

# CONTENTS

---

---

Preface .....	2
Programme .....	3
Abstracts	
Session 1 – Workshop on Lifestyle Management .....	8
Session 2 – Ethics in Ophthalmology .....	10
Session 3 – Workshop on Refractive Surgery/Cataract .....	11
Session 4 – Workshop on External Disease/Oculoplastic Surgery .....	13
Session 5 – Glaucoma .....	15
Session 6 – Surgical Ophthalmology .....	18
Session 7 – Medical Ophthalmology .....	21
Session 8 – Paediatric Ophthalmology .....	23
Session 9 – Clinical Ophthalmology .....	24
Index of Participants .....	25

## PREFACE

---

---

Welcome to the 16<sup>th</sup> congress of the Ophthalmological Society of the West Indies (OSWI) in the Bahamas. This year, we were faced with a major problem which needed immediate attention by the executive of OSWI. As you are all aware, Hurricane Ivan devastated the Island of Grenada where this year's congress was to be held. After many phone calls and discussions with our host Ophthalmologist and Vice President, Dr Elliot McGuire and the executive, the decision was made to postpone Grenada for 2005 and reschedule for 2006. Although this decision was not liked by some of the members, I felt this was the correct one and I sincerely hope that we can put this behind us and continue to contribute to the Congress this year and work towards making Grenada 2006 a huge success.

Each year, the congress has grown and also improved in the quality of the presentations.

This year is no exception. We will be introducing for the first time a section on Ethics in Ophthalmology. Your participation is extremely vital because OSWI can play a major role in advising Governments in ethical matters relating to ophthalmology. We can have a subcommittee of OSWI offering "Out of many, one voice." The lifestyle programme is well balanced and should be exciting. The quality of the papers is of high standard and covers all aspects of ophthalmology.

OSWI has continued to attract world renowned and respected ophthalmologists to its annual conference. This year is no exception. There are speakers who are leaders in their respective field of interest including ophthalmic plas-

tic and reconstructive surgery, refractive surgery, paediatric ophthalmology, glaucoma, cornea and external diseases and comprehensive ophthalmology. In other words, something for everyone.

ORBIS International will also be represented at this congress to inform the membership of the proposed upcoming regional programme scheduled for Jamaica in February 2006. I am sure you will have a lot of questions for the representative.

The sporting events are well thought out and should be exciting. There are social events which will keep spouses and children pleasantly occupied.

I wish to thank all who played a role in putting this congress together and to the membership for being extremely patient and tolerant during the period of trying to finalize a venue for this meeting. My sincere gratitude to our host member, Dr John Rodgers, who helped in planning this congress in The Bahamas. Special mention and thanks to the secretary Dr Terry Allan and members of the secretariat for their tireless and dedicated efforts in putting this congress together. Thanks to all the companies that have supported OSWI over the years and I hope this support will continue to grow.

Finally, I welcome you all to the Bahamas and may this meeting be the most memorable.

**Garth A Taylor**  
**President**  
**OSWI**

**16<sup>th</sup> Annual Congress of the Ophthalmological Society of the West Indies**  
**Our Lucaya Beach and Golf Resort,**  
**Grand Bahama Island, Bahamas**  
**July 6 – 9, 2005**

**Programme**

**Wednesday, July 6, 2005**

---

6:00 am	5K Run /Walk (ALCON)	
<b>Session 1</b>	<b>Workshop on Lifestyle Management</b> <b>Chairperson: E McGuire</b>	
1:00 pm – 1:05 pm	Welcome Address	E McGuire
1:05 pm – 1:20 pm	Stress Reduction in Mind Body Medicine	AL Anduze
1:20 pm – 1:35 pm	The Making of Glasses	H Vaughan
1:35 pm – 1:50 pm	Medicinal Foods of St Vincent	J Bacchus
1:50 pm – 2:10 pm	<b>COFFEE BREAK</b>	
2:10 pm – 2:25 pm	Birds of Trinidad and Tobago	HL Vaughan
2:25 pm – 2:40 pm	My Year as a Rotary President	D Singh
2:40 pm – 3:00 pm	<b>Panel Discussion</b>	
3:00 pm – 3:30 pm	Lifetime Award	

**Thursday July 7, 2005**

7:30 am – 8: 00 am	Registration and Continental Breakfast	
	<b>OPENING CEREMONY</b>	
8:00 am – 8:10 am	Welcome Address	GA Taylor President, OWSI

8:10 am – 8:20 am	<i>Welcome to Bahamas and Introduction of Minister of Health</i>	<i>J Rodgers Local OSWI Representative</i>
8:20 am – 8:35 am	<b>Feature Address</b>	<i>MC Bethel Minister of Health, Bahamas</i>
8:35 am – 8:45 am	<b>Vote of Thanks</b>	<i>T Allan Secretary, OWSI</i>
<b>Scientific Session 2</b>	<b><i>Ethics in Ophthalmology Chairperson: GA Taylor</i></b>	
8:55 am – 9:25 am	<i>Ethics in Ophthalmology</i>	<i>GA Taylor</i>
9:25 am – 9:55 am	<b>Discussion</b>	
9:55 am – 10:15 am	<b>COFFEE BREAK</b>	
<b>Scientific Session 3</b>	<b><i>Workshop on Refractive Surgery/Cataract Chairperson: GA Taylor</i></b>	
10:15 am – 10:20 am	<i>Welcome Address</i>	<i>GA Taylor</i>
10:20 am – 10:35 am	<i>Intralase Lasik – Our First Year Experience</i>	<i>W Culbertson</i>
10:35 am – 10:50 am	<i>The Effectiveness of Mitomycin-C Prophylaxis in LASEK Surgery – The Jamaican Experience</i>	<i>L Vaughan</i>
10:50 am – 11:05 am	<i>Experience with the Infinity Phaco Machine in Curaçao</i>	<i>A Ramirez</i>
11:05 am – 11:20 am	<i>Biometry and Refractive Cataract Surgery</i>	<i>D Singh</i>
11:20 am – 11:35 am	<i>Orthokeratology “Let’s Get It Straight”</i>	<i>S Hediguer</i>
11:35 am – 11:50 am	<b>Panel Discussion and Questions</b>	
11:50 am – 12:50 pm	<b>BUFFET LUNCH</b>	
<b>Scientific Session 4</b>	<b><i>Workshop on External Disease/Oculoplastic Surgery Chairperson: J Hurwitz</i></b>	
12:55 pm – 1:00 pm	<i>Welcome Address</i>	<i>J Hurwitz</i>
1:00 pm – 1:15 pm	<i>Entropion and Ectropion – Diagnosis and Treatment</i>	<i>J Hurwitz</i>
1:15 pm – 1:30 pm	<i>Floppy Eyelid Syndrome</i>	<i>W Culbertson</i>
1:30 pm – 1:45 pm	<i>Prevention and Management of Recurrence in Pterygium Surgery</i>	<i>AL Anduze</i>

1:45 pm – 2:05 pm	<i>The Diagnosis and Management of Epiphora when the Lacrimal Drainage Pathway are Patent</i>	J Hurwitz
2:05 pm – 2:20 pm	<i>Ophthalmic manifestations of Ocular Rosacea</i>	GA Taylor
2:20 pm – 2:35 pm	<b>Panel Discussion and Questions – End</b>	
7:30 pm	<b>Cocktail Party and Sports Awards (ALCON)</b>	

**Friday July 8, 2005**

7:30 am – 8:00 am	<i>Registration and Continental Breakfast</i>	
-------------------	---	--

**Scientific Session 5**

***Glaucoma***  
***Chairperson: C Gibbons***

8:00 am – 8:05 am	<i>Welcome Address</i>	C Gibbons
8:05 am – 8:20 am	<i>Bleb Needling and Subconjunctival 5-Fluorouracil Following Trabeculectomy with Mitomycin C – Report of Four Cases</i>	D Murray
8:20 am – 8:35 am	<i>Ahmed Valve Implant in Resistant Glaucoma: Case Series</i>	AS Bobart
8:35 am – 8:50 am	<i>Optic Nerve Assessment – The New Technology</i>	HL Vaughan
8:50 am – 9:05 am	<i>Ulceration of the Optic Nerve</i>	C Gibbons
9:05 am – 9:20 am	<i>Optical Coherence Tomography use in Glaucoma Detection and Monitoring – Our Experience</i>	S Johnston
	<i>Part I: and</i>	
	<i>Macular Imaging using Optical Coherence Tomography</i>	T Allan
	<i>Part II</i>	
9:20 am – 9:35 am	<b>Panel Discussion and Questions</b>	
9:35 am – 9:55 am	<b>COFFEE BREAK</b>	

