

Joint Event on



19<sup>th</sup> International Conference on

# OCULAR PHARMACOLOGY AND EYE CARE

&

World Congress on

# PUBLIC HEALTH, EPIDEMIOLOGY AND NUTRITION

September 03-04, 2018 | Lisbon, Portugal

# DAY 1

Scientific Tracks & Abstracts

# Day 1

# SESSIONS

September 03, 2018

Ocular Diagnosis and Ophthalmic Imaging | Ocular Diseases | Retinal Pharmacology | Public Health  
Disaster Management and Public Health | Community Health | Environmental Health

## Session Introduction

### Session Chair

**Engin K N**  
Saglik University, Turkey

- Title: Eye-to-visual-pathway integrity of glaucomatous neurodegeneration**  
Engin K N, Saglik University, Turkey
- Title: Disaster management plan call for health professionals**  
Renato Nunes, Central Hospital University of Lisbon Centre, Portugal
- Title: Is clinical course of optic neuropathy associated with oxidative damage and dynamics of antioxidant response?**  
Engin K N, Saglik University, Turkey
- Title: The power of contrast sensitivity and nutritional intervention in primary eye care?**  
Mark Roark, Allisonville Eye Care Center, USA
- Title: Public health in disaster management - the occupational therapy perspective**  
Elisabete Roldao, Health School of the Polytechnic Institute of Leiria, Portugal
- Title: Inhibition of mTOR pathway to prevent photoreceptor cell damage**  
Umur Kayabasi, Uskudar University, Turkey
- Title: Co-relation between the peripapillary microvasculature and ocular pulse amplitude in glaucomatous optic neuropathy**  
Amila Sampath Chandrasekera, Vision Care Optical Services PVT Ltd, Sri Lanka
- Title: The double burden of malnutrition in refuge settlements**  
Rebecca Nerima, Vitamin Angels, Uganda
- Title: Macula hole post blunt ophthalmic trauma in a pediatric patient**  
Anna Praidou, General Hospital of Thessaloniki, Greece
- Title: Association of alcohol consumption and intraocular pressure in men and women: The 5th Korea National Health and Nutritional Examination Survey 2010-2012**  
Young Cheol Yoo, Hallym University College of Medicine, South Korea

**EYE-TO-VISUAL-PATHWAY INTEGRITY OF  
GLAUCOMATOUS NEURODEGENERATION****Engin K N**

Saglik University, Turkey

**G**laucoma represents a group of neurodegenerative diseases characterized by structural damage to the optic nerve and the slow, progressive death of retinal ganglion cells. On the other hand, impacts of glaucoma on the optic nerve (ON), corpus geniculatum laterale (CGL) and visual cortex became increasingly evident. Initial studies conducted with conventional magnetic resonance imaging (MRI) and occipital proton MR spectroscopy. The techniques that the first functional and structural findings have been obtained are functional MRI (fMRI) and diffusion-tensor MRI (DTI), respectively. fMRI detects increased neuronal activity via changes in blood oxygenation, DTI is based on the movement principle of fluids in a plane connected to the nerve. In consecutive studies from 2006 to 2014, we aimed to evaluate the structural and functional extent of glaucomatous neurodegeneration in an attempt to develop techniques feasible for routine clinical application. In previous studies, we observed statistically significant correlation of glaucomatous neurodegeneration between eye and visual pathways with our original techniques developed with 1,5T MRI. ON, CGL damage and cortical hypofunction were shown with DTI and fMRI, respectively. Our last cross-sectional DTI study, which is yet to be published, included 130 eyes with glaucoma. Statistically significant correlations were found between ganglion cell complex and apparent diffusion coefficient,  $\lambda_1$ ,  $\lambda$  of optic nerves. Strategies independent from IOP, concerning the area beyond the optic nerve head, are needed in the evaluation and treatment of glaucoma. As our studies showed, clinical instruments that are largely in use are also adequate for clinical trials to reveal the glaucoma-brain connection; however, more sophisticated techniques are being developed to illuminate that relation further. A more comprehensive understanding of retrobulbar glaucomatous damage will enable us to determine more efficient diagnosis, follow-up and treatment strategies and facilitate to answer important questions which remain unknown about this disease.

**BIOGRAPHY**

Engin K N is an Ophthalmologist and PhD holder in Biochemistry. He has a strong focus on optic nerve and his areas of interest are glaucomatous neurodegeneration, oxidative stress, neuroprotection and vitamin E. Currently, his review article Alpha Tocopherol: Looking beyond an antioxidant has been cited over 90 times. Along with other academic activities, he is author of 39 publications, seven special lectures, more than 70 presentations, and he received six awards. He is Member of ARVO, EVER, Society of Free Radicals and Antioxidants Research (Turkey). Since 2005, he has been serving as an active Member of glaucoma division of Turkish Ophthalmology Society.

