Canadian Eye Care Today

Canadian Eye Care Today 2025 Rising Stars in Ophthalmology

Event Summary Report

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medical minds meet here

In This Report

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Acronyms

AAO	AMERICAN ACADEMY OF OPHTHALMOLOGY
AION	ANTERIOR ISCHEMIC OPTIC NEUROPATHY
AMD	AGE-RELATED MACULAR DEGENERATION
ASCRS	AMERICAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY
CMV	CYTOMEGALOVIRUS
CMPA	CANADIAN MEDICAL PROTECTIVE ASSOCIATION
DED	DRY EYE DISEASE
EBMD	EPITHELIAL BASEMENT MEMBRANE DYSTROPHY
EDOF	EXTENDED DEPTH OF FOCUS
EMR	ELECTRONIC MEDICAL RECORD
FABER	FLEXION, ABDUCTION, EXTERNAL ROTATION
FBS	FOREIGN BODY SENSATION
GATT	GONIOSCOPY-ASSISTED TRANSLUMINAL TRABECULOTOMY
GCC	GANGLION CELL COMPLEX
HIV	HUMAN IMMUNODEFICIENCY VIRUS
HLA-B27	HUMAN LEUKOCYTE ANTIGEN B27
HSV	HERPES SIMPLEX VIRUS
IOL	INTRAOCULAR LENS
IPL	INTENSE PULSED LIGHT
IOP	INTRAOCULAR PRESSURE
KDB	KAHOOK DUAL BLADE
LAL	LIGHT-ADJUSTABLE LENS
MEWDS	MULTIPLE EVANESCENT WHITE DOT SYNDROME
MMP	MATRIX METALLOPROTEINASE
MRI	MAGNETIC RESONANCE IMAGING
MST	MICROSURGICAL TECHNOLOGY
OCT	OPTICAL COHERENCE TOMOGRAPHY

Acronyms con't

PED	**PIGMENT EPITHELIAL DETACHMENT**
RAPD	**RELATIVE AFFERENT PUPILLARY DEFECT**
RPE	**RETINAL PIGMENT EPITHELIUM**
RNFL	**RETINAL NERVE FIBRE LAYER**
SHRM	**SUBRETINAL HYPERREFLECTIVE MATERIAL**
VZV	**VARICELLA-ZOSTER VIRUS**

Medical minds meet here.

We gather thought leaders from around the continent and organize large-scale medical symposia that afford our partners the chance to build relationships with the clinical community and stay up-to-date on the current conversations in multiple disease areas. Ask us how you can be part of our conferences by reaching out to **info@catalytichealth.com**

Welcome & Opening Remarks

CLARA C. CHAN, MD, FRCSC, FACS

Dr. Chan welcomed everyone to the second-annual Rising Stars in Ophthalmology Conference and introduced the meeting's objectives:

- Provide current and high-quality information on the latest developments in the management of ocular disease
- Create collegial learning opportunities to enable clinicians to share real-world experience and to directly apply new insights to their practice
- Foster discussions that allow for the sharing of knowledge and experience among delegates and industry representatives
- Respond to emerging professional needs for specific and in-depth information on the latest treatment approaches for ocular disease in the Canadian market

CLARA C. CHAN, MD, FRCSC, FACS

DEDTalks: Managing Dry Eye for Surgical Clarity

(Sponsored Breakfast Symposium, SUN Pharma)

MILAD MODABBER, MD, MSC, FRCSC, DABO

Dry eye disease is increasingly recognized as a critical factor affecting both routine ophthalmic care and surgical outcomes. One in five Canadians suffers from DED, and many remain asymptomatic despite significant ocular-surface compromise. The disease burden is especially notable in glaucoma, where 50% to 60% of patients concurrently have DED. Long-term exposure to preservative-containing drops—a mainstay of glaucoma therapy—can exacerbate ocular-surface toxicity, reducing patient tolerance for drops and compromising adherence over time.

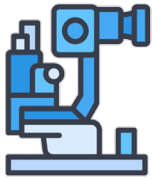
Systemic comorbidities further amplify the risk. Conditions such as diabetes, rheumatoid arthritis, and inflammatory bowel disease are strongly associated with DED. Surgical interventions also contribute to worsening symptoms due to several mechanisms: corneal nerve disruption from incisions, prolonged exposure during surgery, cumulative toxicity from preservative-containing postoperative drops, and phototoxicity from operating microscopes. Hormonal influences are another major driver—approximately 80% of postmenopausal women suffer from DED, reflecting the impact of estrogen decline on meibum quality and aqueous tear production. Considering that DED severity increases with age, it is unsurprising that the PHACO study (*Clinical Ophthalmology*, 2017) found roughly 75% of cataract surgery candidates present with pre-existing DED.

Dr. Modabber emphasized that recognizing and treating DED prior to cataract surgery is essential, both for optimizing refractive accuracy and for maintaining patient trust. Untreated preoperative DED can compromise biometric measurements, induce postoperative visual fluctuations, and necessitate prolonged management. He illustrated this through a challenging clinical case in which a

Simplify the Algorithm: Screen → Test → Treat → Decide

SCREEN
Validated OSD Questionnaires

- OSDI or SPEED, ≤1 min
- Listen for patient-language: *fluctuating vision, worse on screens, glare/halos*

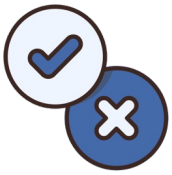


TEST
Examine & Measure the Surface

TBUT
Staining
Osmolarity
MMP-9
Gland evaluation

TREAT
Optimize the Surface

Choose treatment based on severity and subtype



DECIDE
Re-measure the Surface

If discordance in measurements persists = delay and escalate

patient, after cataract surgery, required bilateral photorefractive keratectomy enhancements and ultimately a piggyback IOL—all traceable to unaddressed preoperative dry eye. Beyond clinical consequences, failure to diagnose DED preoperatively can erode patient confidence and raise medicolegal concern; conversely, when DED is properly documented beforehand, patients are far more likely to understand postoperative symptoms as part of their underlying disease rather than surgical error.

To streamline clinical assessment, Dr. Modabber presented a four-step framework for DED management: screen, test, treat, and decide. Screening should begin with validated questionnaires such as OSDI or SPEED, though clinicians should also remain alert to complaints like fluctuating vision, deterioration with screen use, and glare or halos—common presentations in DED. Slit-lamp evaluation should include tear breakup time, corneal staining patterns, and tear meniscus height. He noted that tear osmolarity is increasingly incorporated into routine assessment as an objective measure of disease severity.

Treatment often starts with preservative-free lubricants and lid hygiene, progressing to immunomodulatory therapies as needed. Dr. Modabber advised initiating a short steroid induction to bridge patients while immunomodulators take effect. As evaporative dysfunction and meibomian gland disease improve, underlying aqueous tear deficiency may become more apparent; punctal plugs are valuable at this stage. He acknowledged the role of in-office procedures such as IPL and LipiFlow, while noting that conservative measures should generally precede interventional approaches due to cost and patient risk profiles.