**Scientific Session 6**

***Surgical Ophthalmology***  
***Chairperson: D Singh***

9:55 am – 10:10 am	<i>Welcome Address</i>	D Singh
10:10 am – 10:25 am	<i>Regional or Topical Anaesthetic For Open Globe Injuries</i>	S Gayer
10:25 am – 10:40 am	<i>Corneal Graft Rejection: Diagnosis, Treatment and Prevention</i>	HK Soong
10:40 am – 10:55 am	<i>Corneal Ectasia after Posterior Lamellar Keratoplasty: Mathematical Model and In Vivo Experience in Rabbit Using Femtosecond Laser</i>	HK Soong

10:55 am – 11:10 am	<i>Post Cataract Optical Coherence Tomography of the Macular</i>	<i>S Rampersaud</i>
11:10 am – 11:25 am	<i>Amniotic Membrane in Ophthalmology</i>	<i>GA Taylor</i>
11:25 am – 11:40 am	<i>New Techniques in Corneal Transplantation</i>	<i>E Alfonso</i>
11:40 am – 11:55 am	<i>Current Treatment of Bacterial Corneal Ulcers</i>	<i>E Alfonso</i>
11:55 am – 12:15 pm	<b><i>Panel Discussion and Questions</i></b>	
12:15 pm	<b><i>Lunch and Annual General Meeting (Merck Sharp and Dohme)</i></b>	
2:00 pm – 6:00 pm	<b><i>Wet Labs</i></b>	
6:30 pm	<b><i>Group Photo</i></b>	
7:00 pm	<b><i>Cocktails</i></b>	
7:30 pm	<b><i>President's Dinner (Novartis Ophthalmics)</i></b>	

**Saturday July 9, 2005**

7:30 am – 8:00 am	<i>Registration and Continental Breakfast</i>	
<b>Scientific Session 7</b>	<b><i>Medical Ophthalmology</i></b> <b><i>Chairperson: AL Anduze</i></b>	
8:00 am – 8:05 am	<i>Welcome Address</i>	<i>AL Anduze</i>
8:05 am – 8:20 am	<i>Uveitis Pearls</i>	<i>CL Cowan, Jr</i>
8:20 am – 8:35 am	<i>Visual Phenotype of Multiple Sclerosis in the Afro-Caribbean population and the Influence of Migration to Metropolitan France</i>	<i>H Merle</i>
8:35 am – 8:50 am	<i>Sarcoidosis – Ocular Manifestations in the USA Belt I</i>	<i>J Merritt</i>
8:50 am – 9:05 am	<i>Sarcoidosis – Ocular Manifestations in the USA Belt II</i>	<i>J Merritt</i>
9:05 am – 9:20 am	<i>Retinal Venous Occlusive Diseases</i>	<i>PA Edwards</i>
9:20 am – 9:35 am	<b><i>Panel Discussion and Questions</i></b>	
9:35 am – 9:50 am	<b><i>COFFEE BREAK</i></b>	
<b>Scientific Session 8</b>	<b><i>Paediatric Ophthalmology</i></b> <b><i>Chairperson: S Johnston</i></b>	
9:50 am – 10:00 am	<i>Welcome Address</i>	<i>S Johnston</i>
10:00 am – 10:15 am	<i>So What Colour are My Baby's Eyes</i>	<i>ER O'Malley</i>

<i>10:15 am – 10:30 am</i>	<i>Retinopathy of Prematurity</i>	<i>J Smith</i>
<i>10:30 am – 10:45 am</i>	<i>Advanced Strabismus Surgical Techniques</i>	<i>J Smith</i>
<i>10:45 am – 11:00 am</i>	<i>Building the Paediatric Eye Care Capacity of the Bustamante Hospital for Children in Jamaica</i>	<i>J McLeod-Omawale</i>
<i>11:00 am – 11:15 am</i>	<b><i>Panel Discussion and Questions</i></b>	
<i>11:15 am – 12:15 am</i>	<b><i>BUFFET LUNCH</i></b>	
<b><i>Scientific Session 9</i></b>	<b><i>Clinical Ophthalmology</i></b> <b><i>Chairperson: CL Cowan, Jr</i></b>	
<i>12:15 pm – 12:20 pm</i>	<i>Welcome Address</i>	<i>CL Cowan, Jr</i>
<i>12:20 pm – 12:35 pm</i>	<i>Herb-Drug Interactions</i>	<i>AL Anduze</i>
<i>12:35 pm – 12:50 pm</i>	<i>Ophthalmology in the Dominican Republic: Then and Now</i>	<i>J Battle</i>
<i>12:50 pm – 1:05 pm</i>	<i>Cataract Liquefaction Techniques and Wavefront Acrylic Intraocular Lens Correction</i>	<i>MA Santiago</i>
<i>1:05 pm – 1:20 pm</i>	<i>All Laser Custom Lasik Vision Correction</i>	<i>MA Santiago</i>
<i>1:20 pm – 1:35 pm</i>	<i>I Show, You Tell, We Discuss</i>	<i>GA Taylor</i>
<i>1:35 pm – 1:55 pm</i>	<b><i>Panel Discussion and Questions</i></b>	
<i>1:55 pm – 2:25 pm</i>	<b><i>Closing Ceremony and Sponsor Awards</i></b>	
<i>3:00 pm – 5:00 pm</i>	<b><i>Wet Labs</i></b>	
<i>7:00 pm</i>	<b><i>AFTER CONFERENCE LIME (PFIZER)</i></b>	

## Workshop on Lifestyle Management

Chairperson: E McGuire

---

Wednesday July 6, 2005

### Stress Reduction in Mind Body Medicine

AL Anduze

St Croix Eye Group

US Virgin Islands

Conventional medicine's last hundred years of drugs and surgical intervention have seen advances in the reduction of acute diseases and a concomitant increase in and persistence of chronic diseases that accompany longevity. The recent surge in alternative medicine is a consumer-driven entity that is growing more sophisticated in its molding of both traditional and conventional ideals into something more extensive and useful than either alone *ie* Integrative Medicine.

Mind Body Medicine is one aspect of this merger and is fast becoming incorporated into some of the larger medical systems.

Stress can be measured (*eg* FRAS 3 and FRAS 6 systems), identified and treated and then re-measured for effect. Several methods of effective stress reduction will be outlined and presented with discussion centred on applications to the clinical practice.

### The Making of Glasses

R Vaughan, HL Vaughan

20/20 Vision Ltd, 1 Lismore Avenue,

Kingston 5, Jamaica, West Indies

The fabricating of prescription eyewear (glasses) is fundamental to the correcting of refractive errors, yet very few ophthalmologists have ever seen the process or are knowledgeable of it. This paper outlines the basic process of completing accurate eyewear with video clips to illustrate it. The process begins with the selection of the lens blank from which the prescription is made. The major consideration here is selecting the appropriate blank for the prescription. The blank is then blocked. The attaching of the lens blank to a holder keeps it accurately positioned during the other processes. The lens is then surfaced: the modification

of the rear lens surface to the required prescription. Important considerations in this process are: accurate curvature, prism and thickness. The surfaced blank is then fined and thereafter polished. The polished blank now has the required prescription on its surfaces, which are optically perfect. Finishing consists of re-blocking, edging, tinting and placing the lenses in the frame. Poor surfacing results in an inaccurate prescription and loss of optical clarity. Edging cuts the blank to accurately fit in the frame and provides an appropriately placed bevel on the edge of the lens so it will remain fixed in the frame with the proper location of the optical centre with reference to the position of the pupil. On completion of the manufacturing processes the frames must be accurately fitted on the patients face with considerations of comfort, appearance and style.

