. Vitamin A derivatives, corticosteroids, tetracyclines, fluoroquinolones, gonadal hormones. indomethacin, lithium and tamoxifen are just a small part

of this list. Abnormalities of eye movements, including nystagmus and inappropriate vestibulo-ocular reflex are reported at toxic levels of neuroactive drugs like: diazepam, methadone, phenytoin, barbiturates and chloral hydrate. Drug-induced disturbances of neuromuscular transmission, occurring at the pre-or-post synaptic levels, include prominent ptosis and ophthalmoparesis along with variable degrees of extremity muscle weakness resembling true myasthenia gravis.

#### **Speaker Biography**

Dr. Shlomo Dotan is working as the director of the Neuro-Ophthalmology Service at the Hebrew University-Hadassah Medical Center in Jerusalem for more than two decades. He is part of the Editorial Board of the esteemed journal - Neuro-Ophthalmology. His major research project in the past was The Optic Neuritis Treatment Trial Study and The International Optic Nerve Trauma Study which were published in The New England Journal of Medicine and several ophthalmological journals. He is currently involved in several scientific projects investigating therapeutic aspects in MS, NMO and NAION. He is member of the Israel Medical Association, Israel Ophthalmological Society, North American Neuro-Ophthalmology Society, American Academy of Ophthalmology. European Neuro-Ophthalmology Society, and the European Ophthalmological Society. He has been giving lectures worldwide on various ophthalmological and neuroophthalmological topics and has published articles in several prestigious medical journals. He has been part of many esteemed conferences held in Europe, including Israel.

e: docdotan@smile.net.il

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## Sergio Ozan

CEPROC, Argentina

UMAT orbital implant was created considering the good J qualities of previous implants and improving their flaws. To start the fabrication I looked for material that was easy to get in the market and with low cost. JUMAT is made with hypoallergenic high-density polymethylmethacrylate. It is made in different sizes, from 10 mm to 22 mm. This is really helpful for the surgeon as he counts with different sizes at the operation room and can select on site the most suitable one. This is essential for the successful adaptation of the implant. JUMAT Orbital implant has multiple perforations of different diameters, being the principal one, the one that marks the implant axis and crosses it completely. This perforation has larger diameter in the back area and smaller in the front one. All other perforations connect with the principal one and interconnect among themselves too. This system of perforations is essential to foster an excellent vascularization. Within ten days of surgery the patient is ready to start with the testing for the adaptation of a ocular prosthesis. As from 2010 to present time, 235 JUMAT implants have been implanted with only two expulsions reported. These cases were studied in detail. It was observed

that both cases involved children with retinoblastoma. They were enucleated and were implanted with JUMAT. These two children were derived to Garrahan Hospital in Buenos Aires, leading Pediatric school hospital in Argentina. They were under radiotherapy and chemotherapy. These two processes avoided tissue vascularization by necropsy, which determined the expulsion of the implant. JUMAT stands out for the material made of, low cost, various implant dimensions, surgeon possibility to choose exact measure during operation and short time of vascularization and ocular prosthesis adaptation.

#### **Speaker Biography**

Optician, University of Buenos Aires, Argentina. Specialist in Contact Lenses. Specialist and manufacturer of ocular prosthesis. Scientific adviser for ocular prosthesis in APO (Asociación Profesional de Optómetras in Argentina). Precursor and creator of multiperforated orbital implant, JUMAT. Precursor and creator of expander orbit asmotic hydrogel filling for microophthalmia. Developer of one-hour customized ocular prosthesis method, unique in Latinamerica. Precursor and creator of the first prosthetic scleral lens. Precursor and developer of ocular prosthesis with magnifying glass for microophthalmia. Director of CEPROC (Centro de Prótesis Oculares y Contactología especializada), Mendoza, Argentina.

e: sergioozan@gmail.com



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#### Scleral contact lens: Assessment of the changes

Luiz Formentin Hospital Santo Amaro, USA

The scleral lens represents fundamental device to the improvement of visual acuity of patients with irregular corneas and/or to bring mitigation of their suffering in cases of dry eye. Perfect fitting in the ocular ball is an important point so that the patient can use it safe and comfortably. We constructed our study based on zens lens- escleral lens, factored in Brazil by Solótica Industria Óptica under the license of Alden Optical- Lancaster- NY, USA. The target is to analyze adjustments done to adapt lens in patients. We also compared the assessments between slit lamp and optical coherence tomography. The adjusts were more frequently needed until now and are sagittal deep, toric periphery and front toric. Other less needed adjusts were changes in the basic curve to regulate the vault in medium periphery of the cornea and micro vault fitting in steep topography.