Immunomodulatory therapy forms a cornerstone of long-term management. Agents include cyclosporine 0.05%, cyclosporine 0.09%, and lifitegrast. While combination therapy has not been formally studied, Dr. Modabber noted that some clinicians employ dual immunomodulators due to their complementary mechanisms. Cequa's nanomicelle delivery system enhances corneal penetration and may yield faster clinical improvement, with one study showing reduced staining at 1 week. Notably, a 2021 Clinical Ophthalmology study demonstrated that Cequa can improve preoperative biometry accuracy, reinforcing its relevance in surgical planning.

Dr. Modabber concluded by underscoring that DED management is an integral component of modern cataract surgery. Proactive diagnosis and optimized treatment reduce complications, enhance refractive outcomes, and ultimately improve patient satisfaction.

How to Build Your Own Solo Practice

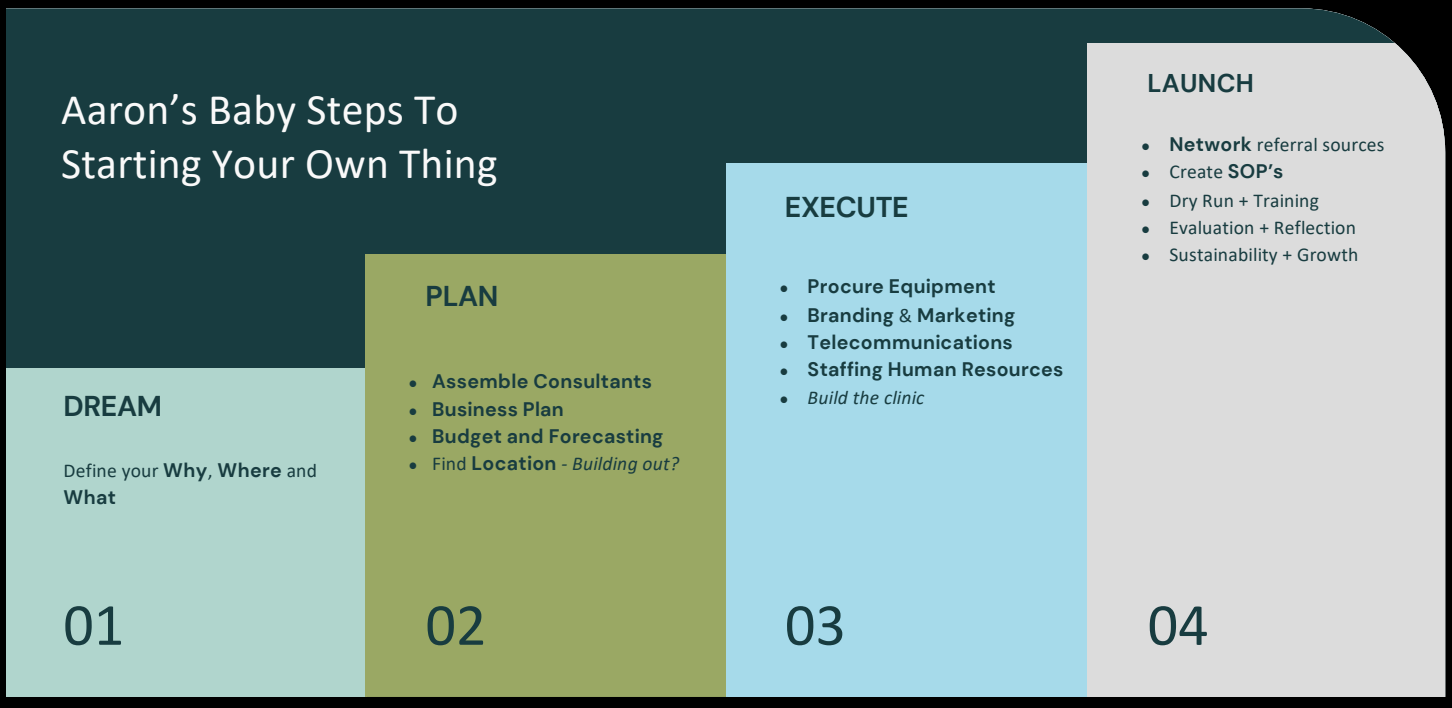
AARON CHAN, MD, FRCSC

When Dr. Chan opened his practice, shortly after his residency, the 800-square-foot clinic included himself, two staff members, and two exam lanes. Within 3 years, the practice, now called Milton Eye Surgeons & Halton Retina Centre, grew rapidly. Two more surgeons joined, a retina division was added, and the clinic grew into a 4,500-square-foot facility with over 10 exam lanes and approximately 15 staff members.

Dr. Chan distilled the process of opening a solo practice into four phases: dream, plan, execute, and launch. While timelines will vary, Dr. Chan said the four phases combined typically require 10 months to a year. In the dream phase, prospective owners should define why they want a practice – they may wish to have greater autonomy and the freedom to innovate, for example. Prospective solo practice owners should also be thoughtful about what they want to specialize in, where they wish to practice (in a more urban or rural area, for instance), their desired patient volumes and proportion of publicly funded versus privately funded care. Finally, the dream phase involves considering the longer-term future: Does the ophthalmologist want to expand and add associates, or remain a solo practice? Will the clinic expand into other areas of care, and at what timelines?

The planning phase centers on building a strong advisory network. Key members include mentors who have previously opened solo practices, a lawyer to oversee incorporation and contracts, an accountant to ensure tax compliance and manage bookkeeping, and banking/brokerage professionals to facilitate loans. Dr. Chan underscored the importance of improving one's financial literacy during this time, including understanding balance sheets, profit-and-loss statements, and small business tax deductions.

Three exercises anchor the planning stage: forecasting monthly operating expenses, budgeting startup costs, and estimating revenue. Although these early predictions will not be accurate, Dr. Chan recommended establishing the habit of tracking expenses and revenue early on to ensure financially sound decisions. An exam lane, typically requiring a slit lamp, chair, stand, tonometry device, and computer workstations, can range from $25,000 to $50,000 depending on whether



equipment is purchased new or used. Diagnostic technology represents a substantial portion of the start-up cost. For example, new OCT units can range from approximately $65,000 to $130,000 and biometry systems range from approximately $45,000 to $125,000. Building a new clinic is more time-consuming and complex than establishing a practice in an already-existing health clinic, as the former requires architects, contractors, designers, and permits.

After the dreaming stage (typically 1 month) and planning stage (typically 2 months) comes the execution phase, which is often the longest phase. In this phase, the ophthalmologist registers and incorporates the business; secures a loan; sets up phone, fax, email, and web domains; purchases an EMR system and equipment; launches bookkeeping software and begins to hire staff. Dr. Chan recommended hiring for character rather than technical skill, as it is possible to train people who have a strong work ethic and integrity. However, unmotivated staff, even if technically proficient, can create toxic dynamics and harm overall morale. While competitive salaries and benefits are important, Dr. Chan stressed that providing staff with a sense of purpose and autonomy are vital to staff retention.