### Medicinal Foods of St Vincent

J Bacchus

**NO ABSTRACT**

---

### Birds of Trinidad and Tobago

HL Vaughan

20/20 Vision Ltd, 1 Lismore Avenue,

Kingston 5, Jamaica, West Indies

Trinidad and Tobago are in the Caribbean Sea but their flora and fauna reflect their proximity to South America. Their birds are a reflection of South American jungles. These range from their seventeen species of hummingbirds

to the exotic toucans and amazing tanagers. The Scarlet Ibis which is the national bird of Trinidad and the *Rufous Vented Chachalaca*, the national bird of Tobago, are examples of the diversity in size and colouring which characterizes their birds. Asa Wright Nature Centre and Pointe-a-Pierre Wild Fowl Trust are sterling examples of bird conservation and ought not to be missed on your next visit to Trinidad and Tobago. The presentation shows a selection of examples photographed by the author.

### **The Year I was a Rotary Club President**

*D Singh*

*Caribbean Eye Institute*

*2 Lukuni Road, Valsayn South,*

*Trinidad, West Indies*

Being a Rotary Club President was a daunting and exciting proposition. The oldest service organization in the world with an unparalleled record, Rotary would celebrate its 100<sup>th</sup> Anniversary in my year as President. Internationally one of the most impressive initiatives has been the Polio Eradication Drive which has raised almost US\$600m.

The Rotary Club of St Augustine's 37-year history of service includes:

- § Establishment of a Renal Unit at the San Fernando General Hospital.
- § Gift-of-Life programme-sponsoring needy children for open heart surgery.
- § Artificial "Jaipur leg" project.
- § Pacemakers for indigents.
- § Spearheading raising district funds for "Polio Plus".
- § Others on an individual needs basis.

The demands:

- § Time
- § Finances
- § Managing 40 strong personalities, independent

thinkers, each a leader in his field, usually his own boss

Highlights:

- § Over US \$3 000.00 to Grenada
- § US \$2 000.00 to Guyana
- § US \$3 000.00 to three fishing families in South India
- § Centenary celebration
- § Record fund raising
- § All major projects performed well – assistance to the value of over TT \$3m
- § Good fellowship
- § Focus on youth and family

Disappointments:

- § Lack of volunteerism
- § Resignation of two officers
- § Lack of secretarial assistance
- § The anachronistic stance on regulations, constitution and ceremony

The year outside of Rotary saw:

- § Growing crime rate in Trinidad and Tobago
- § Deterioration in the behaviour in schools
- § Challenges in business
- § Two friends, medical colleagues, facing serious legal challenges
- § Passing of my dear mother whom I appreciate more each day since
- § My grandson formulating his first words and navigating his first steps

I learned more about friendship and grew to appreciate that, of our qualities, true friends "keep what is worth keeping and, with a breath of comfort, blow the rest away".

The Year I was a Rotary Club President will always be one of the more memorable years of life.

## Ethics in Ophthalmology

Chairperson: GA Taylor

---

Thursday July 7, 2005

### Ethics in Ophthalmology

GA Taylor

Clinic Building, Cornwall General Hospital

510 – 520 Second Street East

Cornwall, Ontario, Canada K6H 1Z6

This very important topic will cover the various aspects of the code of ethics. The American Academy of Ophthalmology offers a very concise explanation of the code of ethics and this will be used as a guideline. Hopefully following discussions, OSWI will be able to set up guidelines pertinent to the practice of ophthalmology in the West Indies and Caribbean.

The topics to be covered are:

#### A. PRINCIPLES OF ETHICS

1. Ethics in Ophthalmology
2. Providing Ophthalmological Services
3. Competence of Ophthalmologist
4. Communication with Patients

5. Fees for Ophthalmological Services
6. Corrective Actions
7. An Ophthalmologist's Responsibility

#### B. RULES OF ETHICS

1. Competence
2. Informed consent
3. Clinical trials and Investigative Procedures
4. Other Opinions
5. The Impaired Ophthalmologist
6. Pretreatment Assessment
7. Delegation of Services
8. Postoperative Care
9. Medical and Surgical Procedures
10. Procedures and Materials
11. Commercial Relationships
12. Communications to Colleagues
13. Communications to the Public
14. Interrelations Between Ophthalmologists
15. Conflict of Interest
16. Expert Testimony

## Workshop on Refractive Surgery/Cataract

Chairperson: GA Taylor

Thursday July 7, 2005

### Intralase Lasik – Our First Year Experience

W Culbertson

Bascom Palmer Eye Institute

900 NW 17<sup>th</sup> St

Miami, Florida, 33133, USA

We reviewed the experience of the faculty at the Bascom Palmer Eye Institute using the Intralase femtosecond laser to create LASIK flaps from September 2003 to June 2004. The objective was to ascertain the achieved dimensions of the flap as well as the type of complications recorded. We compared this to previous experience using the Moria M2 microkeratome. The results showed that the flap diameter, hinge position and hinge angle always matched the designed configuration. Flap thicknesses were measured using subtraction ultrasound pachymetry. Flap thickness averaged 120 microns (SD = 15.3 microns) with a range of 92 – 153 microns. Complications were mostly minor and included three slipped flaps, diffuse lamellar keratitis and late onset transient photophobia. In all cases, the complications were treated and resolved with retention of good vision. These results will be compared with results with the Moria M2 microkeratome.

### The Effectiveness of Mitomycin-C prophylaxis in LASEK Surgery: The Jamaican Experience

L Vaughan

Imperial Optical Laser Eye Centre

7 Caledonia Avenue,

Kingston 5, Jamaica, West Indies

As experience in LASEK surgery outcomes in the Caribbean setting is gained, the procedure continues to evolve. Corneal scar and haze formation continue to be a significant postoperative consideration. The introduction of mitomycin-C use in at-risk patients, for scar and haze prophylaxis, has contributed significantly to their elimination.

Mitomycin-C is not without its problems in LASEK surgery. As a result, specific nomograms continue to

evolve. These nomograms are intended, when appropriately applied, to make allowances for the tissue altering effect of mitomycin-C on the cornea. This presentation shows the benefits of careful mitomycin-C use in LASEK surgery in Jamaica.

### Our Experience with the Infinity Phaco Machine in Curaçao

A Ramirez

Emmastad Eye Care Center

Oogartsen Praktijk Ramirez

Margrietlaan 12, Willemstad

Curaçao, Netherlands Antilles

The results of our experience with the new Alcon Infinity Phaco machine will be reported.

A new Phaco machine was acquired by the Antillean Adventist Hospital in Curacao in August 2004. A retrospective study concerning the procedures and their outcome will be presented.

### Biometry and Refractive Cataract Surgery

D Singh, T Allan, S Johnston

Caribbean Eye Institute

2 Lukuni Road

Valsayn South, Trinidad and Tobago, West Indies

Refractive lens surgery necessitates a high degree of accuracy in Intraocular Lens (IOL) power calculation because of the high level of expectation among this sub-group of patients. A review of 84 cataract surgeries done in 2004 revealed that A-Scan biometry was accurate in 7% of cases; within  $\pm 0.25D$  in 25%; within  $\pm 0.5D$  in 42%; within  $\pm 0.75D$  in 55%, and within  $\pm 1.0D$  in 70%. A small prospective study of refractive outcome in 30 patients having biometry by partial coherence interferometry (PCI) was conducted. Postoperative refraction was accurate in 7% of cases; within  $\pm 0.25D$  in 34%; within  $\pm 0.5D$  in 61%; within  $\pm 0.75D$  in 71%, and within  $\pm 1.0D$  in 81%.

The predictive value of biometry by PCI seems superior in refractive lens surgery. We have only recently commenced using the technology and have not attained the

level of accuracy reported by others. All patients for whom a PCI reading was achieved were included. Selection was based on degree of cataract, presentation for refractive surgery or noise to signal ratio (NSR). Greater staff experience and a more discerning selection should improve predictability.

### **Orthokeratology “Let’s Get It Straight”**

*S Hédiguer  
Av d’ Ovchy 14, Lausanne,  
Switzerland*

Orthokeratology (OK) is the temporary reduction of myopia by reshaping the cornea with specially designed reverse geometry gas permeable contact lenses. OK lens designs predictably reshape the central corneal height decreasing the cornea central height and shortening the axial length of the eye, as they have a central curve fit flatter than the most flat corneal meridian. Details of the technique will be presented and pros and cons of the methods will be discussed.