#### **Speaker Biography**

Has completed his Graduation in Medicine in University of the Lusíada and Specialist degree by the Brazilian Council of Ophthalmology/Brazilian Medical Association. He is an Ophthalmologist at the eye clinic (Santos-SP) and the Director of the Ophthalmology Therapy and Diagnosis Center (Santos-SP), He is the Head of the Ophthalmology Department of the Hospital Santo Amaro (Guarujá-SP) and Contact Lens and Refraction Department of Ophthalmology and Visual Sciences of UNIFESP. He is the Coordinator of the Medical Residency Committee of Santo Amaro-Guarujá Hospital, Member of the Ethics Committee and former President of the Ophthalmology department of there. Association of Physicians of Santos, current Paulista Association of Medicine-Santos. His main areas and performance include cataract surgery, refractive surgery, contact lenses and glaucoma. He is researching on adaptation of scleral lenses.

e: formentinluiz@gmail.com.br



## Managing corneal astigmatism using iris registration-guided, femtosecond-laser assisted arcuate incisions performed during cataract surgery

Denise M Visco Eyes of York Cataract and Laser Center, USA

**Statement of the Problem**: Arcuate incisions (AI) are well established surgical procedure for the correction of residual astigmatism with cataract surgery. The advent of femtosecond laser in the field of corneal microsurgery has improved the safety, predictability and reproducibility of Als. Purpose of the current study is to evaluate the outcomes of iris registration-guided, femtosecond laser-assisted arcuate incisions performed with cataract surgery in eyes with pre-existing astigmatism.

**Methodology & Theoretical Orientation**: This retrospective non-comparative study included 279 eyes of 203 patients with cataract and pre-existing astigmatism ranging from 0.50 D to 1.91 D. All eyes underwent LENSAR® femtosecond laser-assisted cataract surgery and Als using StreamlineTM Iris registration and wireless transfer of the preoperative undilated iris image to the laser system. The incision parameters were automatically generated by LENSAR®'s Arcuate Incision Planning software based on surgeon preference and surgically induced astigmatism. Cyclorotation was automatically compensated by adjusting incision placement. The primary outcome measure was residual astigmatism at two weeks and 3 months after surgery. **Findings:** At postoperative 2 weeks, the mean residual sphere, cylinder and MRSE were -0.17 D, -0.09 D and -0.13 D respectively. In particular, 88.2% eyes had  $\leq$  0.25 D, 94.6% eyes had  $\leq$  0.5 D and 99.3% eyes had  $\leq$  0.75 D of residual astigmatism postoperatively. At postoperative 3 months, the mean residual sphere, cylinder and MRSE were -0.20, 0.17 and -0.11D respectively. Residual astigmatism was  $\leq$  0.25 D in 74.8% eyes,  $\leq$  0.5 D in 94.1% eyes and  $\leq$  0.75 D in 99.2% eyes at 3 months. No complications were observed.

**Conclusion & Significance**: The LENSAR<sup>®</sup> arcuate incision planning software using iris registration yielded safe and effective outcomes in cataract patients with low to moderate astigmatism.

