3rd International Conference and Expo on

Optometry & Vision Science

October 08-09, 2018 | Edinburgh, Scotland

Keynote Forum

Day 1

Optometry 2018

Ingrid Kreissig, Optom open access 2018, Volume 3
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Ingrid Kreissig

Heidelberg University, Germany

Primary retinal detachment: How to treat it best?

The treatment options for a primary retinal detachment will be analyzed by starting with Gonin in 1930 up to present in regard to their morbidity, rate of reoperation and long-term visual function. There had been a change from surgery of the entire retinal detachment to a surgery limited to the area of then retinal break and as well a change from an extraocular to an approach for reattaching the retina. Over the last decades there had been evolved four major surgical techniques for repair of a primary retinal detachment being applied in the beginning of the 21st century. All of these have still one issue in common: To find and close the retinal break which causes the detachment and which would cause a redetachment, if not sealed off sufficiently. In conclusion, to find and close the break(s) appropriately in a primary retinal detachment has accompanied the efforts of retinal detachment surgeons during the past eight decades which is still the "conditio sine qua non" for long-term reattachment. But, however, today four postulates have to be fulfilled for each of the four techniques for repair that includes; Retinal reattachment should be achieved with the 1st operation; the procedure should have a minimum of morbidity; it should not harbor secondary complications jeopardizing regained visual acuity and; it should be performed on a small budget in local anesthesia. This is needed, because the budget for ophthalmology of today has to cover as well very expensive and long-term needed treatment modalities for AMD.

Biography

Ingrid Kreissig is currently a Professor at Department of Ophthalmology Univ. Mannheim-Heidelberg, Mannheim, Germany. She is also serving as Adjunct Professor at New York Hospital-Cornell Medical Center, New York. Her specialization includes, Posterior Segment of the Eye: St. Gall/Switzerland, Bonn/Germany, and New York Hospital-Cornell Medical Center/USA. During 1979-2000, she has been the Chairman of Univ. Tuebingen/Germany. She has published more than 404 papers, those are been published in national and international journals of ophthalmology, basically on topics such as surgery of retinal detachment with long-term follow-up of anatomic and functional results, cryopexy histology, tumors, AMD, diabetic retinopathy, and intravitreal pharmacotherapy. She has also published many books.

David Berkow, Optom open access 2018, Volume 3
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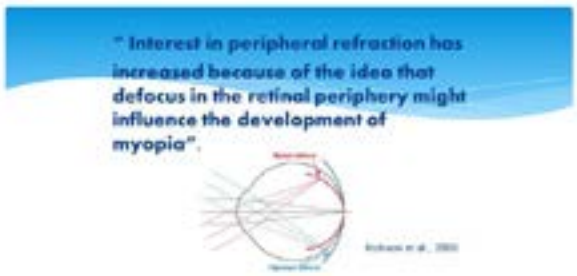
David Berkow

Ulster University, UK

Peripheral refraction-yes or no!

It is predicted that by the year 2050, half of the world's population (five billion people will be myopic and that nearly one billion will be at a high risk of threatening ocular pathology. The first link between peripheral refraction and myopia, in humans, was found in 1971 by Hoogerheide and his colleagues, although this issue was studied even Early by Earl Smith three using monkeys. Eye care practitioners today must not only think in terms of the short-term effect of treatment but also more importantly, the long term effect of the treatment. Prescribing spectacles may give an immediate positive result by enabling the child to see well but this will not stop the short sightedness to progress. Therefore we must treat children who are myopic by trying to retard the progression of the myopia. There are a number of treatments, two of which use contact lenses, either soft contact lenses or rigid gas permeable contact lenses. The treatment when using contact lenses is based on defocus at the periphery of the retina. We call this treatment pattern myopia control. This presentation will explain in detail what peripheral defocus is all about, the different types of peripheral defocus, how it applies to the different types of contact lenses and how important this issue is as far as treating myopic children. It will explain why and how myopic defocus can retard the increase in axial length of the eye, which is the major reason for the increase in myopia. In conclusion, children who have been detected as having the increased potential of being myopic should be given the option of being treated by means of myopia control in order to try to retard the progression and thus trying to avoid the child of being included in the risk group of potentially developing any ocular pathology caused by "high myopia".



Recent Publications

1. Kang P (2018) Optical and Pharmacological strategies of myopia control. Clinical and Experimental Optometry 101 (3):32-332.
2. Sankaridurg P (2017) Contact lenses to slow progression of myopia. Clinical and Experimental Optometry 100 (5):432-437.

3. Zhouyue L, Cui D, Hu Y, Ao S, Zeng J and Yang X (2017) Choroidal thickness and axial length changes in myopic children treated with orthokeratology. Contact Lens and Anterior Eye 40 (6): 417-423.

4. Wolffsohn J S, Calossi A, Cho P, Gifford K, Jones L, et al. (2016) Global trends in myopia management attitudes and strategies in clinical practice. Contact Lens and Anterior Eye 39 (2):106-116.

5. Smith M and Walline J J (2015) Controlling myopia progression in children. Adolescent Health, Medicine and Therapeutics 6: 133-140.

Biography

David Berkow is an optometrist who has been in private practice since 1978. His main passion is fitting contact lenses both for cosmetic reasons but especially when required for medical reasons as in cases of keratoconus, dry eye syndrome, extreme prescriptions and is very interested in myopia control via the use of contact lenses. David is invited to lecture extensively both nationally and also internationally. David qualified as an optometrist in 1978 and has since completed his Masters degree in Optometry at Ulster University in Ireland and is now in the process of completing his Doctorate in Optometry at Aston University.