## Workshop on External Disease/Oculoplastic Surgery

Chairperson: J Hurwitz

Thursday July 7, 2005

### Entropion and Ectropion – Diagnosis and Treatment

J Hurwitz

Professor and Chair, Ophthalmology and Vision Sciences,  
University of Toronto

Ophthalmologist-in Chief, Mount Sinai Hospital, Toronto  
60 Murray Street, Suite 1-003  
Toronto, Ontario M5G 1X5, Canada

The eyelid tissues stretch and become atrophic with age and, depending on the tissues involved ectropion or entropion may develop. Corneal involvement may be secondary to chronic exposure and/or irritation. Recognition of eyelid pathology is important and can often be best elucidated by eyelid motility testing. Medical treatment is often effective in the early stages. However, if medical measures are insufficient, surgery is usually quite successful. Eyelid surgical procedures for the treatment of ectropion and entropion need to be part of the armamentarium of the comprehensive Caribbean ophthalmologist.

### Floppy Eyelid Syndrome

W Culbertson

Bascom Palmer Eye Institute  
900 NW 17<sup>th</sup> St  
Miami, Florida 33133, USA

We reviewed the presenting features of the human patients with floppy eyelid syndrome (obese men with floppy eyelids and keratopathy) and Bahamian “cracked conch”, (tasty mollusks tenderized by beating with a mallet). In both instances, the supporting structure, either the tarsus of the lid or the foot of the conch is repeatedly mechanically traumatized leading to degradation of the extracellular matrix and structural softening. In the case of the cornea, ectasia and keratitis are observed. In the conch, tasty conch fritters, conch salad and conch burgers are the result. Examples will be presented.

### Prevention and Management of Recurrence in Pterygium Surgery

AL Anduze

St Croix Eye Group Inc,  
US Virgin Islands

Is the persistent congested bulbar conjunctiva after pterygium surgery considered a recurrence? What about the hyperaemic vascularized area at the limbus or the asymptomatic micropterygium on the cornea or the fibrous avascular corneal scar?

Recurrence after pterygium surgery occurs with frequency associated with several gaffes and *faux pas* in the surgical technique as well as associated with high risk factors such as dellen, cornea-scleral injury, previous recurrence, pheomelanin skin, bare sclera, excessive UV exposure and persistent inflammation. Recurrence rates with various techniques and rationale for recurrence are cited and suggestions made for improvements in treatment and maximizing outcomes. The future of low recurrence rate pterygium surgery resides in biotissue grafts with tissue glue.

### The Diagnosis and Management of Epiphora when the Lacrimal Drainage Pathways are Patent

J Hurwitz

Mount Sinai Hospital, Toronto  
60 Murray Street, Suite 1-003  
Toronto, Ontario M5G 1X5, Canada

When a patient presents with symptoms of tearing, the diagnosis that usually springs to mind is that of a blocked tear duct. However, most patients with symptoms of tearing do not have blocked tear ducts and the aetiology is something else. Patients with symptoms of tearing with a patent lacrimal system are classified as having a “functional obstruction,” and treatment can be quite controversial and varied. However, with a careful history and physical examination and, occasionally, the addition of a radiological lacrimal investigation, the diagnosis can be reached and the

appropriate treatment undertaken. This presentation provides a comprehensive overview of the different causes of epiphora, including the oversecretion and decreased elimination of tears, particular eyelid abnormalities, and therapeutic options in those patients with a patent lacrimal system.

### **Ophthalmic Manifestation of Ocular Rosacea**

*GA Taylor*

*Cornwall General Hospital*

*510 – 520 Second Street East*

*Cornwall, Ontario, Canada, K6H 1Z6*

Rosacea is a common chronic inflammatory disease involving the skin of the face, chest and eyes. The disease usual-

ly affects people with light skin but people with dark skin are not exempt. Approximately 60% of patients with rosacea develop related problems affecting the eye (ocular rosacea). The condition is aggravated by changes in body temperature, emotion, hot drinks, alcohol, spicy foods and smoking.

In ocular rosacea, patients commonly have red eyes, dry eyes, and blepharitis. In severe cases, corneal ulceration may occur which could lead to perforation and blindness. Treatment is directed toward lid hygiene, treating dry eyes and/or oral tetracyclines or doxycyclines to decrease the viscosity of the meibomian gland secretions.

## Glaucoma

Chairperson: C Gibbons

Friday July 8, 2005

### Bleb Needling and Subconjunctival 5-Fluorouracil Following Trabeculectomy with Mitomycin C – Report of Four Cases

D Murray

Lecturer in Ophthalmology

The University of the West Indies

St Augustine, Trinidad and Tobago, West Indies

To report the outcome of bleb needling and subconjunctival 5-fluorouracil in four patients following trabeculectomy with mitomycin C. Two patients were pseudophakic. One patient had filtration surgery combined with phacoemulsification and intraocular lens implant. The other had phacoemulsification with intraocular lens implant prior to trabeculectomy. Two patients each had one needling procedure and two patients underwent the procedure twice.

Three patients had primary open angle glaucoma. One patient had a history of uveitis with secondary angle closure glaucoma. Patients were 29 to 80 years of age (mean 56.75 years). Three patients were of African descent and one patient of East Indian descent. The needlings were performed under sterile conditions in the operating theatre with the aid of an operating microscope. All procedures were done under topical anaesthetic. Phenylephrine 2.5% was instilled 5–10 minutes before the procedure, to induce vasoconstriction of conjunctival blood vessels. A 30-gauge needle was introduced into the subtenon's space 10 mm posterior to the superior limbus. The needle was advanced anteriorly and the scleral flap lifted and needled until a new filtration bleb was formed. The needle was then advanced further until the sclerostomy was entered and the tip visualized in the anterior chamber. The subconjunctival space anterior to the scleral flap was also needled. The 30 gauge needle was withdrawn and reused to inject 5-fluorouracil into the subconjunctival space. In two patients, viscoelastic was injected subconjunctivally, prior to 5-fluorouracil.

Pre-needling intraocular pressures (IOPs) in four patients ranged from 21 to 48 mmHG (mean 36 mmHG). One of four patients was on two glaucoma drops. Intra-ocular pressures on the first day post-needling ranged from 2 to 6 mmHg (mean 4mmHg). Intraocular pressures were 19

and 32 mmHg (mean 25.5 mmHg) prior to the second needling procedure in two patients. These two patients were on an average of 3.5 glaucoma drops with one patient also on acetazolamide tablets. Intraocular pressures on day 1 post-needling were 6 and 9 mmHg (mean 7.5 mmHg). Final intraocular pressures in the four patients ranged from 12 to 21 mmHg (mean 17 mmHg). Time between final needling and last recorded intraocular pressure ranged from 2 to 55 weeks (mean 19 weeks). One patient was restarted on two glaucoma medications following needling. No patient required acetazolamide tablets to control intraocular pressure after the needling procedures. Bleb needling with subconjunctival 5-fluorouracil can restore bleb function with corresponding improvement in intraocular pressure and reduction in the amount of medication (topical and/or systemic) needed for adequate intraocular pressure control.

### Ahmed Valve Implant in Resistant Glaucoma: Case Series

AS Bobart

The Professorial Unit

The Royal Victoria Eye and Ear Hospital

Adelaide Road

Dublin, Ireland, D2

This audit evaluated our experience, between 1998 and 2004, with the Ahmed valve implant in 14 eyes with glaucoma that was resistant to either maximum medical and/or conventional surgical therapy. Two of the 14 patients had congenital glaucoma. The others had adult onset glaucoma in association with aniridia, Fuch's heterochromic cyclitis, angle closure glaucoma, uveitis, diabetes mellitus, retinal detachment surgery and trauma. Post-implantation, the patients were commenced on topical steroid or topical NSAID, topical antibiotic and a dilating drop. Most were encouraged to perform ocular massage at least twice daily.

We have observed three complications. One patient underwent tube repositioning after developing a localized area of corneal decompensation secondary to endothelial touch. In another patient, the bleb became uncomfortably large and encysted and was successfully needled. The third patient, had slippage of the tube and this patient also devel-

oped a small dellen just anterior to the bleb. The tube was subsequently repositioned.

An intraocular pressure of 5-22 mmHg with or without the use of topical anti-glaucoma medication was determined to be either a qualified success (six patients) or an absolute success (seven patients) respectively. One patient in the case series can be defined as a failure (IOP > 22 mmHg on maximal topical therapy). None of the patients in our series exhibited hypotony or diplopia on any single visit, nor was there a need for repeat implantation or cyclodestructive procedures. The authors conclude that this device is both safe and effective for the treatment of resistant glaucoma.