#### **Speaker Biography**

Denise M Visco is an award winning Ocular Surgeon and Founder of Eyes of York. She is the current Secretary/Treasurer for the American College of Eye Surgeons and has served as President of the American Board of Eye Surgery. She is an alumnus of University of Delaware, Thomas Jefferson University and Penn State, where she completed her Ophthalmology training in 1995. She practices a comprehensive array of eye services within the Eyes of York practice which include refractive cataract surgery, presbyopic lens exchange surgery, corneal inlays, LASIK and PRK surgery. She also provides glaucoma management with medical treatment and MIGS when appropriate. She is noted as the first Surgeon in York to provide patients with the quality of a free standing laser center for laser vision correction and surgical center specializing in eyes.

e: dvisco@eyesofyork.com



## The new treatments for Age Related Macular Degeneration: The role of antiangiogenic agents and evolution and their safety in the modern world

Hudson de Carvalho Nakamura Goias Bank of Eyes Foundation, Brazil

ge related macular degeneration is a common cause As blindness, evident with many clinical distinct signs, such as sub retinal neovascular membrane (SRNM), causing metamorphosis and visual acuity loss; there are several treatment options, to reduce its devastating visual effects. The treatment of SRNM in the past, was solely relied upon laser photocoagulation of the membrane, reducing the risks of visual loss when treated without much delay. On the other hand, if the membrane treated was located in the foveal area, the outcome was bad despite treatment, because most of the times the photoreceptors and other retina cells were damaged in the macular area. Laser used to be applied in the macula, and despite the reason was to halt the process of membrane evolution, the patient lost visual acuity immediately after the foveal laser, but MPS (Macular Photocoagulation Study) studies realised that within a couple of years the contrast sensitivity got better rather if the lesion was not treated. Of course nowadays we do not laser the fovea. Other recent studies that come on the way until today show how the involvement of pharmacology and the numerous labs may contribute to the success of the treatment. Treatmens such as PDT (Photodynamic Therapy) with the use of verteporfin (visudyne), which was used together with the PDT treatment protocol for stimulating the action of the drug through this non thermal laser pathway acted shrinking the size and inhibiting the spreading and growth of the membrane; another option applied was TTT (Transpupillary Thermotherapy), with non thermal laser, played a role towards the treatment of the membrane; last but not least on the list was surgical treatment was attempted, with the use of special cannulas underneath the retina to actually remove the subretinal membranes; macular translocation, withdrawing the membrane area from the macular center, rotating good retina do override the retinal pigment epithelium, but bad results and outcomes contributed to the discontinuation of these procedures. Clinical research on pharmacology and the ARMD pathogenesis came up with the targeted cause of these lesions that is VEGF (vascular

endothelial growth factor), responsible for the membrane formation and the process of angiogenesis. Development of pharmacological treatment for the membrane came to the most evolving drugs used in ophthalmology today, ranging from pegaptanib sodium (Macugen), FDA approved, to the off label bevacizumab (Avastin), largely employed. Ranibizumab (Lucentis) is largely also used for the treatment of the disease, and Aflibercept (Eyelid) was approved for several diseases, many drugs also included in protocols for diseases different from ARMD. Corticosteroids were far more developed these days for the treatment of ARMD, to mention triamcinolone acetate, Ozurdex (dexametasone implant), and Illuvien (fluocinolone acetone) these last two mentioned drugs being delivered as intravitreal implant different from the others mentioned, delivered as injections. Other drugs are in the way of development. Several studies concerning the use of intraocular anti-VEGF (anti-vascular endothelial growth factor) drugs proved to show great results and membrane shrinking to the point of complete resolution. Usually many of those studies show that after one year duration treatment, and some protocols advise monthly injections, the treatment could be performed as necessary, with larger intervals between sessions. Other drugs are still under investigation and development, but we already have had good results with the approved worldwide medication for the moment.

#### **Speaker Biography**

Hudson Nakamura is a Medical Specialist in Ophthalmology and specialized in Retina and Vitreous. Completed School of Medicine at the Federal University of Goiás – UFG and residency from the Base Hospital of the Federal District - Brasília - DF. Presently member of American Academy of Ophthalmology, Brazilian Council of Ophthalmology, Canadian Society of Ophthalmology and also the member of most prestigious society ARVO - The Association for Research in Vision and Ophthalmology United States. Currently working as a professor in department of Retina and Vitreous Course of Medical Residency in Ophthalmology at the Bank of Goias Eye Foundation. Is also working as Specialist in vitreoretinal disease Fellowship - University of Toronto Canada, Specialist in Ophthalmology - University of Toronto Canada, Specialist in vitreoretinal disease Fellowship - Brazilian Center for Eye Surgery.