The launch phase begins 1 to 2 months before opening and continues after the clinic opens. New owners should network with local optometrists and family physicians, distribute referral forms, and build visibility through talks and community events. A training manual and clear operating protocols help ensure consistent workflows for different referral types. Dr. Chan ended by emphasizing the importance of protecting one's time for family and self-care.

Pearls for Discussing Non-Insured Surgery and Lens Options with Your Cataract Patients

JAMIE BHAMRA, MD

Patients with cataracts typically arrive fearful, as they are worried about vision loss and complications from surgery. For such patients, Dr. Bhamra recommended validating the medical necessity of the cataract surgery and explaining that the standard lens will meet the patient's goal of regaining their pre-cataract sight. Premium IOLs should then be positioned as an "upgrade" option for those who wish to no longer wear glasses.

Patients wishing to undergo refractive lens exchange, on the other hand, tend to be proactive, but frustrated with having to wear glasses or their declining quality of vision. Refractive lens exchange is not covered by public and most private insurances. Patients have frequently researched the surgery and have formed strong preconceived ideas about the benefits of specific IOL options. While cataract surgery patients are satisfied if they can see better than before, refractive lens exchange patients have less tolerance for an imperfect outcome. For patients undergoing refractive lens exchange, Dr. Bhamra recommended managing high expectations by communicating, "I support your goal to improve your vision, but we must ensure your surgery is safe and that the benefits will last for the long term."

Before refractive lens exchange surgery, Dr. Bhamra recommended performing macular OCT, as epiretinal membranes and age-related macular degeneration are contraindications for multifocal lenses. He also stressed the importance of assessing the cornea shape and health, and measuring the angle kappa, angle alpha and HOAa, as multifocal lenses perform poorly in patients with irregular corneal structures and aberrations.

Dr. Bhamra strongly recommended avoiding premium IOLs in patients with ocular surface instability. Patients should be informed that

Learnings and Pearls

Know your patient - Differentiate the "fearful" cataract patient vs. the "optimizing" RLE

Patient selection / motivation is key - Never compromise on ocular surface, macular health

Out-of-pocket cost → "Investment" in visual freedom

Quote prices per eye for simplicity

Comfort with cost discussion projects confidence (from Coordinator and Surgeon)

Use visuals, videos and stories, defocus curves, halo simulators, side-by-side images

"everyone gets drier" after lens surgery. Therefore, only patients who are motivated to successfully treat their ocular surface – with treatments such as heating the eyelids, lid massage, minimizing screen / books driving use post-operatively for a defined period, blinking regularly, artificial tears, omega 3 supplementation, and topical medications – should proceed with premium IOL selection.

Dr. Bhamra argued that every patient should hear about all lens categories because transparency will reduce the likelihood of future misunderstandings. According to 2024 ASCRS data, 55% of patients will opt for premium IOLs if the surgeon offers them.

When discussing IOL options, Dr. Bhamra recommended emphasizing value over price. The lens should be framed as a life-long or one-time investment in visual function and quality of life, and the cost of the IOL should be contextualized against the 10-year cost of contact lenses and glasses or the cost of hearing aids. Dr. Bhamra tells patients that toric lenses can allow patients to avoid glasses for seeing distance but that patients will require glasses for middle and near vision. EDOF lenses provide "distance and computer vision," but patients will require glasses for near vision. Multifocal lenses, meanwhile, improve "distance, computer, and near vision." Dr. Bhamra recommended emphasizing to patients that near vision is about 33 to 40 cm away from the face; patients will still need glasses for closer tasks, like tying knots with fishing line or making jewellery, for example. When discussing LALs, Dr. Bhamra explains that the lens improves distance, intermediate, and some near vision, but involves significant postoperative restrictions, including the need to wear sunglasses / UV eye protection day and night for ~6 weeks and to return to the clinic for 1-3 adjustments and 2 lock-in treatments.

Dr. Bhamra emphasized that patient satisfaction with their IOL depends on communication. For instance, patients are typically not bothered by starbursts or halos that occur with multifocal lenses, so long as they were informed and educated of this phenomenon ahead of time.

At Dr. Bhamra's clinic, after discussions with the surgeon and surgical coordinator about IOL options, all patients must also sign a form that details the features and costs associated with each lens option to confirm that they have been informed of each option. This not only reduces medicolegal risk but allows the patient to confirm and commit to the specific IOL selection, aligning them with a predictable post-operative result.

Dr. Bhamra concluded by emphasizing the importance of repeating information with multiple touchpoints; presenting all lens options neutrally instead of "selling" patients on a particular lens; emphasizing value over cost; and providing practical counselling that resonates with the patients' interests and lifestyle.