### **Optic Nerve Assessment – the new technology**

*HL Vaughan*

*20/20 Vision Ltd, 1 Lismore Avenue,  
Kingston 5, Jamaica, West Indies*

Glaucoma damage is determined by evidence of optic nerve damage. Functional evidence is provided by visual field analysis while structural evidence is provided by examination of the optic disc and nerve fibre layer. Ophthalmoscopy provides clinical evidence of optic nerve damage in the form of pallor, cupping and nerve fibre layer structural change. Scanning laser polarimetry, confocal laser ophthalmoscopy, optical coherence tomography, are newer methods of assessment of the structural damage. The paper examines the principles underlying each method and looks at their advantages, limitations and disadvantages. Of concern with each method are the validity of the databases which are used to determine normalcy of any one examination and the ability to compare changes in serial examinations. All methods offer potential improvements in making the diagnosis of glaucoma earlier in the disease process but high cost, continued evolution of the technology and relative effectiveness of each method are factors which prevent their widespread adoption in practices in the West Indies.

### **Ulceration of the Optic Nerve**

*DC Gibbons*

*Queen Elizabeth Hospital  
St Michael, Barbados*

Open Angle Glaucoma (OAG) is the commonest cause of irreversible blindness in the world and leading cause of blindness in the Caribbean. There is evidence from family history studies suggesting a hereditary element in its aetiology. Further, seven or more genetic loci have been found to be associated with OAG. However the low concordance rate among monozygotic twins suggests that exogenous factors are also involved. The prevalence in spousal pairs is higher than would be expected by chance. This is in line

with other genetic diseases such as some muscular dystrophies which require an infectious agent to precipitate the disease. The possible role of pathogens in other conditions *eg* atheroma has been recognized. The role of *H pylori* in peptic ulceration is well established. Forty patients with OAG and age-matched controls underwent gastric mucosal biopsies to detect *H pylori* by histological analysis and urease test. Saliva samples were also investigated by CLO test. Serum anti-*H pylori* special IgG were analyzed by enzyme linked immunoassay. *H pylori* positive patients received triple therapy and were observed for two years while receiving the same antiglaucomatous therapy. *H pylori* was detected in 88% of glaucoma patients and 47% of controls. *H pylori* was eradicated in 83% of treated patients. At two years, mean intraocular pressure was improved in the subgroup of patients where *H pylori* was eradicated but not in the other patients. *H pylori* is known to crossreact with ciliary body epidermal antigens and *H pylori* induces vascular dysfunction and apoptosis in gastric mucosa by mechanisms similar to those reported in the trabecular meshwork and other ocular tissues.

### **Optical Coherence Tomography Use in Glaucoma Detection and Monitoring – Our Experience – Part I**

*S Johnston, D Singh, T Allan*

*Caribbean Eye Institute*

*2 Lukuni Road*

*Valsayn South, Trinidad and Tobago, West Indies*

The Retinal Nerve Fibre Layer (RNFL) is the earliest structure to show glaucomatous change but it is the most difficult to evaluate. We sometimes can visualize RNFL defects on stereoscopic retinal photography but newer technologies provide more reliable results. One of these is optical coherence tomography (OCT). The results are evaluated with other factors such as family history, past medical history, pachymetry, visual field testing and optic nerve imaging to determine if a patient has glaucoma and to monitor efficiency of treatment. The Caribbean Eye Institute obtained an OCT machine over one year ago. We have found that we are detecting glaucoma and its progression earlier and also that some patients who were considered to be ocular hypertensive do really have glaucoma. Some of our earlier results will be presented here.

### **Macular Imaging using Optical Coherence Tomography – Part II**

*T Allan, D Singh, S Johnston*

*Caribbean Eye Institute*

*2 Lukuni Road*

*Valsayn South, Trinidad and Tobago, West Indies*

Optical Coherence Tomography (OCT), although in its infancy, has revolutionized the way the macula is visual-

ized. The architecture of the macula can now be seen. This presentation will show some images of the macula and showcase the use of the OCT in a case presentation of a dia-

betic patient who had chronic cystoid macula oedema and intravitreal triamcinolone.

## Surgical Ophthalmology

Chairperson: D Singh

Friday July 8, 2005

### Regional or Topical Anaesthetics for Open Globe Injuries

S Gayer

University of Miami  
Miller School of Medicine  
Miami, Florida, USA

Although regional anaesthesia is the principal method of accomplishing anaesthesia for ophthalmic surgery patients, this option has been contraindicated in patients with penetrating eye injuries owing to the potential to extrude intraocular contents *via* force generated by local anaesthetics. Needle instrumentation of the orbit, squeezing of the eyelids and pressure due to potential haemorrhage are additional reasons regional anaesthesia is typically avoided in open-globe scenarios. Nonetheless, some anecdotal case reports of successful use of ophthalmic blocks in this setting have been published. Recognizing that there are multiple distinct permutations of eye injuries, we have developed techniques to block patients with select open-globe injuries safely.

In a five year period, 220 disrupted eyes were repaired *via* regional anaesthesia at Bascom Palmer Eye Institute. A significant number of injuries were caused by intraocular foreign bodies and dehiscence of cataract or corneal transplant incisions. Blocked eyes tended to have more anterior and smaller wounds than those repaired *via* general anaesthesia. There was no outcome difference, defined as comparative change of visual acuity from initial evaluation until final examination between the eyes repaired *via* regional *versus* general anaesthesia. A similar, more recent, retrospective review of open-globe injury cases at Bascom Palmer Institute's Anne Bates Leach Eye Hospital revealed similar findings. Moreover, combined topical anaesthesia and sedation for selected patients with open-globe injuries has also been reported.

### Corneal Graft Rejection: Diagnosis, Treatment and Prevention

HK Soong

University of Michigan,  
WK Kellogg Eye Center  
Ann Arbor, Michigan, USA

Immunological corneal graft rejection occurs in 10 to 20% of penetrating keratoplasties and may result in irreversible endothelial damage and stromal oedema due to graft failure. This may be averted in the majority of rejections if the immune reaction is diagnosed early and treated aggressively. It is crucial, thus, for the physician to be thoroughly familiar with signs of immunological rejection in the transplanted cornea, so as to be able to render immediate and aggressive therapy to prevent the development of irreversible damage. The clinical signs of corneal graft rejection, existent anti-rejection therapies, preventive measures and risk factors will be presented. The efficacy of antigen-matching, cyclosporine A and newer experimental therapies will be discussed.

### Corneal Ectasia after Posterior Lamellar Keratoplasty: Mathematical Model and *In Vivo* Experience in Rabbit Using Femtosecond Laser

HK Soong, G Djotjan, S Mian, T Juhasz

University of Michigan  
Ann Arbor, Michigan, USA

Posterior lamellar keratoplasty (PLKP) is an alternative to penetrating keratoplasty for corneal diseases involving only the endothelium. Its advantages include a reduction of surgically-induced refractive error, instability, suture-related problems and wound dehiscence. Its main disadvantage is its surgical difficulty and complexity. In live-rabbit experiments using the high-precision femtosecond clinical laser to cut the posterior lamellar corneal buttons, we encountered a new potential problem of corneal ectasia and subsequent severe postoperative myopia due to iatrogenic keratoconus. In PLKP, this occurs when the thickness of the host anterior cornea is less than 200  $\mu\text{m}$ , somewhat akin to

the mirror converse of what occurs when the remaining posterior corneal bed is excessively thin after LASIK. Refractive change and ectatic corneal weakening after PLKP are mathematically analyzed using finite-element modelling. This theoretical analysis suggests that as long as the host anterior stromal thickness is  $> 375 \mu\text{m}$ , the surgically-induced refractive error is  $< 1$  diopter and the chance of ectatic corneal bulge is extremely remote.

### **Post Cataract Optical Coherence Tomography of the Macula**

*D Singh<sup>1</sup>, S Johnston<sup>1</sup>, T Allan<sup>1</sup>, S Rampersaud<sup>2</sup>  
Caribbean Eye Institute<sup>1</sup>, Trinidad and General Hospital<sup>2</sup>,  
Port of Spain, Trinidad and Tobago, West Indies*

**Objective:** To examine Macula scans using Optical Coherence Tomography (OCT) to identify Cystoid Macula Oedema (CME) following cataract surgery.