e: Hudson@nakamura.com



#### Traumatic hyphema frequency and management evaluation: A retrospective study

**Ali A Taqi** University of Sulaimani, Iraq

raumatic hyphema is important as it is common following blunt trauma and is increasing nowadays. Most results from unnecessary eye injuries, especially in children, which are largely preventable. The aim of the study is to evaluate the final unaided visual acuity and the intraocular pressure level on discharge of blunt traumatic hyphema management, and to compare between grade 1 hyphema (low risk, hyphema filling less than half of the anterior chamber) and grade 2 hyphema (high risk, hyphema filling more than half of the anterior chamber) or hyphema associated with a high intraocular pressure regarding the final visual outcome on discharge. Statistical analysis for frequencies was done using the (Epi Info) program which is public domain statistical software for epidemiology developed by Centers of Disease Control and Prevention (CDC) in Atlanta, Georgia (USA). Other results were analyzed using statistical package for social science (SPSS) software (version 13). The design of the study was a retrospective (descriptive) survey of all blunt traumatic hyphema patients admitted in Shaheed Doctor Aso Eye Hospital in Sulaimaniya City, Kurdistan Region of Iraq during the period of January 1, 2008 to December 31, 2008. During the period of the study the medical records of 54 patients, who were admitted due to blunt traumatic hyphema, were retrieved and studied thoroughly regarding their examination notes (unaided visual acuity, level of intraocular pressure and slit-lamp examination) and management was done (medical and surgical) through their admission days in hospital.

#### Speaker Biography

Ali A Taqi has completed his graduation from Baghdad University Medical College in 1990, completed his Diploma in Ophthalmology in the year 1998 and his Arab Board Fellowship in the year 2002. He works as an Ophthalmologist since 1998, Senior Ophthalmologist and a Medical School Teacher since 2005. In the year 2008, he prepared the SHO education guidelines in Ophthalmology and he did his Post-graduate high diploma/Master study in the year 2007. He has supervised many of the researches in his field and had different subject's lectures and many seminars.

e: ali.taqi@univsul.edu.iq



## Intraindividual comparison of nepafenac 0.3% for the prevention of macular edema after phacoemulsification: Prospective placebo-controlled randomized study

**Clézio Soares Morato** University Goiania Goias, Brazil

**Purpose:** To compare the anti-inflammatory efficacy of nepafenac 0.3% eye drops for prophylaxis of macular edema (ME) after small-incision cataract extraction.

**Design:** Randomized prospective intraindividual comparative study.

**Methods:** Both eyes of patients with bilateral age-related cataract were evaluated. Each patient was assigned randomly to receive a nepafenac 0.3% drops (Nevanac Uno, Alcon) in one eye (Nepafenac Group: Case) and a topical artificial tear substitute in the fellow eye (Placebo Group: Control). The primary outcome measure was the change in spectral-domain optical coherence tomography (SD-OCT) mean central subfield thickness (CST,  $\mu$ m) and total macular volume (TMV, mm3) at 1 week, 5 and 12 weeks postoperatively compared between groups. The percentage of patients in both groups who demonstrated macular edema ( $\geq$ 30% increase from preoperative baseline in CST), and the best-corrected distance visual acuity (CDVA) within 5 and 12 weeks after cataract surgery were also compared between groups.

**Results:** Two hundred and six eyes of 103 patients were included in this study. In all retinal thickness measurements, a significant increase in both groups was detected starting from the postoperative first week until 12 weeks. At 5 weeks, there was a statistically significant difference in

CST and TMV between the nepafenac and control group (P=0.024 and P=0.015, respectively). At the 5th postoperative week, none of eyes in the nepafenac group and 4 (3.88%) eyes of the control group showed macula edema, Nonsteroidal antiinflammatory!2 highlighting a trend toward greater incidence in the control group. The betweengroup differences in visual outcomes were not statistically significant.

**Conclusion:** Used prophylactically after uneventful cataract surgery, nepafenac 0.3% was efficacious in reducing macular thickness compared to placebo after 5 weeks postoperatively, without difference in final visual acuity.