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Note:

## DISASTER MANAGEMENT PLAN CALL FOR HEALTH PROFESSIONALS

### Renato Nunes

Central Hospital University of Lisbon Centre, Portugal

The Central Hospital University of Lisbon Centre aggregates 6 Hospital facilities scattered through the city of Lisbon. Either an Internal Emergency, like a small, missing patient, elevator malfunction, we need to notify several people at the same time. Using a specific software we develop an application that lowers the notification time from 7 minutes time to 1 minute. However the Hospital develop a plan to respond a huge Disaster that allows to notify and call about 200 healthcare professionals in 30 minutes time. In our talk we going the present the theoretical framework and also present the software and the results from Internal Emergency as well simulations made from a plane crash disaster management. We will discuss further applications to Public Health Monitoring and Prevention.

## BIOGRAPHY

Renato Nunes has completed his master of Organizational Behavior from Lisbon University, and was a PhD student at Seville University Spain. At the present moment is at HRD. He is to develop organizational development from HR point of view. He has over 100 talks and several published papers. He had belonging to review paper board from Asiedad y estres a peer review Journal. In 2009 together with Mercedes Bilbao were distinguished with the Public Sector Award for Good Practices for the organizational process improvement with Connexall's software.

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## IS CLINICAL COURSE OF OPTIC NEUROPATHY ASSOCIATED WITH OXIDATIVE DAMAGE AND DYNAMICS OF ANTIOXIDANT RESPONSE?

**Engin K N**

Saglik University, Turkey

Optic neuropathy is recognized one of the most frequent causes of vision loss, which 85% of them are in nonarterial anterior ischemic optic neuropathy (NAION) form. Glaucoma –another major form of optic neuropathy, represents a group of neurodegenerative diseases characterized by structural damage to the optic nerve and the slow, progressive death of retinal ganglion cells. The nervous system is rich in lipids and oxidative stress plays a crucial role in neurologic damage. We carried out two multicenter case control studies to evaluate the oxidative stress profile in large series of glaucoma and NAION patients. In both studies, a comprehensive systemic oxidation profile was evaluated in control and patient groups. To assess the oxidative stress, markers of this destructive process, main antioxidants, along with SOD and Gpx systems were studied. 8-hydroxy-2'-deoxyguanosine –marker of oxidative stress related DNA damage in urine, levels were also determined in the NAION study. In both studies, oxidative stress parameters varied significantly in the patient groups. For vitamin E and MDA, extremely significant increases were found. Significant correlations have been found between clinical findings and oxidative stress parameters. In these studies, not only clear evidences were obtained regarding optic neuropathy-oxidative stress connection, but certain interactions of antioxidants that have unique neurohormone- like activities and regulatory mechanisms were pointed out as well. A more comprehensive understanding of oxidative damage and response dynamics will enable us to determine more efficient diagnosis, follow-up and treatment strategies and facilitate to answer important questions about optic neuropathies.

## BIOGRAPHY

Engin K N is an Ophthalmologist and PhD holder in Biochemistry. He has a strong focus on optic nerve and his areas of interest are glaucomatous neurodegeneration, oxidative stress, neuroprotection and vitamin E. Currently, his review article Alpha Tocopherol: Looking beyond an antioxidant has been cited over 90 times. Along with other academic activities, he is author of 39 publications, seven special lectures, more than 70 presentations, and he received six awards. He is Member of ARVO, EVER, Society of Free Radicals and Antioxidants Research (Turkey). Since 2005, he has been serving as an active Member of glaucoma division of Turkish Ophthalmology Society.

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## THE POWER OF CONTRAST SENSITIVITY AND NUTRITIONAL INTERVENTION IN PRIMARY EYE CARE

### Mark Roark

Allisonville Eye Care Center, USA

**Purpose:** This paper discusses the proper use of visual acuity measurement and its limitations in assessing a patient's ability to perform daily activities. It demonstrates that Contrast Sensitivity (CS) testing, when measured at intermediate spatial frequencies, is a powerful tool useful in providing unique and important information for both patients with healthy eyes and those with ocular pathology. The results of CS testing enable the practitioner to provide more accurate guidance regarding nutritional intervention with macular carotenoids as shown in recent research, and for other interventions as indicated.