Interventional Glaucoma for the General Ophthalmologist

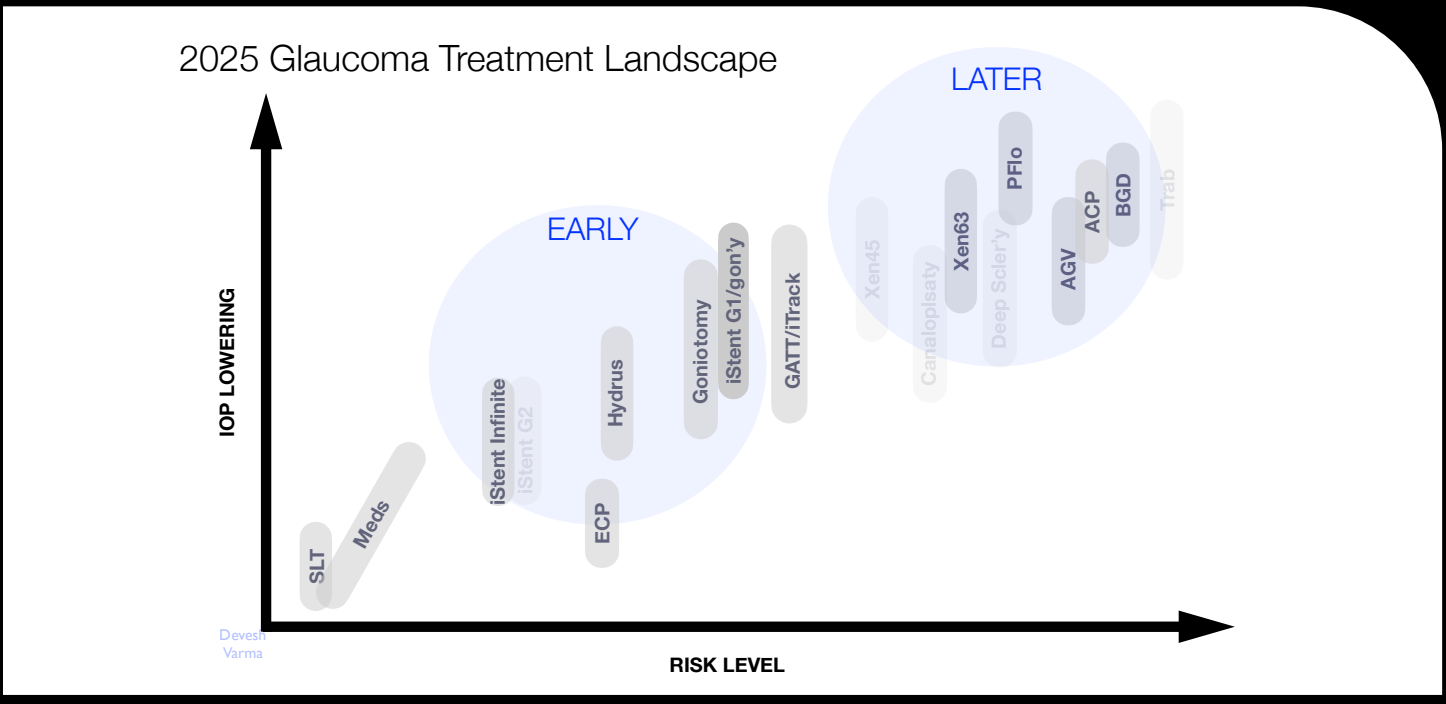
DEVESH VARMA, MD, BENG, FRCSC

Dr. Varma emphasized that Canadian Open Angle Glaucoma guidelines are based on major studies from the 1980s and 1990s that enrolled patients with significant visual field loss to demonstrate the benefit of glaucoma drops. While this approach helped reduce glaucoma-related blindness globally, Dr. Varma argued that, in light of advanced technologies, ophthalmologists should intervene earlier and prevent vision loss.

Because it spares the conjunctiva for future surgery and results in a rapid recovery, a modest IOP reduction is acceptable with minimally invasive glaucoma surgery. Dr. Varma detailed the options for minimally invasive surgery, beginning with the first generation iStent. Even with inexperienced surgeons and a trial design with no washout period, the initial trial nonetheless showed the iStent resulted in modest medication reductions. Later studies demonstrated that multiple stents improved results: two outperformed one, and three was even more effective. The current iStent Infinite delivers three stents. For severe cases, Dr. Varma has also achieved impressive results using a first-generation iStent in combination with extension goniotomy. Sharing the outcomes of 20 patients who underwent this hybrid approach, Dr. Varma explained the approach achieved significant pressure reductions and only one of his patients required reoperation.

The Hydrus microstent, a 3-mm nitinol scaffold, is another minimally invasive surgical option. In the well-designed HORIZON trial, at 2-year follow-up, patients who underwent Hydrus surgery saw a mean 7.6 mmHg reduction in unmedicated diurnal IOP, compared to a 5.3 mmHg reduction in the phacoemulsification group. In the Hydrus arm, 78% of patients were free of topical medications, compared to 48% in the phacoemulsification alone arm.

Moving on to goniotomy options, Dr. Varma highlighted the KDB, which resulted in an 8.5 mmHg mean drop in IOP, according to the pivotal trial published in 2022. He also presented the lower-cost



adaptation of the bent 27-gauge needle. While the bent needle option can work as well as the KDB, Dr. Varma warned that the bent needle is sharper, and requires a more advanced technique to avoid damaging collector channels.

Transitioning to minimally invasive bleb-forming procedures, Dr. Varma reviewed the XEN gel stent. He explained that he uses a primary needling technique to clear tenons, which dramatically reduces scarring. More recently, he adopted a transconjunctival technique using a XEN needle, which significantly reduces the procedure time.

The PreserFlo MicroShunt is an 8.5 mm ab-externo device made of SIBS, an extraordinarily bioinert material that resists fibroblast adherence. Dr. Varma described the meticulous layered dissection and closure required, noting that poor technique leads to device failure. The PreserFlo has dramatically reduced Dr. Varma's need for tube shunts, as the surgery is revisable. Results from a prospective single-arm, 2-year study published in 2022 demonstrated a mean IOP reduction from 21.7mmHg to 14.1mmHg; almost 74% of patients who received the surgery no longer required topical medications.

Dr. Varma explained that the ideal iStent or Hydrus patient is one who requires cataract surgery and is controlled on topical drops but wishes to reduce them, or who has borderline IOP. The ideal goniotomy or GATT candidate is a younger patient who has open angles and can stop anticoagulants; these patients can be phakic or pseudophakic. Those who should undergo a XEN procedure include patients with advanced, uncontrolled glaucoma who require dramatic IOP lowering.

How to Blame the Retina

DEEPA YOGANATHAN, MD, MSC, FRCSC, FASRS

Dr. Yoganathan explained that retinal pathology often reveals itself through specific symptoms, including chronic, bilateral, Amsler grid distortion; central blur or micropsia; and scotoma, which can include artery occlusion, a macular hole, or geographic atrophy.

Dr. Yoganathan presented various OCT images to highlight which cases warrant intravitreal injection. OCT-based indications for intravitreal injection include SHRM, which may represent blood or exudation and often precedes wet AMD that could imminently erupt. She recommended multimodal imaging and close monitoring of these patients. By contrast, "retinal draping" or "retinal tenting" may not be true exudative fluid but rather the retina stretching over a PED. In these cases, Dr. Yoganathan recommended assessing patients' interest in limiting the scotoma before deciding on injections or surgery.

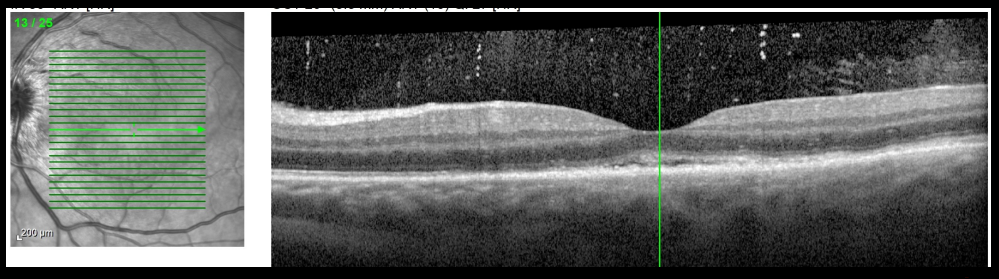
Dr. Yoganathan then presented a classic case of wet AMD requiring injection, including a PED with disrupted RPE, hyperreflective foci, subretinal and intraretinal fluid. She explained that a thicker choroid could indicate central serous chorioretinopathy while a thinner choroid is typically consistent with AMD. She noted that any macular hemorrhage should prompt a same-day or same-week appointment.

Reviewing non-exudative AMD cases that do not require injections, Dr. Yoganathan presented cases involving choroidal hypertransmission, a loss of outer retinal layers, and geographic atrophy. She explained vitelliform lesions can collapse over time and cause atrophy, presenting with choroidal hypertransmission. Using several OCT images, Dr. Yoganathan also presented less common entities that mimic exudative disease but do not require anti-vascular endothelial growth factor injections.