**Keywords:** Macular edema; cystoid macular edema; nonsteroidal anti-inflammatory agent; optical coherence tomography; phacoemulsification; nepafenac.

#### **Speaker Biography**

Clézio Soares Morato is a Medical Specialist in Ophthalmology. I was graduated from Ciências Médicas de Minas Gerais University – FCMMG (in Belo Horizonte, Minas Gerais, Brazil) and his Residency at the Base Hospital of the Federal District - Brasília – DF (Brazil).

Presently, I am member of the Brazilian Council of Ophthalmology. I am currently doing a Fellowship in Corneal and external disease section of the Ophthalmology Reference Centre (CEROF) in Goiania, Goiás, Brazil

e: clezio\_soares@yahoo.com.br



#### Refractory use of intrastromal rings in penetrating keratoplasty

Giuliano Pires Hospital Oftalmologico of Sorocaba, Brazil

ntrascleral ring implants appeared in the 1950s with the aim of altering the curvature of the cornea promoting the correction of refractive errors. More recently, corneal rings have become more important in ophthalmology for the remodeling of irregular corneas, in which the excimer laser would be contraindicated. Corneal transplants have several indications and currently have a wide range of options depending on the underlying pathology. The postoperative management of keratoplasty, especially regarding refractive errors, can be very difficult. Some situations, such as anisometropia and intolerance of contact lenses, require surgical procedures for visual rehabilitation. Among the surgical options have, the procedures with the use of excimer laser is advisable, when the biomechanical conditions of the cornea allow and in specific cases of contraindication the possibility of using the intrastromal ring implants, or even implants of intraocular lenses (phakic or pseudophakic). In 2011, the studies were started using large arc length segments with very positive results. They have numerous advantages among them, the maintenance of every implant in a single plane allowing greater regularity of the surface of the cornea and with the advent of femtosecond laser the implant of these segments became possible. The option of a ring implant is based on the fact that the procedure has the possibility of being reversible without corneal consumption. Keratoplasty is aimed at obtaining the visual rehabilitation of the patients, so the simple fact of obtaining a good transparency of the corneal button can not be considered as success, therefore the final visual acuity should always give the final word on the result.

#### **Speaker Biography**

Giuliano Pires is doing his fellowship in cornea, external diseases and refractive surgery at the Hospital Oftalmologico de Sorocaba, Coordinator of the cornea sector of CLDO/ CCO, Preceptor of the specialization course in Ophthalmology at the Cearense Institute of Ophthalmology

e: giuliano\_pires@hotmail.com



#### Prevention of visual risks and primary care at work Visual Occupational Health

Martha Patricia Canas La Salle University, Colombia

t is important to understand that in order to be able to develop any trade or work with maximum performance and to have optimal production, not only should there be compliance with labor laws that may exist in any country or region, companies and workers must go further and take into account the health of the workers and be aware of unnecessary risks that may cause temporary or permanent disability, becoming risk factors of public health, through the development of processes and plans that allow workers to be involved in caring for their health, especially visual health, the use of workshops and continuous monitoring of the visual health of their workers, good use of preventive mechanisms for visual care, and follow-up of the guidelines given by visual professionals at the time of the examinations, be it at the time of entry work, or in periodic examinations, how and in what way can workers learn the risks of each job so that they can be protected before irreparable damage occurs and what strategies can be used by vision professionals to help from our private firms so that patients can carry out their work in the most appropriate way, not only in the diagnosis of any visual problem and its solution but also how we can provide a practical and real guide so that patients can perform their work and trade in an appropriate way.

e: marthapcanas@gmail.com



#### Study design: Experimental prospective interventional study

**Hala Gabr** Egypt

**Purpose:** to study the ability of mesenchymal cells derived from the bone marrow to help healing of corneal injuries in rabbits

**Methodology:** Twenty rabbits were used in this study. The corneal surface was destroyed either mechanically or chemically. Mesenchymal cells derived from the bone marrow were carried on an amniotic membrane and transplanted to the corneal surface either after being co cultured with cells derived from the Limbus (group A rabbits) or directly without previous co-culture (group B rabbits). Flow cytometry and clonogenic assay were used to test trans-differentiation of mesenchymal cells into limbal lineage. The effect of the transplanted cells on the corneal surface was assessed clinically, microscopically, and by immunohistochemistry.