**Method:** The proper methods for measuring CS are described with a comparison of sine wave gratings and letter charts. The Harris Contrast Test for measuring CS with an electronic device is discussed and compared to the Pelli-Robson Chart for assessing letter CS. Normal letter CS threshold ranges are presented for patients with no ocular pathology with a suggested action diagram. The effect of ocular disease on letter CS is also detailed with suggestions for appropriate action with monitoring or referring a cataract patient. New research showing the positive effect of nutrition on visual performance in patients with early Age-Related Macular Degeneration is also reviewed.

**Results:** Case illustrations show that the techniques presented for measuring CS provide a powerful tool for proper assessment and appropriate management of patients with impaired CS in the clinic setting. The practical application of nutritional intervention utilizing the latest research findings is demonstrated for patients with no apparent ocular pathology and for those with ocular disease.

**Conclusions:** Eye Care Practitioners cannot effectively help a patient unless they truly understand the patient's visual world. This requires the use of both visual acuity testing and accurate CS measurements at intermediate spatial frequencies for the best patient care.

## BIOGRAPHY

Mark W Roark is graduated with High Honors from Indiana University with a Doctorate in Optometry and founded Allisonville Eye Care Center in Fishers, Indiana in 2003. He is certified in the treatment and management of ocular disease by the International Association of Boards of Examiners in Optometry and is a Member of the American and Indiana Optometric Associations. He is also a Fellow of the American Academy of Optometry and a Member of the Ocular Nutrition Society. He has a special interest in educating his patients about ocular nutrition and has lectured to other eye care professionals in several states on the importance of macular carotenoids in optimizing eye health and visual performance. In response to increasing demand, he has also developed a large and growing Dry Eye Clinic in his private practice. Since 1991, he has been involved in providing mobile eye care services to the poor in several third world countries including Bolivia, Honduras, Jamaica, Haiti and Dominica. Additionally, he has provided eye care services to assisted-living residents of Indianapolis for over 15 years.

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## **PUBLIC HEALTH IN DISASTER MANAGEMENT - THE OCCUPATIONAL THERAPY PERSPECTIVE**

### **Elisabete Roldao**

Health School of the Polytechnic Institute of Leiria, Portugal

The Health School of the Polytechnic Institute of Leiria created the "HumaniTer Project". This is a recent Project of the Occupational Therapy Educational Program, that arises from a partnership between the school and the NGO Doctors of the World to respond to the assumption of the Leiria Polytechnic Strategic Plan 2020 (IPL, 2017), promoting institutional relations and the integration of students in community intervention contexts. This project has been implemented last year in Castanheira de Pera, after the devastating fires that affect the region, with four students and a clinical educational supervisor integrated in the first humanitarian mission implemented in Portugal - Missão Esperança (Mission Hope).

The catastrophe context in place was terrible. The population is poor, with few studies, some even illiterate, poorly informed, lonely, unable to move by their one means, with many comorbidities and aged. The conditions and institutions in the community are not sufficiently responsive to the needs of the population at such times and in a catastrophe situation, as this, they have been undersized. Geographical features and isolation are severe and resources, such as transportation, are almost non-existent and alternatives too scarce or costly. This affects the population and consequently their ability to take care of themselves, even without being in catastrophic situations.

In a disaster context people lose their homes, their families, pets, garden, small farms, hobbies, roles and responsibilities, tasks, and so on...they get lost.

The World Federation of Occupational Therapists indicates that occupational therapists can collaborate with fragile communities to facilitate the reconstruction and reorganization of their lives and the re-encounter of significant occupations (Sinclair & Thomas, 2005). Occupational Therapy can assess the situation, reestablish occupations, restore meaningful activities to these people, find new tasks and functions to perform in order to rebuild their identity as occupational beings. It is extremely important to maintain activities, roles and responsibilities and avoid occupational deprivation while maintaining emotional balance.

In this framework, with the population victim of the Castanheira de Pera catastrophe, and to promote the public health, there were implemented community projects, such as tapestry, health education and literacy, home visits, recommendations on the adaptation of housing and institutional context, cognitive stimulation and movement sessions in groups, recommendations and training of assistive technology products for the daily living activities. The Occupational Therapists on the field also cooperate with different local institutions promoting community activities, lectures and actions promoting health.