Dr. Yoganathan also provided guidance on differentiating retinal vein occlusion and uveitic cystic macular edema, encouraging ophthalmologists to look for an ischemic inner retina. Dr. Yoganathan presented an OCT image of a branch level vein occlusion, noting that this condition presents with uniformity across the fovea, which distinguishes these cases from diabetic retinopathy. Next, she presented a classic presentation of a central retinal vein occlusion, with

SYPHILIS OUTER RETINOPATHY

1. RPE outer retinal excrescences
2. Autofluorescence – bilateral wreath or placoid
3. Optic nerve inflammation



Do not inject - Emergency room: intravenous Penicillin G, 14 MU, every 4 hours

large amounts of intraretinal and subretinal fluid and a congested nerve that is barely visible and an intact outer retina. These patients have dramatic recurrences post-injection, and require more frequent injections.

In addition, Dr. Yoganathan reviewed diabetic macular edema, highlighting the intraretinal and subretinal fluid, intact RPE, and associated exudates. Diabetic macular edema does not require urgent injections but does require multiple injections over a 3-year period. These patients typically respond slowly.

Presenting images of macular telangiectasia type 2, Dr. Yoganathan pointed to atrophic cysts in the inner retina and intraretinal spaces that do not distort the foveal contour, as well as gaps in the outer retina. These patients should not receive injections.

Dr. Yoganathan emphasized the need to promptly identify retinal vascular emergencies. Central retinal artery occlusion can be subtle on exam but may present with a cherry red spot. This condition is unmistakable on OCT, with marked inner retinal hyperreflectivity. Dr. Yoganathan urged ophthalmologists to initiate aspirin and ensure same-day or next-day neurologic evaluation in these cases.

Next, Dr. Yoganathan presented the characteristic OCT signs of syphilitic outer retinopathy. These include outer retinal "mottling" or excrescences, a bilateral MEWDS-like pattern around the macula on autofluorescence, and optic nerve inflammation. She recommended an urgent emergency department referral, rather than waiting for public health testing for therapy to commence.

Dr. Yoganathan ended with a brief overview of her injection workflow and emphasized that OCT alone, when interpreted systematically, can often provide the information needed for timely referral and appropriate management.

Uveitis Cases

CHLOE GOTTLIEB, MD, FRCSC

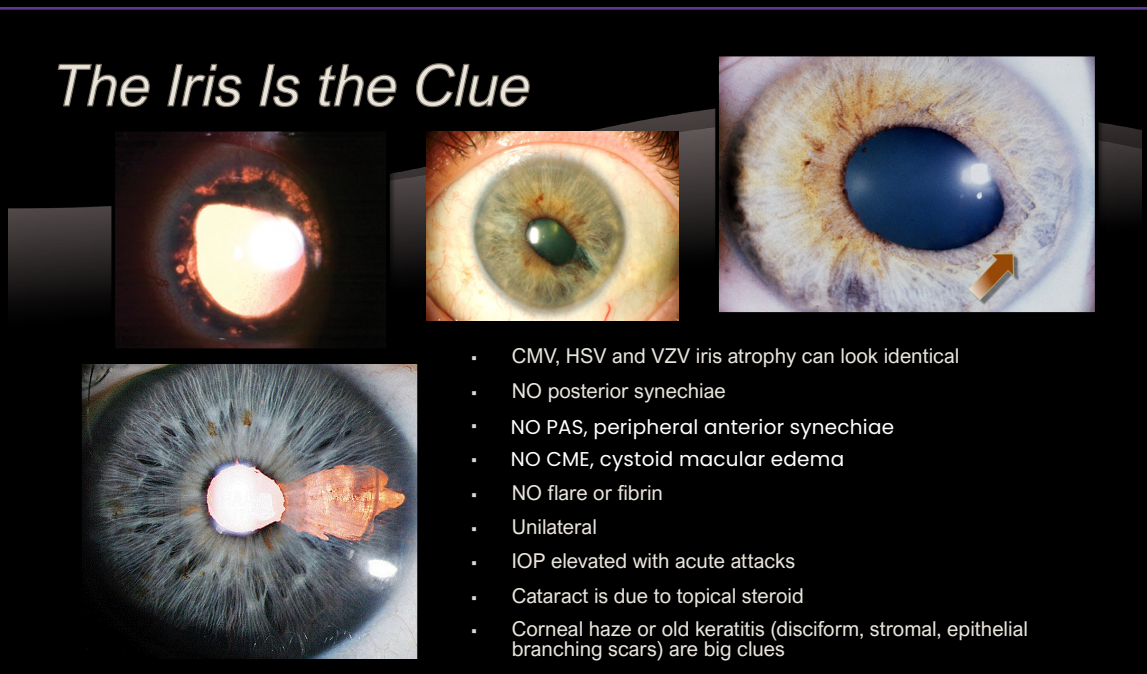
The Canadian anterior uveitis guidelines recommend HLA-B27 testing in moderate or severe non-granulomatous anterior uveitis cases, and not in first-episode, mild, unilateral anterior uveitis. Dr. Gottlieb challenged this view. She argued that even a "mild" first episode warrants investigation when accompanied by signs and symptoms suggestive of spondyloarthropathy. These include:

- Inflammatory back pain – gradual onset, morning stiffness, improves with movement, lasting longer than 3 months
- Peripheral arthritis – asymmetric, lower-limb predominant
- Enthesitis – heel or plantar pain (Achilles, plantar fascia)
- Dactylitis – "sausage" digits
- Extra-articular symptoms – recurrent red/painful eye (uveitis), skin plaques (psoriasis), and bowel symptoms (inflammatory bowel disease)
- Decreased spinal flexibility and chest expansion
- Sacroiliac tenderness (positive FABER test)
- Asymmetric oligoarthritis
- Nail pitting, onycholysis
- Associated Conditions – ankylosing spondylitis, psoriatic arthritis, reactive arthritis, and enteropathic arthritis

The Dublin Uveitis Evaluation Tool trial, published in 2015, revealed that 40% of patients presenting with idiopathic acute anterior uveitis have undiagnosed spondyloarthropathy, and that about half of all acute anterior uveitis cases are HLA-B27 positive. For those who are HLA-B27 positive, the chance of developing spondyloarthropathy or uveitis is one in four. These statistics demonstrate the benefit of HLA-B27 testing on first presentation of anterior uveitis, especially among those who have symptoms of spondyloarthropathy.

When a patient tests positive for HLA-B27, this result should be shared with patients, and patients should be counselled on the implications, including their increased risk of developing spondyloarthropathy and experiencing uveitis recurrences. They should also be encouraged to report symptoms listed above to their primary care physician.

Next, Dr. Gottlieb reviewed predictors of failure of topical steroid monotherapy in both adults and



children. Key predictors are persistent uveitis lasting over 3 months, frequent recurrences separated by periods of clinical activity lasting 3 months or more, and chronic uveitis (uveitis that occurs within 3 months of stopping therapy). Other predictors include:

- High baseline anterior chamber inflammation (≥2+ cells or ≥2+ flare is the strongest and most consistent predictor)
- Presence of vitreous cells or pars plana involvement (intermediate features)
- Uveitic macular edema
- Posterior segment involvement (vasculitis, choroiditis, papillitis)
- Need for more than 6-8 drops/day
- Structural complications: Band keratopathy, early PAS/synechiae, IOP elevation at baseline
- Delayed treatment (>1-2 weeks)
- Pediatric age: Children are more likely to require systemic therapy and those with juvenile idiopathic arthritis-associated uveitis almost always require systemic therapy.