**Design:** Prospective, non-comparative case series.

**Participants:** Thirty-five patients undergoing cataract surgery.

**Method:** Macula scans were done on 35 consecutive patients having cataract surgery between January 14 and March 21, 2005. Scans were to be done at three to five weeks postoperative. Repeat scans would be done at six weeks if pathology were identified or if clinical signs of macula changes occurred. Scans were done between three to five weeks postoperative in 33 (91%) patients and two months postoperative in three (9%).

**Results:** Thirty-two patients had Phacoemulsification Cataract Extractions (PECE), three having Extracapsular Cataract Extractions (ECCE). Intraocular lens type used: 17 Silicone; 15 Acrylic and three Polymethylmetacrylate. There were 12 males and 23 females with age ranging from 51 to 79 years (average: 69). Seventeen were left eyes and 18 were right. Six patients had diabetes mellitus (DM), four of them were also hypertensive (HBP).

Visual outcome:  $\leq 20/30 - 84\%$ ;  $\# 20/40 - 87\%$ ,  $\# 20/50 - 12\%$ . Those with vision  $\# 20/50$  comprised of two with PCOs, one significant corneal scar from previous pterygia and one with CME.

Cystoid Macula Oedema was identified in one patient (DM, HBP) who had uncomplicated surgery by Phacoemulsification. Two patients had macula changes related to DM and posterior vitreous detachment was noted in another two.

**Discussion:** The occurrence of post-cataract extraction CME is variable and detection rate depends on method of examination. This series detected a 3% incidence of CME by OCT between three to ten weeks postoperative. We were also able to follow the resolution of CME in the affected

patient. Improved technique and the use of topical steroids and non-steroidal medication may play a role in the low rate of CME compared to earlier studies. One appreciates the small size of this study.

### **Amniotic Membrane in Ophthalmology**

*GA Taylor  
Cornwall General Hospital  
510 – 520 Second Street East  
Cornwall, Ontario, Canada, K6H 1Z6*

In 1910, Davis was the first to report the use of fetal membranes in skin transplantation. In 1913, Sabella used amniotic membrane on burned and ulcerated skin surfaces and observed lack of infection, decrease in pain and increased rate of re-epithelialization of traumatized skin surface. Amniotic membrane use has also been reported to be effective as a biological dressing for open wounds including burns and chronic ulceration of the legs. In 1940, De Roth was the first to use amniotic membrane transplantation in ophthalmology with partial success in treating conjunctival epithelial defects in repairing symblepharon. In 1946, Sorsby and Symons reported successful treatment of caustic burns of the conjunctiva and cornea with amniotic membrane. In 1995, Kim and Tseng used amniotic membrane transplant for ocular surface reconstruction of severely damaged corneas in a rabbit model. Since then amniotic membrane transplant has been used for persistent corneal epithelial defects, neurotropic corneal ulcers, leaking filtering blebs after glaucoma surgery, pterygium surgery, conjunctival surface reconstruction, bullous keratopathy, chemical or thermal burns, ocular cicatricial pemphigoid and Stevens-Johnson syndrome.

Amniotic membrane has properties that are helpful in wound healing, particularly of ocular injuries. Amniotic membrane contains an avascular matrix that inhibits blood vessel growth in adjacent tissues, decreases cell death and promotes differentiation and cellular migration to the affected areas. It exhibits anti-inflammatory properties and suppresses expression of transforming growth factor, minimizing scar tissue during the healing process. Because amniotic membrane does not express antigens, it reduces the risk of an immune-mediated reaction to the transplanted tissue and decreases the need for immunosuppressive drugs. Amniotic membrane has also been used as a substrate for growth of autologous limbal epithelial cells and subsequent transplantation in patients with ocular surface disorder and stem cell deficiency. This diminishes rejection and the need for immunosuppressive medications. Amniotic membrane transplantation techniques will be presented.

### **New Techniques in Corneal Transplantation**

*E Alfonso*

*Bascom Palmer Eye Institute*

*900 NW 17<sup>th</sup> Street*

*Miami, Florida, 33136, USA*

Corneal transplantation is undergoing tremendous changes in techniques. This lecture will discuss anterior lamellar keratoplasty with the use of the laser and no sutures, shaped penetrating keratoplasty and endothelial transplantation. We will also present the use of Boston Artificial Cornea for patients with multiple graft failures.

### **Current Treatment of Bacterial Corneal Ulcers**

*E Alfonso*

*Bascom Palmer Eye Institute*

*900 NW 17<sup>th</sup> Street*

*Miami, Florida, 33136, USA*

The treatment of bacterial corneal ulcer is constantly changing as bacterial microorganisms change their sensitivity pattern to antibacterials. In addition, new antibacterials are developed that are broad spectrum and potent. Antiseptics may play a role in treatment as well as suppression of the inflammatory response.

## Medical Ophthalmology

Chairperson: AL Anduze

Saturday July 9, 2005

### Uveitis Pearls

CL Cowan, Jr

Georgetown and George Washington

Washington, DC Veterans Administration Medical Center

1603 Van Buren St, NW

Washington DC, 20012, USA

Uveitis represents a spectrum of ocular inflammatory disorders that involve the uveal tract either primarily or secondarily through the involvement of contiguous structures. It can be classified as anterior, intermediate, posterior, or pan uveitis depending on the location of the inflammation, but is more often identified according to the ocular structure(s) involved. The diagnosis of specific uveitis syndromes is made through a combination of pattern recognition, associated systemic signs and symptoms, and appropriately targeted laboratory and imaging studies. The routine use of a broad panel of laboratory tests is discouraged as the non-specificity of many tests may lead to misdiagnoses and delay the initiation of correct therapy. The mainstay of treatment remains the use of corticosteroids due to their multiple effects on the inflammation cascade and their rapid onset of action. Steroids can be associated with a variety of local and systemic side-effects that may limit their effectiveness, and other immunosuppressive or immunomodulatory agents are often combined with them when chronic therapy is required. This may allow the use of a lower dose of each agent and thus reduce the risk for side effects. In spite of the potential morbidity associated with uveitis treatment, the judicious use of aggressive anti-inflammatory therapy will significantly improve visual outcomes in patients with uveitis.

### Visual Phenotype of Multiple Sclerosis in the Afro-Caribbean Population and the Influence of Migration to Metropolitan France

H Merle<sup>1</sup>, A Donnio<sup>1</sup>, D Smadja<sup>2</sup>, M Bonnan, S Olindo<sup>2</sup>,

R Richer<sup>1</sup>, A Signate<sup>2</sup>, P Cabre<sup>2</sup>

Service d'Ophthalmologie<sup>1</sup>, Service de Neurologie<sup>2</sup>

Centre Hospitalier Universitaire de Fort de France

Hôpital Pierre Zobda-Quitman, BP 632

97261 Fort de France, Cedex

Martinique, French West Indies

**Purpose:** To describe the visual phenotype of multiple sclerosis (MS) in the Afro-Caribbean population living in Martinique (French West Indies). To specify the influence of the migration to Metropolitan France on ocular impairment.

**Design:** Prospective consecutive observational case series.

**Methods:** A complete ophthalmological examination was performed.

**Participants:** There were one hundred and twelve patients of Afro-Caribbean origin with multiple sclerosis satisfying McDonald's diagnostic criteria. They were divided into 53 cases (47.3%), the non-migrant patients (group NM) who had never left the Caribbean basin, and 59 cases (52.7%), the migrant patients (group M), who had lived in Metropolitan France for at least one year before the age of 15 years.

**Results:** Multiple sclerosis first manifested as an impairment of the optic nerve in 41 cases (36.6%): 25 cases (47.1%) in group NM and 16 cases (27.1%) in group M. Visual function was recovered in 13/25 cases (52%) in group NM compared to 13/16 cases (81%) in group M. Two-thirds of patients presented with clinical ocular impairment which was bilateral in 58.5% of NM cases. Fourteen cases (12.5%) met the criteria of neuromyelitis optica, 9 cases (17%) in group NM and 5 cases (8.5%) in group M. In group NM, when the initial visual attack did not regress, the visual Expanded Disability Status Scale (EDSS) score was  $5 \pm 1.5$ ; 75% of patients had monocular blindness and 50% binocular.