## **BIOGRAPHY**

Elisabete Roldao is an Occupational Therapist since 1992 and is now finishing her PhD in Rehabilitation at Lisbon University. She is a professor of Health School of the Polytechnic Institute of Leiria, Portugal. She is the President of the Portuguese Association of Occupational Therapists, the representative of Portugal in the World Federation of Occupational Therapists and in the Council of Occupational Therapists for the European Countries. She is a member of the Technical Assessment Committee of the Occupational Therapy Area, and a member of the Working Group for the Analysis and Presentation of Proposals in the field of Physical Medicine and Rehabilitation in Ambulatory, created by the Central Administration of the Health System, IP. She is also a member of the Regional Council of Mental Health of ARSLVT. She is the Director of the Magazine APTO and the founding member of the International Interest Group of the Portuguese Association of Occupational Therapists.

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## INHIBITION OF MTOR PATHWAY TO PREVENT PHOTORECEPTOR CELL DAMAGE

**Umur Kayabasi**

Uskudar University, Turkey

**Introduction:** mTOR is a cytoplasmic kinase that regulates cell growth and metabolism in response to mitogens (such as IGF-I and vascular endothelial growth factor (VEGF)), nutrients (amino acids, glucose and fatty acids), hormones including insulin and cytokines. This pathway is essential for development and growth of the young organism. But later in life, when growth has been completed, mTOR drives cellular and organismal aging by acquiring pro-inflammatory and signal resistant characteristics. mTOR pathway also takes part in retinal degenerative diseases.

**Methods:** 10 patients with mid stage retinitis pigmentosa (RP) were treated by intravitreal rapamycin and oral metformin plus resveratrol for six months. 10 other RP patients were given placebo. The average age of the patients was 28. After one year, change in visual acuity and visual fields (VF) was recorded.

**Results:** Difference in change in visual acuity did not reach a significant statistical result between the two groups whilst the visual fields were either protected or slightly improved in the treatment group. The difference in mean deviation before and after one year follow up between the two groups was statistically significant. (P:0.001) VF deteriorated in the placebo group, but was preserved in the Treatment group.

**Conclusion:** Inhibition of mTOR maintains cellular proteostasis and attenuates oxidative stress by reducing misfolded protein synthesis and augmenting autophagy to remove misfolded proteins caused by gene mutations. The combination of rapamycin, metformin and resveratrol may help to stabilize VF loss in hereditary retinal diseases.

## BIOGRAPHY

Umur Kayabasi is a graduate of Istanbul Medical Faculty. After working as an Assistant in Ophthalmology, he completed his clinical fellowship program of Neuro-Ophthalmology and Electrophysiology at Michigan State University in 1995. After working as a Consultant Neuro-Ophthalmologist in Istanbul, he worked at Wills Eye Hospital for three months as an observer. He has been working at World Eye Hospital since 2000. He has chapters in different neuro-ophthalmology books, arranged international symposiums, attended TV programs to advertise the neuro-ophthalmology subspecialty. He has also given lectures at local and international meetings, plus published papers in neuro ophthalmology.

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## CO-RELATION BETWEEN THE PERIPAPILLARY MICROVASCULATURE AND OCULAR PULSE AMPLITUDE IN GLAUCOMATOUS OPTIC NEUROPATHY

**Amila Sampath Chandrasekera**

Vision Care Optical Services PVT Ltd, Sri Lanka

**Introduction:** Although elevated intraocular pressure (IOP) is the main risk factor for glaucoma, other risk factors and vascular risk factors have been implicated in the pathogenesis of glaucoma. Impaired microcirculation in the optic nerve head may contribute to the initiation and progression of glaucomatous neuropathy. It has been proposed that the main pathologic changes in glaucoma are in the deep vascular areas in optic nerve head region.

**Objective:** To find out the co-relation between ONH microvasculature perfusion and ocular pulse amplitude and their effect on retinal nerve fiber layer thickness in glaucomatous optic neuropathy.

**Procedure:** Study was conducted with 1000 subjects who were diagnosed as glaucomatous optic neuropathy (based on the Hodapp-Parrish-Anderson criteria) and grouped as normal tension glaucoma, primary open angle glaucoma and non-glaucomatous. In every subject peripapillary vascular perfusion (PVP), ocular pulse amplitude (OPA) and retinal nerve fiber layer thickness (RNFLT) was measured.

**Results:** In every group, glaucomatous stages and glaucoma suspects showed significantly lower blood perfusion index compared with normal eyes ( $P \leq 0.0015$ ). Blood perfusion showed a direct correlation with ocular perfusion pressure calculated with OPA ( $P \leq 0.0123$ ). Similar discrimination capability PVP compared with RNFL thickness was found in both disease groups.

**Conclusion:** Impaired blood supply to the optic nerve head peripapillary area, may cause to develop RNFL thinning which directly leads to glaucomatous optic neuropathy. Investigations on PVP and OPA will provide a very early diagnosis and a repeatable follow up baseline for the disease, beyond the existing methods.