**Results:** Flow cytometry showed that 79±8% of co-cultured cells had acquired limbal lineage criteria, of which 59±5%

presented limbal stem cell criteria. A clinical improvement was observed in 64% of the injured eyes with a significantly better improvement in group A compared to group B animals. Involvement of the inoculated cells in the regenerative process was proved by light microscopic demonstration of tagged cells and by dual immunohistochemical staining showing simultaneous mesenchymal and epithelial staining of the implanted cells.

**Conclusion:** Transplantation of mesenchymal cells derived from rabbits bone marrow could improve their injured ocular surface. Those cells previously co-cultured with limbal cells showed a higher ability of promoting corneal healing.

**Key words:** stem cells, limbal stem cell transplantation, ocular surface disorders, co-culture, mesenchymal cell transdifferentiation.

e: halagabr@yahoo.com



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# Workshop August 22, 2017

# Eye 2017



# 3rd International Conference on EYE AND VISION

3<sup>rd</sup> International Conference on

# EYE AND VISION August 21-23, 2017 | Toronto, Canada



## Javier Yugar

Laser Center And Eyepiece Diagnosis, Brazil

## Ultrasound of the eye has become an integral and very important part of diagnosis in modern ophthalmology

Ultrasound of the eye has become an integral and very important part of diagnosis in modern ophthalmology. Standardized echography requires appropriate examination techniques for more reliable results. In this workshop, we emphasize on techniques that have been found to be of great value for a more precise diagnosis. We as well show clinical cases with diagrams that help to understand a treedimensional approach.

#### Speaker Biography

Javier Yugar has completed his Medical degree from Universidad Nacional de San Agustin - Arequipa\_Peru, Residence in Ophthalmology at Instituto Hilton Rocha – Brazil. He got training in Ecography under the supervision of Ronald Green at Doheny Eye Institute- Los Angeles California. He is the Author of the book *Ultrasound of the Eye - A Didactic Approach* (third edition with a chapter in Ultrasound of the Orbit). He has worked as a Lecturer in Brazil, Peru, Paraguay, Ecuador, Mexico, USA, France and Portugal. He is the Director of Residence in Ophthalmology at Hospital de Olhos Ruy Cunha - Bahia. He is the Director of the Ultrasound Department of CLDO, Fortaleza-Ceara- Brazil.

e: jyugar1@hotmail.com



# Young Research Forum August 23, 2017

# Eye 2017



# 3rd International Conference on EYE AND VISION



## Refractive errors, visual impairment and utilization of spectacles among primary school children in Onitsha, Anambra State, Nigeria

Ezinne Ngozika Esther Madonna University Nigeria

This study aims to estimate the prevalence of refractive error and visual impairment, and the use of corrective spectacles among primary school children in Onitsha North and South Local Government areas, Anambra State, Nigeria. The refractive error study in children (RESC) protocol developed by the World Health Organization (WHO) will be used to determine the prevalence of refractive error and visual impairment in primary school children in Onitsha Anambra State, Nigeria. This study will also determine the use of corrective spectacles in this group by using a questionnaire. The findings from this study will serve as a baseline data to plan, implement and monitor refractive error amelioration project and in subsequent evaluation of refractive error programs in Anambra state, Nigeria.

#### **Speaker Biography**

Ezinne Ngozika Esther is a Nigerian. Studied optometry at Abia State University Uturu Nigeria and obtained the Doctor of Optometry Degree in 2006. She is very Passionate about Optometry Profession and has worked with Orbis International and Brien Holden vision Institute. She is interested in Pediatric optometry and Low vision. She has worked as a lecturer at the University of Gondar Ethiopia, Mzuzu University Malawi and Madonna University Nigeria. Currently, she is a postgraduate student of University of Kwa Zulu -Natal Durban South Africa. She has eight Research Publications, has 5 siblings and likes reading, watching television and listening to music.

e: ezinne.ngozi@gmail.com



## Non-aqueous gel based carrier system for the ocular delivery of aceclofenac with enhanced efficacy, safety and stability

Supriya Verma, Bhupinder Singh and O P Katare Punjab University, India

**Aim:** The study was intended to develop a non-aqueous gel based carrier system of drug aceclofenac (ACE) for its effective ocular delivery at the inflammatory sites.