**Conclusion:** In the non-migrants (group NM): multiple sclerosis manifested more frequently with an optical neuropathy, the ocular impairment was more severe and corres-

ponded to *neuromyelitis optica* in 17% of the cases; a visual presentation and the absence of complete recovery from the first attack represented a factor of poor prognosis. This series is the largest description of the visual phenotype of multiple sclerosis in patients of African origin. The result confirms the preferential impairment of the optic nerve in the black population in the course of the disease. The migration towards an area of high prevalence of multiple sclerosis influences the visual phenotype in terms of a lower incidence and less severe prognosis of ocular impairment.

### **Sarcoidosis – Ocular Manifestations in the USA Belt I and II**

*JC Merritt*

*Hoerbal Eye Health*

*Clinton, North Carolina, USA*

Sarcoidosis, a granulomatous disease of diverse aetiologies, occurs in individuals whose immunogenetic propensity makes them susceptible to environmental antigens. Demographic characteristics show striking preponderance in young Afro-Americans, especially within the geophysi-

cal characteristics (Sarcoidosis Belt). Pine products (burning or chewing) along with textile/tobacco employment history was associated with ocular sarcoidosis. Significant physical finding in the conjunctiva (histopathologic correlations), anterior segment with chamber angle inflammatory changes, and optic nerve/retina will be correlated with therapeutic interventions in Afro-Americans at risk for visual loss from the acute retinopathy of sarcoidosis.

### **Retinal Venous Occlusive Diseases**

*PA Edwards, U Desai*

*Henry Ford Health System*

*Detroit, USA*

Retinal vein occlusions present as significant causes of visual disability in patients with retinal-vascular disease. The medical and surgical management of these diseases have changed over the last five years with advancing technology. These new medical and surgical options for patients may offer improved outcomes. The use of new diagnostic equipment such as Ocular Coherence Tomograms allow us to visualize significant changes in macular anatomy which coincide with visual function and allow monitoring of the interventions.

## Paediatric Ophthalmology

*Chairperson: S Johnston*

*Saturday July 9, 2005*

### **“So What Colour Are My Baby’s Eyes?”**

*ER O’Malley*

*Henry Ford Health System*

*Grosse Pointe Park,*

*Michigan, USA*

Perhaps, although the least important feature of the human visual system, almost nothing captures the imagination of parents as much as eye colour. Eye colour is reviewed in the light of applicable biochemistry, physics and colour theory. The time honoured single gene pair theory of eye colour is debunked in the light of recent advances in genetics.

### **Retinopathy of Prematurity**

*J Smith*

*Suny Downstate Medical Center,*

*450 Clarkson Avenue,*

*Brooklyn, New York, USA*

Retinopathy of prematurity (ROP) is vaso-proliferative retinopathy occurring principally in premature infants. It is still a major cause of childhood blindness worldwide. The pathophysiology and natural history of ROP will be reviewed and the most recent clinical studies will be discussed in detail.

### **Advanced Strabismus Surgical Techniques**

*J Smith*

*Suny Downstate Medical Center,*

*450 Clarkson Avenue,*

*Brooklyn, New York, USA*

Strabismus, or abnormal ocular alignment, is one of the most common eye problems encountered in children. It is

an important cause of visual and psychological disability. Most general ophthalmologists are fairly comfortable with basic horizontal muscle surgery. Discussion will focus on techniques and indications for adjustable sutures, oblique muscle surgery, transposition procedures and faden sutures.

### **Building the Paediatric Eye Care Capacity of the Bustamante Hospital for Children in Jamaica**

*J Mcleod-Omawale*

*ORBIS International*

*861 Glendora Road,*

*Poinciana, Florida 34759, USA*

Orbis International Inc, (ORBIS) in collaboration with the Ministry of Health, Jamaica, has entered into a partnership to improve the eye care capacity of the hospital. The goal of the project, over its three-year duration, is to contribute to the reduction of blindness and visual impairment in children, by developing the capacity of the hospital to deliver expanded services, and training programmes for ophthalmic providers. The opportunity to improve knowledge and skills base will be offered to various categories of ophthalmic service providers including residents, nurses and biomedical engineers. The infrastructural improvements and academic training will form the basis for continued development of the institution. It is anticipated that the local governing body will be able to continue the process to maintain the standard of medical care once the project formally ends. In addition, it is hoped that the Bustamante Hospital for Children will serve as a centre of excellence and referral for the Island of Jamaica as well as neighbouring Caribbean territories, and as a model of ORBIS and governmental cooperation and partnership.

## Clinical Ophthalmology

Chairperson: CL Cowan, Jr

Saturday July 9, 2005

### Herb-Drug Interactions

*AL Anduze*

*St Croix Eye Group*

*US Virgin Islands*

Using the evidence-based clinical efficacy of herbal medicines and dietary supplements (DSHEA Act of 1997) some common botanicals are presented along with their actions, uses and interactions, both beneficial and adverse, with conventional drugs. A clinical herbal screening form and reference table will be provided.

Herbal medicines ("Bush Teas" in the Caribbean) can have strong anticoagulant effect through anti-platelet activity or by influencing concurrent medications such as Coumadin and Paxil and direct ocular, hepatic and immunosuppressive effects which may prompt their discontinuation prior to surgery.

The audience will be able to assess medications and herbal interactions that may put patients at risk or would bring significant benefits to their health.

### Ophthalmology in the Dominican Republic: Then and Now

*JF Battle*

*Centro De Microcirugia*

*Calle Fantino Falco No 3, Naco*

*Santo Domingo, Dominican Republic*

The Dominican Republic with a population of 8.5 million people shares the island of Hispaniola with Haiti. The prevalence of blindness is 0.45% according to the blindness survey of 1995. Cataract is the leading cause of blindness and limited financial resources remain as the main obstacle to curative surgery. Glaucoma is the second leading cause of blindness followed by diabetic retinopathy and corneal

leukoma. Blindness prevention strategies have changed the outlook for the people of this impoverished country.

### Cataract Liquefaction Techniques and Wavefront Acrylic Intraocular Lens Correction

*MA Santiago*

*Instituto de Ojos y Piel*

*65 Infantry Avenue Km 12.3,*

*Carolina, Puerto Rico 00985*

The author will describe the basic principles involved in Alcon's Infinity Aqualase System and will share his techniques for the removal of fairly dense cataracts and Nuclear Sclerosis 3+. The second part of the presentation will address the principles and benefits of the new High Order Aberration Free Acrysoft lenses and the surgical techniques involved in their implantation.

### All Laser Custom Lasik Vision Correction

*MA Santiago*

*Instituto de Ojos y Piel*

*65 Infantry Avenue Km 12.3,*

*Carolina, Puerto Rico 00985*

The presenter will discuss the most current technologies for LASIK Vision Correction. The first of the two steps of Lasik for years has been performed with a manual microkeratome blade and it is clearly associated with multiple intraoperative complications, some of them vision threatening. The author will present his experience with the Intralase Phentolaser that uses an infrared high speed laser that substitutes the use of the Microkeratome and abolishes all its associated complications. Also the author will talk about the second step of Lasik, the Excimer Laser Vision Correction coupled to the Wavefront Analysis to customize treatments to achieve better-than-ever results taking in consideration Low and High Order Aberrations.

## Index of Participants

---

---

**Alfonso, Eduardo C, MD**

Edward WD Norton Chair in Ophthalmology  
Bascom Palmer Eye Institute, Miami, FL, USA

**Allan, Terrence P, BSc, MB BS, FRCS**

Caribbean Eye Institute,  
2 Lukuni Road, Valsayn South,  
Trinidad and Tobago, West Indies

**Anduze, Alfred L, MD**

Assistant Clinical Professor, University of Florida-  
Jacksonville,  
Associate Fellow Integrative Medicine,  
St Croix Eye Group, Inc, US Virgin Islands

**Bacchus, Junior, DORCS(Eng), MRCOphth(Eng)**

PO Box 482,  
Kingstown, St Vincent, West Indies

**Battle, Juan, MD**

Centro De Microcirugia  
Calle Fantino Falco No 3, Naco  
Santo Domingo, Dominican Republic

**Bobart, Andra S**

Registrar and Lecturer in Ophthalmology  
The Professorial Unit  
The Royal Victoria Eye and Ear Hospital  
Adelaide Road, Dublin, Ireland D2

**Cowan, Claude L Jr, MD, MPH**

Clinical Professor of Ophthalmology,  
Georgetown and George Washington University Medical  
Centers,  
Washington DC, USA