## BIOGRAPHY

Amila Sampath Chandrasekera has completed the certificate of ophthalmic assistance in 2011 and completed diploma in Optometry in 2015 from Academy of Vision Care Optical Services Sri Lanka. He has presented oral and poster presentations in academic and international level poster and won the second place for best poster award in International Conference in Clinical and Experimental Ophthalmology 2015. Currently, he is practicing at the retinal and glaucoma diagnostic unit at Vision Care Optical Services PVT Ltd., head office Sri Lanka.

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## THE DOUBLE BURDEN OF MALNUTRITION IN REFUGEE SETTLEMENTS

**Rebecca Nerima**

Vitamin Angels, Uganda

**Objective:** The main objective of this study is to explore the existence of a double burden of malnutrition in Refugee settlements in Uganda.

**Background:** A growing number of refugee camps in Uganda because of war in Southern Sudan are facing a double burden of malnutrition, that is, the persistence of under-nutrition, along with a rapid rise of over-nutrition and non-communicable diseases such as diabetes, hypertension and coronary heart disease. This double burden of malnutrition has resulted from various factors including: a marked transition in dietary patterns over recent years (e.g. shifts to energy dense diets high in saturated fat, sugar, and refined foods, and away from plant-based diets); inadequate access to healthy food choices; declining levels of physical activity; and inadequate access to health care services because of displacement and broader social determinants. In refugee settlements and host communities in Uganda, in addition to the high levels of under-nutrition, substantial levels of overweight/obesity have also been observed. At the national level, 35% of children are stunted. The prevalence is even higher in host communities where 40% of children screened are stunted. Many low- and refugee settlements and host communities are undergoing a nutrition transition associated with rapid social and economic transitions. We explore the coexistence of over and under-nutrition at the neighborhood and household level, in a refugee settlement setting in Uganda.

**Methods:** Data collection and review: data was collected in 2016 on a cohort of children aged under five years born between 2010 and 2015. Anthropometric measurements of the children and their mothers were taken. Additionally, dietary intake, physical activity, and anthropometric measurements were collected from a stratified random sample of adults aged 18 years and older through a separate cross-sectional study conducted between 2012 and 2015 in the same setting. Proportions of stunting, underweight, wasting and overweight/obesity were determined in children, while proportions of underweight and overweight/obesity were determined in adults.

**Results:** Of the 2335 children included in the analyses with a total of 4750 visits, 46% (51% boys, 40% girls) were stunted, 11% (13% boys, 9% girls) were underweight, 2.5% (3% boys, 2% girls) were wasted, while 9% of boys and girls were overweight/obese respectively. Among their mothers, 7.5% were underweight while 32% were overweight/obese. A large proportion (43% and 37%) of overweight and obese mothers respectively had stunted children. Among the 3190 adults included in the analyses, 9% (6% female, 11% male) were underweight, and 22% (35% female, 13% male) were overweight/obese.

**Conclusion:** The findings confirm an existing double burden of malnutrition in this setting, characterized by a high prevalence of under nutrition particularly stunting early in life, with high levels of overweight/obesity in adulthood, particularly among women. In the context of a rapid increase in refugee population, particularly in poor settings, this calls for urgent action. Multispectral action may work best given the complex nature of prevailing circumstances in refugee settings. Further research is needed to understand the pathways to this coexistence, and to test feasibility and effectiveness of context-specific interventions to curb associated health.

## BIOGRAPHY

Rebecca Nerima is working as Country Program Manager-Consultant at 'Vitamin Angels', a non-profit, non-governmental organization focused on combating childhood malnutrition around the world through vitamin supplementation. She was responsible for managing 'Well Share' programmatic, administrative, and financial operations. Overseeing a team of programmatic and operations staff to ensure successful program implementation and ultimately responsible for district-level project success in reaching intermediary and end-of-project goals, within set timelines and budgets. She worked on Maternal, New born and Child Health (MNCH) programs fosters from March 2011 – February 2012 forming collaboration between member organizations and associates, while also mobilizing practitioners, scholars, advocates and donors to support the health of underserved mothers, children and communities around the world through community health approaches. As a Project officer she was responsible for overall strategic direction, project leadership, monitoring, and oversight responsibilities for a multi-year, training and technical assistance, working in partnership with the Ministry of Health, local government, communities and a nationwide network of subject matter experts from 2006-2011. Rebecca accomplished her BA. Degree in Social Sciences from Makerere University Kampala, in the field of Study Sociology & Social Administration during the year 2000 – 2003.