For all patients with uveitis, Dr. Gottlieb stressed the importance of asking about a history of keratitis, immunosuppressant use, herpes zoster, and oral or facial blisters. Dr. Gottlieb recommended PCR testing for HSV, VZV, CMV when a viral cause is likely. She also recommended viral serology, due to the low sensitivity of PCR. Furthermore, if serology findings confirm no previous exposure to CMV, for example, then PCR testing need not be repeated for CMV. She described characteristic iris changes associated with HSV, VZV, and CMV.

Dr. Gottlieb then discussed an Ottawa case of West Nile virus uveitis, noting that its distinctive linear mid-peripheral retinal lesions can aid diagnosis even when cerebrospinal testing was negative. Because West Nile has become endemic in Ontario, she encouraged clinicians to recognize the retinal pattern of West Nile virus uveitis.

Finally, Dr. Gottlieb reviewed characteristic ocular findings in syphilis, emphasizing that every patient with uveitis should undergo syphilis testing and those with risk factors should also undergo HIV testing.

Corneal Disease Management in 2025

SETAREH ZIAI, MD, FRCSC

Dr. Ziai provided a comprehensive review of corneal disorders that must be identified and managed prior to cataract surgery to ensure optimal postoperative outcomes. She began with EBMD, a condition characterized by an abnormally thickened/multilayered epithelial basement membrane. Patients with EBMD may be asymptomatic or may describe fluctuating visual acuity, blurry vision, and "ghosting." Acute management of EBMD involves bandage contact lenses for pain, as well as lubrication, Muro eye drops, and antibiotics. Long-term, however, moderate-to-severe EBMD requires surgery. Superficial keratectomy is often effective, and can be performed at the slit lamp using a sterile technique. When available, phototherapeutic keratectomy is the ideal treatment for EBMD, with a 95% success rate in reducing future episodes.

Next, Dr. Ziai discussed conjunctivochalasis, which is characterized by redundant, lax bulbar conjunctiva that disrupts tear film spread with each blink. Patients commonly describe a persistent foreign body sensation. Age-related degeneration is the chief risk factor; other risk factors include mechanical friction from rubbing or wearing contacts and prior surgery. The most common management option is cautery, but tissue excision can also be performed and Dr. Ziai recommended combining these approaches for severe conjunctivochalasis. The "paste, pinch, cut" technique, which was compared to thermal cautery in a paper published in the *Canadian Journal of Ophthalmology* by Dr. Ziai and colleagues, provides greater patient comfort, but is a more expensive procedure.

Pterygium is another surface issue with implications for cataract surgery. Dr. Ziai highlighted the importance of preoperatively removing pterygia before biometric measurements. The gold standard procedure remains pterygium excision with conjunctival autograft, using fibrin glue. Dr. Ziai emphasized the importance of 3 months of postoperative topical steroids, and recommended using fluorometholone for primary pterygia and loteprednol etabonate for recurrent or highly inflamed cases.

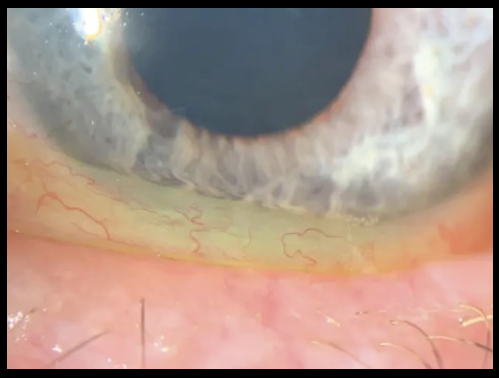
Dr. Ziai then reviewed Salzmann nodular degeneration, a chronic condition often related

Conjunctivochalasis

- Redundancy/laxity of the bulbar conjunctiva
- Interrupts the tear meniscus
- Can block the punctum
- Causes mechanical irritation

- Very common in older patients - underdiagnosed
- Causes tear film instability, ocular discomfort, FBS, tearing

…. and inaccurate/unstable preoperative measurements!!



to ocular surface inflammation. Peripheral or asymptomatic nodules may simply be monitored. Lubrication, lifitegrast, cyclosporine, warm compresses, and lid hygiene can relieve symptoms. To address highly symptomatic or visually significant nodules, one option is to peel off the nodule during superficial keratectomy. Phototherapeutic keratectomy with masking fills in depressions and allows the laser to smooth the peaks without deepening the valleys, reducing unnecessary stromal removal.

Floppy eyelid syndrome causes morning-predominant symptoms including chronic mild irritation and redness, discharge, blurry vision, grittiness, burning, and tearing. Approximately 60% to 80% of patients with the condition have obstructive sleep apnea. Thus, Dr. Ziai recommended referring patients to a sleep clinic once diagnosed. Patients should be advised to incorporate DED therapies, as well as nighttime lid taping or shields. However, long-term relief requires a lateral tarsal strip, canthal tightening, or wedge resection procedure.

Dr. Ziai then discussed giant papillary conjunctivitis, an immune reaction triggered by chronic mechanical irritation, often due to protein deposits on contact lenses. Symptoms include contact lens intolerance, foreign body sensation, itchiness, and discharge. Dr. Ziai urged ophthalmologists to "flip the lid" to identify this condition. Treatment often requires many weeks and centers on discontinuing contact lenses, if worn, as well as antihistamine and/or mast-cell stabilizer drops, cyclosporine or lifitegrast, topical steroids (with tapered dosing), and lubrication.

Finally, limbal stem cell deficiency is another ocular surface condition that must be managed preoperatively. Mild cases may respond to long-term anti-inflammatory therapy, and Dr. Ziai recommended measuring limbal stem cell deficiency via slit lamp examination to track improvement. More severe limbal stem cell deficiency requires surgical reconstruction. Dr. Ziai recommended the simple limbal epithelial transplant technique, in which small limbal grafts from the healthy eye are distributed over the amniotic membrane to repopulate the diseased cornea.

In the event of a poor surgical outcome, Dr. Ziai recommended sitting down with patients and discussing what has occurred and the treatment plan going forward. Patients appreciate transparency.

Nonglaucomatous Optic Neuropathy Management in 2025

JACINTHE ROULEAU, MD, FRCSC, DABO

Every ophthalmologist functions, to some degree, as a first-line neuro-ophthalmologist, detecting whether visual function loss is due to glaucoma or a potentially vision-threatening or life-threatening alternative diagnosis. Differential diagnoses include compressive or infiltrative lesions of the optic nerve, previous ischemic optic neuropathy, congenital anomaly of the optic nerve, hereditary optic neuropathy, brain lesion such as stroke or multiple sclerosis, post-traumatic optic neuropathy, and toxic/metabolic optic neuropathy.