**Culbertson, William, MD**

Professor of Ophthalmology  
Bascom Palmer Eye Institute  
Miami, Florida, USA

**Edwards, Paul A, MD, MB BS, FACS**

Chairman, Department of Ophthalmology and Eye Care  
Services,  
Henry Ford Health System, Detroit, USA

**Gayer Steven, MD, MBA**

Associate Professor of Anesthesiology  
University of Miami, Miller School of Medicine  
Miami, Florida, USA

**Gibbons, D Clive, FRCP, FRCS, FRCOphth**

Queen Elizabeth Hospital,  
St Michael, Barbados, West Indies

**Hediguer, Serge, MD**

Av d' Ovchy 14  
Lausanne, Switzerland

**Hurwitz, Jeffrey, MD, FRCS (C)**

Chairman and Professor of Ophthalmology  
University of Toronto,  
Ophthalmologist in Chief, Mt Sinai Hospital

**Johnston, Sonja, MB BS, FRCS**

Caribbean Eye Institute,  
2 Lukuni Road, Valsayn South  
Trinidad and Tobago, West Indies

**Merle, Harold, MD**

Centre Hospitalier Universitaire de Fort de France  
Hôpital Pierre Zobda-Quitman, BP 632  
97261 Fort de France, Cedex  
Martinique, French West Indies

**Merritt, John, MD**

Sampson Regional Hospital,  
North Carolina, USA

**Murray Desiree, MB BS (UWI)**

Lecturer in Ophthalmology  
The University of the West Indies  
St Augustine,  
Trinidad and Tobago, West Indies

**O'Malley Edward R, MD**

Henry Ford Health System  
Grosse Pointe Park, Michigan, USA

**McGuire Elliot, MB BS, DO, MRCOphth**

Lucas Street,  
St Georges, Grenada, West Indies

**Mcleod-Omawale, Joan**

Director – Latin America and Caribbean Institution  
ORBIS International  
861 Glendora Road  
Poinciana, Florida 34759, USA

**Ramirez, Angelo, MD**

Emmastad Eye Care Centre,  
Willemstad, Curacao, Netherlands Antilles.

**Rampersaud, Sharlene, MB BS**

General Hospital, Port of Spain,  
Trinidad and Tobago, West Indies

**Rodgers, John, FRCS, DABO**

PO Box N386  
Nassau, Bahamas

**Santiago, Miguel A, MD**

Medical Director  
Instituto de Ojos y Piel  
65 Infantry Ave. Km 12.3,  
Carolina, Puerto Rico 00985

**Singh Deo, FRCS, FRCOphth**

Caribbean Eye Institute  
2 Lukuni Road, Valsayn South,  
Trinidad and Tobago, West Indies

**Smith, Janine, MD**

Director Pediatric Ophthalmology  
and Strabismus,  
Sunny Downstate Medical Center,  
450 Clarkson Avenue, Brooklyn, New York, USA

**Soong Hunson Kaz, MD**

Professor of Ophthalmology,  
Division of Cornea, External Disease and Refractive  
Surgery.  
University of Michigan Medical School, WK Kellogg Eye  
Center,  
Ann Arbor, Michigan, USA

**Taylor, Garth A, MSM, CD, MD, BS (UWI), FRCS,  
FACS**

Chief, Department of Ophthalmology, Cornwall, Ontario  
Associate Professor, Department of Ophthalmology,  
Queen's University, Kingston, Ontario, Canada

**Vaughan Hugh L, FRCS**

20/20 Vision Ltd.,  
1 Lismore Avenue, Kingston 5  
Jamaica, West Indies

**Vaughan, Leon, BSc (Hons), MB BS, Dip OPH, (UWI),  
FRCS (Edin)**

Consultant Ophthalmologist  
Imperial Optical Laser Eye Centre  
7 Caledonia Avenue, Kingston 5, Jamaica, West Indies

# *Acknowledgements*

*Alcon Puerto Rico Inc*

*Lenstec Barbados Inc*

*Novartis Ophthalmics*

*Optical Services Ltd*

*Pfizer Corporation*

*Steede Medical Caribbean Ltd*



**Vol. 54: (Suppl 3) 1 – 26**

**July 6 – 9, 2005**

**ISSN: 0043-3144 WIMJAD**

## **Ophthalmological Society of the West Indies**



**16<sup>th</sup> Annual Congress**

**July 6 – 9, 2005**

**Our Lucaya Beach and Golf Resort  
Grand Bahama Island, Bahamas**

---

# OPHTHALMOLOGICAL SOCIETY OF THE WEST INDIES

## Proceedings of the 16<sup>th</sup> Annual Congress, July 6 – 9, 2005

Our Lucaya Beach and Golf Resort,  
Grand Bahama Island, Bahamas



### Editor-in-Chief

*Professor Everard N Barton*

### Congress Committee and Scientific Editors

*Dr Garth Taylor*  
*Dr Elliot McGuire*  
*Dr Terrence Allan*  
*Dr DC Gibbons*

*Dr Sonja Johnston*  
*Dr Deo Singh*  
*Dr Alfred Anduze*  
*Dr Anirudh Mahabir*

*Dr Hugh Vaughan*

### OSWI COUNCIL 2004 – 2006

<i>President</i>	–	<i>Dr Garth Taylor</i>
<i>Vice-President</i>	–	<i>Dr Elliot McGuire</i>
<i>Secretary/Treasure</i>	–	<i>Dr Terrence Allan</i>
<i>Immediate Past President</i>	–	<i>Dr Sonja Johnston</i>
<i>Representatives to Council</i>	–	<i>Dr Deo Singh</i>
		<i>Dr Marlene Smith Day</i>

## **EDITORIAL BOARD**

**Chairman**  
HS Fraser

**Editor-in-Chief**  
EN Barton

**Associate Editors**  
C Escoffery  
GD Nicholson  
H Reid  
R Roberts

**Assistant Editors**  
P Desai  
PJ Ramphal  
D Brady-West  
MO Castillo Rangel

**Deans**  
HS Fraser  
O St C Morgan  
P Pitt-Miller  
H Spencer (Director, UWI Clinical Training Programme)

**Treasurer**  
E Robinson

T Alleyne  
S Bandara  
F Bennett  
LL Douglas  
J Frederick  
F Henry (CFNI),  
J Hospedales (CAREC)  
G Hutchinson  
GC Lalor (ICENS)  
AH McDonald  
EY St A Morrison  
A Pearson  
D Picou

GR Serjeant  
DT Simeon (CHRC)  
MF Smikle

## **Editorial Advisory Board**

B Bain  
B Barnett  
E Besterman  
V Boodhoo  
G Burkett  
H Daisley  
CE Denbow  
LF Ferder  
JP Figueroa  
PR Fletcher  
B Hanchard  
N Kissoon  
PN Levett  
S Marshall-Burnett  
TC Martin  
A McCaw-Binns  
T Seaton  
OR Simon  
WH Swanston  
AAE Verhagen  
RJ Wilks  
B Wint  
R Young

## **PAST EDITORS**

JL Stafford 1951-1955  
JA Tulloch 1956-1960  
D Gore 1961  
CP Douglas 1962  
D Gore 1963-1966  
P Curzen 1967  
RA Irvine 1967-1969  
TVN Persaud 1970-1972  
GAO Alleyne 1973-1975  
V Persaud 1975-1995  
D Raje 1995-1996  
WN Gibbs 1996-1999

---

## **BUSINESS INFORMATION**

**Copyright:** Material printed in the Journal is covered by copyright and may not be reproduced in whole or in part without the written permission of the Editor. Single photocopies may be made by individuals without obtaining prior permission.

**Microform:** The Journal is available in microform from Bell and Howell Information and Learning.

**Abstracting and Indexing:** The Journal is currently included in major abstracting and indexing services.

**Correspondence** should be addressed to:

**THE EDITOR-IN-CHIEF, West Indian Medical Journal, Faculty of Medical Sciences, The University of the West Indies, Kingston 7, Jamaica**

**e-mail:** [wimj@uwimona.edu.jm](mailto:wimj@uwimona.edu.jm), **webpage:** <http://www.mona.uwi.edu/fms/wimj/>

**Telephone (876) 927-1214 Fax (876) 927-1846**

**ANNUAL SUBSCRIPTION:** Overseas US\$150.00 Local J\$8,900.00

*Notes...N*



