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## MACULA HOLE POST BLUNT OPHTHALMIC TRAUMA IN A PEDIATRIC PATIENT

### Anna Praidou

General Hospital of Thessaloniki, Greece

**Statement of the Problem:** The purpose of this case report is to present an usual presentation of macula hole which is associated with commotio retinae post blunt ophthalmic trauma in a paediatric patient.

**Methodology & Theoretical Orientation:** A case of 12-year-old male patient was referred to our eye department due to blurry vision post blunt trauma on his left eye. On examination ocular motility was normal while his best corrected visual acuity (BCVA) was decreased to 20/200 in his left eye.

**Findings:** Slit-lamp examination of the anterior segment was normal, while funduscopy revealed vitreous and retinal hemorrhages, commotio retinae of the posterior pole with cherry red macular spot, and macula hole. The patient underwent optical coherence tomography investigation which confirmed the initial diagnosis. One week follow up showed vitreous detachment and spontaneous closure of the macula hole, while BCVA remained decreased due to diffuse vitreous hemorrhage.

**Conclusion & Significance:** The patient was followed up closely during the first few weeks after his trauma to be monitored and treated for potential complications. Traumatic macula hole is a rare complication which is associated with commotio retinae of the posterior pole after blunt ophthalmic trauma. Spontaneous vs. surgical closure of the macula hole could be expected in a few cases. While some patients recover completely, some patients will remain visually impaired with reduced vision or paracentral scotoma.

## BIOGRAPHY

Anna Praidou received her Medical degree, completed her PhD thesis and her residency at the University of Thessaloniki, Greece. She completed MSc in Medical Research Methodology at the University of Thessaloniki, Greece and another MSc in Health Unit Management at the Open University of Patra, Greece. After completion of her training in Ophthalmology she worked at Alder Hey Hospital, Liverpool in Pediatric Ophthalmology, at Royal Liverpool University Hospital in Medical Retina, Uveitis, and Ocular Oncology Services. She was previously also working at Moorfields Eye Hospital, London in the Cataract Service and at the Royal Free Hospital, London in Medical Retina and Cataract services. She is currently working as a Consultant Ophthalmic Surgeon in NHS.

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Note:

**ASSOCIATION OF ALCOHOL CONSUMPTION AND INTRAOCULAR PRESSURE IN MEN AND WOMEN: THE 5<sup>th</sup> KOREA NATIONAL HEALTH AND NUTRITIONAL EXAMINATION SURVEY 2010-2012**

**Young Cheol Yoo**

Hallym University College of Medicine, South Korea

**Purpose:** To assess the relationship between daily alcohol consumption and intraocular pressure (IOP) in Korean men and women

**Methods:** We explored the effect of daily alcohol intake on high IOP in 7,532 adults who participated in the 2010-2012 Korean National Health and Nutritional Examination Survey (KNHANES). Multiple logistic regression analysis was used to assess the relationship between average daily alcohol consumption and an IOP of  $\geq 18$  mmHg after adjusting for age, body mass index, hypertension, diabetes mellitus, and smoking in each sex group.

**Results:** When adjusted for related factors, the odds of high IOP was 2.57 times (95% confidence interval, 1.239 to 5.314) higher in men with a daily heavy alcohol intake than men with a heavy alcohol intake  $<1$  per month. However, increased odds of high IOP with daily alcohol consumption were not found among women.

**Conclusions:** After adjusting for age and other confounders, there was a significant relationship between daily alcohol consumption and high IOP in men, whereas the relationship was not significant in women.

**Recent Publications:**

1. Wang S, Wang JJ, Wong TY (2008) Alcohol and eye diseases. *Surv Ophthalmol*. 53(5):512-525.
2. Nemesure B, Wu S Y, Hennis A, Leske M C (2003) Barbados eye studies group factors related to the 4-year risk of high intraocular pressure: the Barbados eye studies. *Arch Ophthalmol* 121(6):856-862.
3. Houle R E, Grant W M (1967) Alcohol, vasopressin, and intraocular pressure. *Invest Ophthalmol* 6(2):145-154.
4. Choi J A, Han K, Kwon H S (2014) Association between urinary albumin excretion and intraocular pressure in type 2 diabetic patients without renal impairment. *PLoS One*. 9(5):e96355.
5. Pasquale L R, Kang J H (2009) Lifestyle, nutrition and glaucoma. *J Glaucoma* 18(6):423-428.