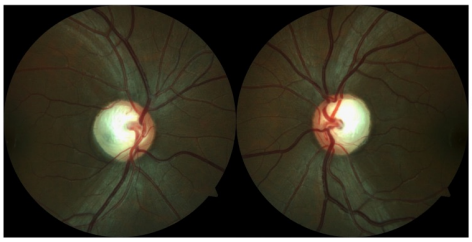
Red flags that could indicate nonglaucomatous optic neuropathy include:

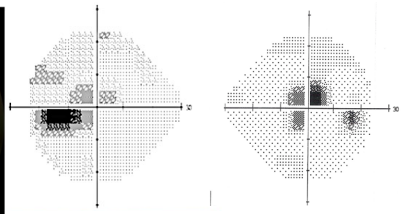
- Age <50
- Rapid decline in visual acuity
- Reduced visual acuity or colour vision out of proportion to cupping
- Marked RAPD
- Nerve pallor
- Asymmetric cup-to-disc ratio without history of asymmetric IOP or central corneal thickness
- Vertically aligned deficit of the GCC on the OCT
- Vertically aligned visual field defects
- Atypical visual field defects
- Visual fields that do not correlate with optic disc changes

Dr. Rouleau shared cases that illustrated these red flags. Case 1 was a 70-year-old man with vascular risk factors and blurry vision in the left eye (20/25 OD and 20/50 OS) that lasted for 4 months, an RAPD, and decreased colour vision in the left eye. Although the patient's inferior arcuate visual field defect is consistent with glaucoma, the rapid decline in vision, reduced visual acuity, and colour vision do not align with the cup-to-disc ratio of 0.4. (Acuity and colour vision are only decreased when glaucoma is severe). Other red flags included the presence of RAPD, pallor of the superior rim in the left eye, and an asymmetric cup-to-disc ratio without a history of asymmetric IOP. A chart review revealed a prior episode of optic disc edema, leading to the diagnosis of an AION.

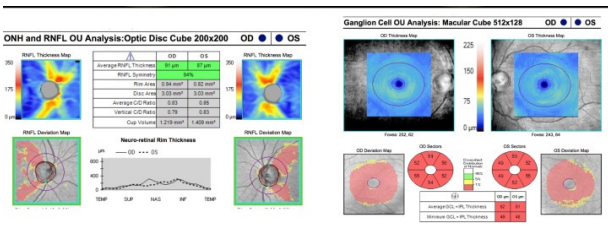
Case 3
18-year-old male

Suspicion of glaucoma
enlarged C/D ratio





- Examination
- Visual acuity : 20/80 OD 20/80 OS
- IOP : 20/21, normal pachymetry
- Pupil : normal
- Color vision abnormal OU
  - HRR 1/11 OIU
- C/D 0,8/0,8



Waisberg E., Micieli J.A. Neuro-Ophthalmological Optic Nerve Cupping: An Overview. Eye Brain. 2021;13:255–268.

Dr. Rouleau explained that if acute swelling was not documented, such a case would require MRI imaging of the anterior visual pathway.

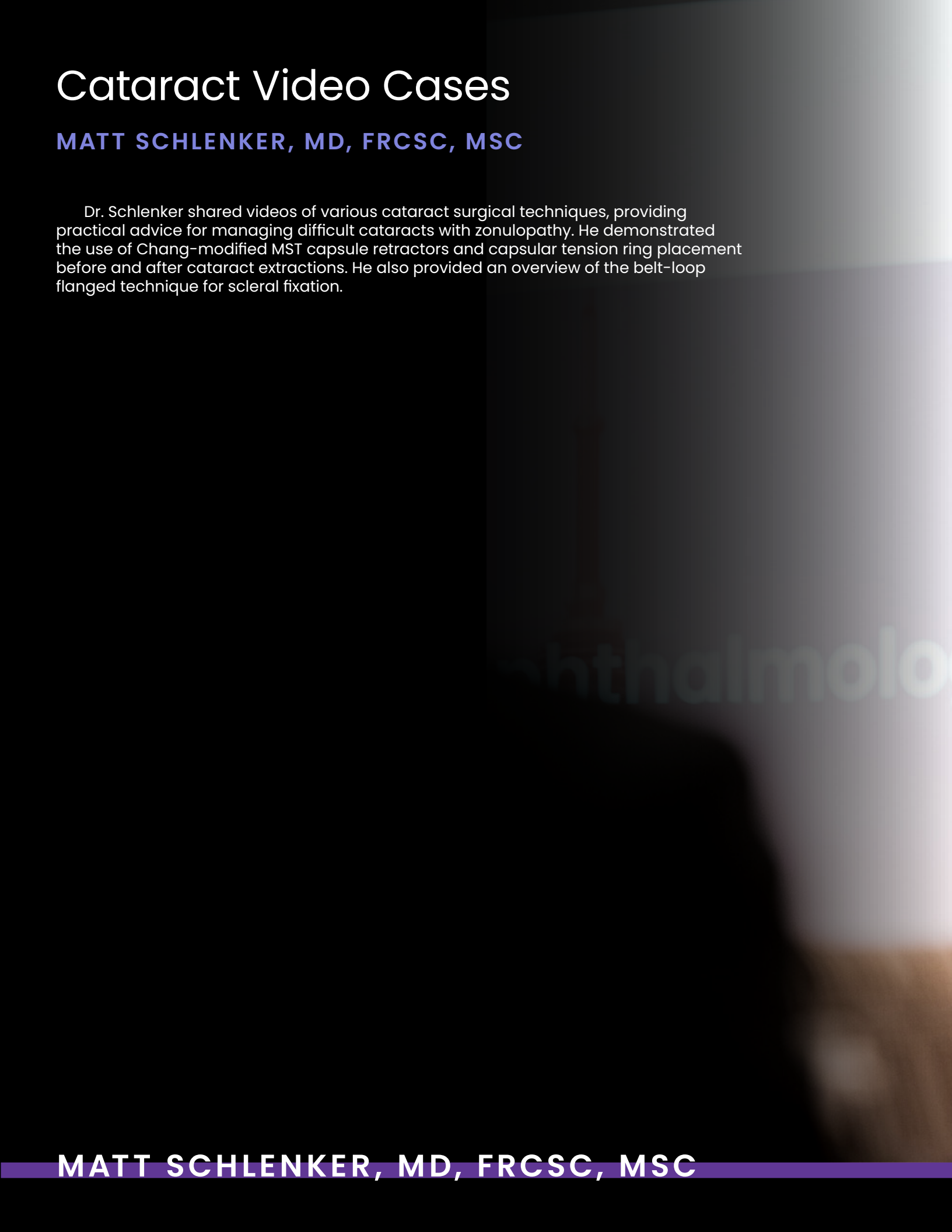
Case 2 featured a 60-year-old male with normal IOP and normal vision but cup-to-disc ratios of 0.6 and 0.7. The visual fields were vertically aligned but there was an abnormal inferior defect. However, there was no sign of a thin superior neuroretinal rim, optic nerve notch, nor OCT abnormality to explain the abnormal inferior defect. Imaging revealed the diagnosis of chronic bilateral occipital cortical infarcts, explaining the left hemianopic inferior scotomas. The patient likely has physiologically enlarged cupping, but this should be confirmed with follow-up.