Notes:

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Day 2

Paul Charles Knox, Optom open access 2018, Volume 3
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Paul Charles Knox

Institute of Ageing and Chronic Disease, University of Liverpool, UK

Early detection of macular disease: AMD, DMO and beyond

New treatments for neovascular age-related macular degeneration (nAMD) and diabetic macular oedema (DMO) have transformed the prognosis for patients. But there is a pressing need for improved, cost-effective methods of detection and monitoring of these conditions. The handheld radial shape discrimination (hRSD) test has shown potential for the early detection of macular pathologies. We followed patients diagnosed with nAMD in their first eye, with no evidence of nAMD in their other eye (study eye, SE) over consecutive, routine, clinic visits at which they undertook the hRSD test presented on an Apple iPod Touch. We also examined hRSD test performance in patients referred from diabetic screening as being at risk of DMO (screening grade M1). Of 179 nAMD patients, 19 (10.6%; "converters") developed nAMD in the SE; hRSD thresholds in the converters began to decline 190 days before diagnosis. At an hRSD cut-off of -0.60 logMAR, sensitivity was 0.79 (95% CI: 0.54–0.94) with a specificity of 0.54 (0.46–0.62). Of 145 M1 patients, 44 (30.3%) were found to have centre involving macular oedema; hRSD thresholds were significantly worse in these patients, compared both to those with no DMO and those with non-centre threatening DMO. Thus, the hRSD test is sensitive, both to the earliest stages of pathology (in the nAMD patients) and to different stages of pathology (in DMO). Given high levels of patient acceptability, that it can be done by patients away from clinics, and that it runs on inexpensive, well connected devices, the hRSD test could have a role in both improved detection and monitoring of macular disease away from hospital clinics.

Recent Publications

1. Ku J Y, Milling A F, Pitrelli Vazquez N and Knox P C (2016) Performance, usability and comparison of two versions of a new macular vision test: the handheld Radial Shape Discrimination test. PeerJ. 4:e2650.

2. Wang Y-Z, He Y-G, Mitzel G, Zhang S and Bartlett M (2013) Handheld shape discrimination hyperacuity test on a mobile device for remote monitoring of visual function in maculopathy. Invest Ophth Vis Sci. 54 (8): 5497-505.

Biography

Paul Knox is a Physiology graduate from the University of Glasgow, from where he also obtained his PhD in Neurobiology. After appointments in the Universities of Hull and Edinburgh, a Wellcome Trust Vision Research Fellowship allowed him to develop his research interests in vision and eye movement. Currently the Reader in Vision Science in the University of Liverpool, he now conducts research on human vision and visually-guided behaviour in development, ageing, health and disease. He has been a member of the NICE Medical Technologies Advisory Committee since its inception in 2009. This led to an active interest in the generation and assessment of clinical evidence, including evidence demonstrating the performance of vision tests deployed on mobile devices. He is currently one of the investigators in the UK HTA-funded MONARCH study researching tests for home monitoring in neovascular AMD patients.

Lisa Brothers Arbisser, Optom open access 2018, Volume 3
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Lisa Brothers Arbisser

Eye Surgeons Associates, USA

Mastering the posterior capsule: Thinking out of the bag paradigm change

Reasons for and methods of creating a hyaloid sparing posterior capsulotomy to be described by video and discussed. Techniques including manual, femtolaser (off label), Zepto, and CapsuLaser, being developed for anterior and posterior capsulotomy are to be demonstrated. Retro-lenticular anatomy will be delineated. Cases include conversion of PCR in complications, resolution of unpolishable plaques and primary rhexis in pediatrics, uveitis and routine adults shown. Posterior optic capture into Berger's space and innovative sulcus bicapsulotomy capture will be shown and discussed. Prospective evidence both published and, as yet unpublished, will be reviewed proving the value and safety of the posterior optic capture technique originally described in 1994 by Howard Gimbel. Benefits will be stressed; in particular, a zero rate of secondary cataract for all ages without vitrectomy, improved initial stable vision and other potentially profound advantages with regard to lens subluxation, retinal pathology and glaucoma. Economic realities and impact will be covered. At the conclusion of the symposium the attendee will be knowledgeable enough to consider a hyaloid sparing posterior capsulorhexis and optic capture technique as the future of cataract surgery, know developing automated technology for capsulotomy and its learning curve and understand the paradigm changing advantages of making cataract surgery a permanent visual solution for all ages eliminating the need for Yag capsulotomy and planned pediatric anterior vitrectomy. PCO can, must be eliminated. The knowledge, technology and technique exists; the economic impact is huge. The benefits of intact hyaloid for all; legion.

Biography

Lisa Brothers Arbisser teaches cataract and anterior segment surgery worldwide. Currently Adjunct Professor at the University of Utah Moran Eye Center after an NIH research fellowship in neurobiology and retina, Texas MD and residency at the University of Iowa, she specializes in refractive and complex adult and pediatric cataract surgery. Known for teaching complication avoidance and management, as a surgical coach, researcher and lecturer, she retired from patient care, after 30 years of high volume surgery in the practice she co-founded. Having performed live interactive satellite surgery at major national and international meetings, she regularly teaches vitrectomy for the anterior segment surgeon and skills transfer labs. She reviews, edits and authors textbook chapters, journal articles, the American Academy Online News and Education Network, Focal Points and writes two regular columns. She is former president of the American College of Eye Surgeons, serves on the Arunodaya CharitableTrust board, is secretary of Women in Ophthalmology and has been designated a Living Legend by the American Women's Medical Association. She is honored with numerous awards and distinctions both educational and philanthropic. Designated in the top 50 ophthalmic opinion leaders by CRST.

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