**BIOGRAPHY**

Young Cheol Yoo has run a busy cataract and glaucoma surgical practice with special expertise in complex cataract removal using the latest technologies including toric lenses as well as multifocals. He is an expert on optical coherence tomography and standard automated perimetry. Current research interests includes: structure-function relationship in glaucoma, glaucoma in myopia, minimally invasive glaucoma surgery, and validating and commercializing new medical devices.

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# PUBLIC HEALTH, EPIDEMIOLOGY AND NUTRITION

September 03-04, 2018 | Lisbon, Portugal

# DAY 2

Scientific Tracks & Abstracts

Eye Care 2018 & Public Health Congress 2018

# Day 2

# SESSIONS

September 04, 2018

Ocular Toxicology | Clinical Meets Pre-Clinical: Translational Research | Public Health & Integrated Eye Care | Retinal Disorder | Ophthalmic Drug Delivery | Maternal, Infant and Child Health

## Session Introduction

### Session Chair

**Engin K N**

Saglik University, Turkey

**Title: Lack of obstetric ICU: One of cause of increase maternal mortality in developing countries**

Anjali Rani, Banaras Hindu University, India

**Title: Novel method of utilization of trained medical students for house to house screening for obtaining population based data on ophthalmic diseases**

Lavanya G Rao, Dr A V Baliga Memorial Hospital, India

**Title: Effect of age on stereopsis**

Masoud Poudineh, Zahedan University of Medical Sciences, Iran

**Title: Optic nerve sheath decompression medial approach experience of prince sultan military medical city**

Maha A Badr, Prince Sultan Military Medical City, Saudi Arabia

## LACK OF OBSTETRIC ICU: ONE OF CAUSE OF INCREASE MATERNAL MORTALITY IN DEVELOPING COUNTRIES

### Anjali Rani

Banaras Hindu University, India

**Introduction:** In developing countries like India in few states like Uttarparadesh maternal mortality rate is still very high. There are so many factors for increase maternal mortality. It is observed from day to day management that lack of separate obstetric ICU facility is also one of the key factor in increasing the mortality. In Intensive care unit no beds are available. You can not ask a chronic morbid patient to put off the ventilator to save a young mother.

**Material and Methods:** This study was done over a period of one year from Jan 2014 to Dec 2015 at a tertiary care centre in Eastern part of Uttar Pardesh. In This study we observed that how many patiens which needed ventilator support could not get it because of lack of facility. So these patients were kept on ambu bag or intubated with ambubag . We do not know if ventilator facility was available then these patients would have survived but definitely results would have been better.

**Results:** In our study 54 patients died in one year. There were so many causes of so much deaths. It is tertiary care centre. All complicated cases are referred here. Patient are referred very late when it is very difficult to save patients. Because of poverty and transport problems also many patient loose their life. 10% patients did not able to get ICU facility because of non availability of bed.

**Conclusion:** To save young mothers there should be a separate obstetric ICU available at every tertiary care centre. A team of trained anesthetist ,obstetrician skilled in obstetrical critical care should managed critical obstetric patient. More fellowships in critical care should be started to train obstetrician to save mothers.

## BIOGRAPHY

Anjali Rani has established the clinic in Ravindrapuri, Varanasi, India and has gained a loyal clientele over the past few years and is also frequently visited by several celebrities, aspiring models and other honourable clients and international patients as well. She treats the various ailments of the patients by helping them undergo high-quality treatments and procedures. Among the numerous services offered from the clinic, the clinic provides treatments for Uterine Fibroids or Myomas, Ovarian Cysts, Endometriosis, Pelvic Organ Prolapse, Urinary Problems, Vaginal Discharge, Subfertility, Menopause, Gynaecological Cancers. She has published many papers in International and international journals.

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## NOVEL METHOD OF UTILIZATION OF TRAINED MEDICAL STUDENTS FOR HOUSE TO HOUSE SCREENING FOR OBTAINING POPULATION BASED DATA ON OPHTHALMIC DISEASES

**Lavanya G Rao**

Dr A V Baliga Memorial Hospital, India

**Statement of the problem:** Novel method of utilization of medical students for house to house screening to obtain population based data on ophthalmic diseases in India. There is paucity of population based data, due to shortage of trained manpower for screening. The purpose of this study is to describe utilization of medical students to conduct house to house screening in rural India around a medical college who can be the source of trained manpower for data collection for ocular and systemic diseases.

**Methodology and Theoretical Orientation:** Trained III year MBBS students were provided a questionnaire and deployed for house to house screening in villages spanning a 20 km radius around a tertiary care center on every Sunday for a year assisted by staff in rural maternity and child welfare centers. In Children 3 years, E chart were used. Population was screened for anterior and posterior segment diseases. Non mydriatic fundus camera was used.