Case 3 involved an 18-year-old male with 20/80 vision in both eyes, borderline IOP, no RAPD, but decreased colour vision. He was referred for suspicion of glaucoma due to the large cup-to-disc ratio of 0.8 in both eyes and visual fields as shown in the image. In addition to his young age, reduced visual acuity and colour vision out of proportion to cupping, and atypical central visual field defects, the patient also had marked pallor of the temporal rim on both sides. The diagnosis in this case was dominant optic atrophy, a genetic disorder characterized by significant thinning of the RNFL and GCC. Differential diagnoses for this case include late-stage toxic or nutritional optic neuropathies.

Cataract Video Cases

MATT SCHLENKER, MD, FRCSC, MSC

Dr. Schlenker shared videos of various cataract surgical techniques, providing practical advice for managing difficult cataracts with zonulopathy. He demonstrated the use of Chang-modified MST capsule retractors and capsular tension ring placement before and after cataract extractions. He also provided an overview of the belt-loop flanged technique for scleral fixation.



MATT SCHLENKER, MD, FRCSC, MSC


Canadian
Eye Care
Today
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Ophthalmology Conference
2025

Panel Discussion

How do you suggest applying for funding to perform minimally invasive glaucoma surgery?

Dr. Schlenker: Some of the minimally invasive glaucoma surgery techniques do not require significant funding, so these can be utilized initially. Surgical programs have utilized a variety of funding mechanisms, including utilizing the global budget, or revenue from other areas within ophthalmology. However, increasingly, cost-based funding is available directly from the government to hospitals. When justifying the expenditure, one can consider more than just the cost of the devices, but also the burden of glaucoma, including the risk of blindness, and the cost of ongoing topical glaucoma medications.

What is your advice for early career physicians who receive a College complaint?

Dr. Varma: Most ophthalmologists will experience a College complaint at some point so do not feel alarmed if it happens to you. The CMPA is very helpful with providing guidance and reducing anxiety. If you met the standard of care, have good documentation, and communicated well with the patient, College complaints will often resolve in your favour. I recommend practicing by the adage: "If you didn't document it, it didn't happen."

Dr. Yoganathan: I recommend carefully reading the complaint letter. Often, patients are simply looking for answers. Address these answers in a letter in an appropriate tone, noting that everything you write will likely be read by the family member or patient who filed a complaint. If the patient or family member is satisfied with the response letter, they may decide not to request disciplinary action.

Should comprehensive ophthalmologists learn minimally invasive glaucoma surgery surgeries? If so, what's your advice for gaining these skills?

Dr. Varma: Comprehensive ophthalmologists have the opportunity to help glaucoma patients earlier in the disease course, compared to glaucoma specialists who see patients with more advanced disease. The surgery is all about learning how to work from the angle. I recommend starting without any devices, and learning the ideal patient head, microscope, and eye position to be able to see the angle.

Dr. Rouleau: Two or three years ago I decided to learn how to do minimally invasive glaucoma surgery. I agree that you have to pay attention more to the anatomy of the angle. I also did a course through the AAO. I actually had the privilege to work with a glaucoma specialist, so I watched a couple of their surgical cases and took notes. I also contacted a representative for the device, so I could practice using the device in a lab setting.

Dr. Bhamra: I recommend considering how many surgeries you expect to perform in a year. If that number is low, it may not be worth potentially damaging your relationship with your glaucoma specialist. If you really want to perform minimally invasive glaucoma surgeries, I suggest gradually building up your skillset over time.

Dr. Gottlieb: I recently emailed local glaucoma specialists about whether they feel it makes sense for myself and my colleague to start performing GATT, even if our volume would be small. The glaucoma specialists encouraged us, saying GATT is a useful tool for managing uveitis patients and a good addition to a comprehensive ophthalmologist's skillset. When expanding one's scope of practice, the Royal College recommends creating a Personal Learning Plan, speaking with colleagues, and seeking mentorship, which can count toward Section 3 credits.

Dr. Yoganathan: When you're starting any new procedure, planning how you will manage complications is very important. After my first case of endophthalmitis, I was gutted. After that, I instituted a 24-hour call service. All patients are informed that they need to call the service if they have any loss of vision or pain within a few days of the injection. This messaging is repeated many times, as endophthalmitis needs to be treated within hours to ensure an optimal outcome.

Can each of you share something that you learned in the last year that you think will help new-to-practice ophthalmologists?

Dr. Schlenker: I have learned to provide more information sheets to patients before surgical discussion and at the time of surgical planning.

Dr. Rouleau: I recommend finding two or three colleagues who will be there for you when you're facing major life changes or you're having a hard day. It's important to cultivate these relationships

when things are going well in your life, so you'll have people to turn to when you're struggling.

Dr. Ziai: Spend more time with your kids. They grow up really fast. My oldest is applying for university now. You don't get that time back. Often, we think, I need more work-life balance but we don't change anything and the years fly by. Don't forget the important stuff.

Dr. Gottlieb: I agree with what's been said. It's so important to have colleagues that you can talk to, because they understand both the rewards and challenges of ophthalmology more deeply than those who don't work in our field. This year, I decided to take off all of my children's "PD days," knowing that I won't get these days back.

Dr. Varma: Don't forget to value your time, and your body. I thought I was indestructible in my 30s, but I now realize how important it is to take breaks and think about ergonomics.

Dr. Bhamra: Ergonomic seminars are very important but, bottom line, you need to have a strong body to prevent injury, so I recommend finding a way to be active. I also recommend being proactive about bolstering your mental health and sense of purpose so that you can withstand the inevitable stressful situations. Whether you do that through community involvement, finding spiritual connection, or pursuing hobbies, it's important to build up a strong sense of self.

Dr. Chan: I also want to draw attention to the reality that it's easy to ramp up work, but it's very difficult to ramp down. Since I graduated, only 3 years ago, I've never worked on a Monday. I work Tuesdays and Fridays. I know that I'm making less money, but it's worth it for me to have that additional day to recharge and reconnect with what's important in my life.

I would also echo the point that giving patients the space to be heard will reduce the risk of a College complaint. If a patient calls my office, most of the time, they get through to a staff member. If they aren't able to get through, they will get a phone call back within 30 minutes. Today, AI assistants can also be leveraged to triage patient phone calls.

Dr. Yoganathan: It's okay to ask for help. Regardless of how experienced or knowledgeable you are, there's always someone who knows more than you or has found a better approach. Every week, I see a new case where I'm not sure about the diagnosis or best course of action. With the patient's permission, I send the pictures to my retina group in Detroit. They don't always agree, but then I tell the patient, here is what I discussed with my specialist colleagues and here are your options. By staying curious and continually learning, you continue to advance your knowledge and career, regardless of how senior you become.

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