**Summary of the Problem:** In the treatment of inflammatory conditions prevailing in eye, multiple strategies have been employed like steroids and non-steroidal anti-inflammatory agents. But their use is restricted due to their drawbacks like low drug permeation and retention, low drug availability, local irritation and stinging effect at the affected site in the eye.

**Methodology & Theoretical Orientation:** The chosen drug (ACE) was entrapped in a proniosomal system, which consists of span 60, cholesterol, maltodextrin and non-aqueous gel as the secondary vehicle.

**Observations:** The particle size, polydispersity index (PDI) and zeta potential of the prepared system were obtained as 369.6 nm, 0.513 and -25.3 mV, respectively. FTIR studies proved the useful interaction of the drug with the bilayers of the proniosomal system. The prepared gel system was a shear-thinning in nature with the yield value of 12.31 and viscosity of 173.29. Anti-inflammatory and analgesic animal models revealed the supremacy of the

prepared formulations over the marketed formulations with increased ocular bioavailability of the drug at the site of eye inflammation. Ocular irritancy studies performed on rabbit eye model proved the safety and non-irritancy of the prepared formulation. Moreover, the formulation was found stable for the period of six months.

**Conclusion:** The current findings provide the lead for the development of an effective ocular formulation of ACE with substantial stability in the proniosomal system.

#### **Speaker Biography**

Supriya Verma has been engaged in experimental laboratory work that includes formulation development, *in vitro* characterization and *in vivo* evaluation of the novel drug delivery based formulations *i.e.*, liposomes, niosomes, solid lipid nanoparticles, nanostructured lipid carriers, etc. Her area of research is based on systematic design and development of nanostructured delivery system of Aceclofenac and Risedronate. In the last four years of research experience, she has got wonderful exposure on topical and oral drug delivery systems in an industry (Panacea Biotech, Lalru) as well as in an academic institute (University Institute of Pharmaceutical Sciences, Panjab University, Chandigarh). She has not only involved in research but also undertaking teaching of Undergraduate and Postgraduate classes. Moreover, she is having collaboration with medical institutes *i.e.*, PGIMER, Chandigarh and AIIMS, New Delhi for the assistance of clinical studies over there. Also she is writing research articles and book chapters related to her professional domain. She has attended various National as well as last four years.

e: supriya\_punjab@yahoo.com



#### **Rare Lid Mass**

Wesam M Sham and Osama E Shalaby Tanta University, Egypt

59 years old Caucasian man was presented at our hospital with painless slowly growing disfiguring mass on his left lower eyelid of 1- year duration. On examination, a Solitary, well defined, firm, mobile nodule measured 12 mm × 10 mm with brownish & skin colored areas and crusted surface was identified on the middle third of the left lower eyelid (Figure 1). The nodule wasn't tender and didn't bleed on touch with normal surrounding skin and no distortion of the lid margin. Local lymph nodes weren't enlarged and there were no other skin lesions elsewhere. The lesion was thought not to be malignant due to the following: Normal smooth eyelid contour, normal surrounding skin, no lash loss, smooth non beaded border, no surface telangiectasia and no bleeding on touch, so mass resection without wide safety margin was planned. Excisional biopsy and histopathological examination were performed. Sections revealed large expansile masses of squamous epithelial cells with well-defined borders, connected to the epidermis with multiple horn cysts and squamous eddies. The resection

margins were free of tumor tissue and no malignancy was detected (Figure 2). Based on these findings, a diagnosis of eccrine poroma was made. Follow up was done and no local recurrence was detected through one year (Figure 3). Eccrine poromas are fairly common, benign, slow-growing solitary adnexal tumors originating from the intraepidermal portion of the eccrine sweat duct. The most common sites are palm & sole due to density of eccrine glands. Eyelid poroma, as our case, is extremely rare. To our knowledge, only 4 cases have been reported previously and our case is supposed to be the 5th one. Clinically, poromas can be mistaken for basal or squamous cell carcinoma, hemangioma, cysts or warts. Definitive treatment is complete surgical excision with clear margins to avoid local recurrence.