**Findings:** Of the 25,375 screened, 51% were females. Children (0-6 years) comprised 9 % and 2% were >80 years. Commonest among the young were infections of lids & conjunctiva and refractive errors, among 40-60 years presbyopia, glaucoma, cataract and in >60 years cataract. 17% with severe visual impairment had not accessed eye care services. 10 % had refractive errors / anterior segment diseases. 3.5% had posterior segment diseases. 30% of diabetics had not consulted an ophthalmologist. 20 % with visual impairment were not interested in availing ophthalmic care.

**Conclusion and significance:** House to house screening can provide data on prevalence of diseases in the population. Utilization of medical students a novel method can make up for lack of trained manpower. Recommendations: If all medical colleges in the country were to conduct screening programs with uniform protocol, authentic data at national level can be obtained which can provide an insight into the problems associated with implementation of national program for control of blindness in rural India and implementable measures can be planned.



Note:

## BIOGRAPHY

Lavanya G Rao is a comprehensive ophthalmologist with special interest in anterior segment diseases, medical retina, community and pediatric ophthalmology. She has served in academic institutions for more than 20 years and has contributed immensely to undergraduate and postgraduate ophthalmic teaching in medical college. Presently after retirement from Manipal university is a consultant at Dr AV Baliga memorial Hospital Udipi, India

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## EFFECT OF AGE ON STEREOPSIS

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**Purpose:** To evaluate the effect of age on stereopsis.

**Methods:** We evaluated stereoacuity using TNO and titmus test after full correction of refractive errors in 87 randomly selected subjects aged 5-80 years.

**Results:** There was a significant relationship between stereopsis and age such that stereoacuity increased with aging (ANOVA,  $P < 0.001$ ).

**Conclusion:** Stereopsis decreases with aging and therefore age of the patient should be considered in this regard.

**Key words:** Stereopsis, Titmus, TNO, Age

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Note:

**OPTIC NERVE SHEATH DECOMPRESSION  
MEDIAL APPROACH EXPERIENCE OF  
PRINCE SULTAN MILITARY MEDICAL CITY****BIOGRAPHY**

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**Introduction:** Idiopathic intracranial hypertension (IIH), also known as primary pseudo tumor cerebri, is a disorder of increased intracranial pressure (ICP) with normal Neuroimaging and CSF composition and no underlying etiology. The incidence of IIH in many Middle East countries has been estimated at 2.02–2.2/100,000 in the general population, which is higher than the Western rate. When vision impairment in a patient with papilledema is persistent, prompt treatment is required in hopes of preventing permanent loss of vision. If medical treatment is not effective, we can have surgical option like ventriculo-peritoneal shunt, lumbo-peritoneal shunt or optic nerve sheath decompression.

**Methods:** Retrospective, non comparative, interventional case series. Thirty cases underwent by using ONSD medial approach in Ophthalmology Department in Prince Sultan Military Medical City from 1995 to 2017. All these patient was referred from the Neurology Department. 26 patient was diagnosed as increase idiopathic intracranial pressure and 4 patient with secondary increase intracranial pressure. All patients underwent full Neuro ophthalmic assessment including visual acuity, visual field pre-operative and post operative. The treatment of IIH patients depends on their symptoms and vision status. The indications for ONSD Progressive visual loss who fail maximum medical therapy, severe bilateral disc swelling or visual loss in patients who do not comply with medical therapy. Secondary increase in ICP due to non-respectable tumor and Presence of additional risk factors like Renal failure, Hypertension, SLE and others.

**Results:** Main outcome measures the visual acuity, visual fields, and surgical complications will be discussed. Thirty patient underwent ONSD, in one eye with the worst visual field, 26 patients out of 30 (86%) cases due to idiopathic increase intracranial pressure, four patient (13%) cases due to secondary increase ICP. After ONSD 22 patient 73% improved visual field in both eyes. Six patient 20% stabilized visual field in both eyes, one patient 3% deteriorated post operative vision secondary to operative complication.

**Conclusion:** Optic Nerve Sheath Decompression effectively stabilizes or improves visual function in the majority of patients with PTC and visual loss. However, it may fail at any time after surgery; patients with PTC need to be followed-up routinely with visual field assessment to detect deterioration of visual function. Bilateral disc edema resolved and visual field improvement seen most cases when only one eye underwent optic nerve sheath decompressed.

**Key words:** Optic Nerve Sheath Fenestration, Decompression, Pseudo Tumor Cerebri.