#### Speaker Biography

We sam Shams is an assistant lecturer of ophthalmology,  $2^{\rm nd}$  year fellowship at Tanta medical school, Egypt.

e: wesam.shams@med.tanta.edu.eg



# Video Presentations August 23, 2017

# Eye 2017



# 3rd International Conference on EYE AND VISION



#### Phthiriasis palpebrarum: A case report

José G Carneiro Unichristus University, Brazil

2-year-old patient with intense bilateral ocular pruritus for more than 6 months sought medical assistance, where the examination revealed a bilateral  $\frac{3}{4}$  cataract and a ciliary infestation of Phithirus pubis, concluding the Phthiriasis palpebrarum diagnosis. Phthiriasis is a disease caused by an infestation of the ectoparasite Phithirus pubis on the genital region, frequently appearing on adults with bad hygienic habits and sexual contacts, caused by a genitalfacial transmission of the aforementioned insect. However, the disease is a rare occurrence of blepharitis in adults, diagnosed by the Dermatologist. Furthermore, the disease is most common on eyebrows and eyelashes, and the most frequent way of transmission is mother-child. The diagnosis if this disease is done by the visualization of the louse, distinguished from the Pediculus humanus corporis by its larger abdomen, as well as stronger second and third pairs of

legs. The patient was treated with REVECTINA® (Ivermectin 6 mg) Oral, 2 pills in a single dose followed by the resolution of the symptoms, and after the return of the patient a week later, it was observed by the exam the absence of ectoparasites and the presence of empty cocoons. The manual extraction of the cocoons was carried out afterwards. On the return of the patient two weeks later, symptoms did not occur and new ectoparasites or cocoons were not observed. After the resolution of the Phthiriasis palpebrarum, the patient was sent to facetectomy.

#### **Speaker Biography**

José G Carneiro is an Ophthalmologist Medical Doctor graduated from the Federal University of Ceará, entitled specialist by the Brazilian Council of Ophthalmology and by the Brazilian Medical Association. He currently works on the fields of external diseases, contact lens, ocular prosthesis and glaucoma treatment.

e: drgildivan@gmail.com



#### Proposed practical guide for the treatment of keratoconus

Hector Hugo Paez Villa Santo Tomas University, Colombia

**Introduction:** The professional practice of the author for over 10 years in the study, analysis, measurement and calculation of contact lenses for different corneal ecstasies; Has carried out an effective, agile and safe treatment guide or protocol for the optometric and contactlogical management of keratoconus.

**Objective:** Provide visual health professionals specifically with advanced contact lenses, a practical guide to successfully adapting and formulating contact lenses for different corneal ecstasies.

**Results And Conclusions:** The increasing demand of patients diagnosed with keratoconus, the diagnostic advances and a number of therapeutic alternatives offered by the current contactology. They cannot be far from an effective, accurate and conclusive clinical treatment. This guide from

the complex to the practical will lead the professional in visual health to have sufficient capacity to determine the therapeutic plan in each case and general thus provide the possibility for the ectasic patient to enjoy the true sensation of seeing well, clear and accurate.

#### **Speaker Biography**

Hector Hugo Paez Villa. From Colombia. . Professional in Optometry of the University of Salle Bogota. With Diploma in Primary Eye Care of the Andean Area University Foundation Medellin. I have just received my degree of Specialist in Previous Segment and Contact Lenses at Universidad Santo Tomas Bucaramanga. I am a member of the College of Optometry at the Colombian Federation of Optometrists Col FEDOPTO Medellin. Member of The Vision Care Institute Bogota, of the Brazilian Institute for Training and Research in Contact Lenses and the Scleral Lens Education Society.

I practice my professional practice in the area of advanced contactology in the city of Medellín and I am the founder of the Latin American group; Let's talk about Contact Lenses.

e: contactovissual@gmail.com