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# APVRS 2023

## Collective Community Unveiled Ophthalmic Excellence

by Tan Sher Lynn

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*The eagerly anticipated Opening Ceremony cum Tano and International Award Lectures session of the 16th Congress of the Asia-Pacific Vitreo-retina Society (APVRS 2023) at the Hong Kong Convention and Exhibition Centre (HKCEC) kicked off in spectacular fashion, setting the stage for a transformative journey into the latest advancements and collaborative innovations in vitreoretinal care.*

**A**PVRS 2023 commenced with an air of excitement as esteemed professionals, researchers and industry leaders from the Asia-Pacific region and beyond, gathered to witness the grand unveiling of the society's first fully physical conference post-pandemic.

The opening ceremony, enriched by a captivating drum performance as council members and committee heads of the APVRS marched to gather on stage, brought a dynamic and symbolic element to this year's congress. The synchronized drum performance not only showcased the precision and

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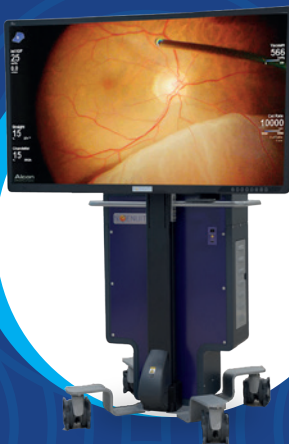
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coordination necessary in eye care, it also served as a powerful reminder that, like the beating of drums, the collective efforts of the ophthalmic community can create a harmonious symphony in the pursuit of enhanced vision and eye health.

The opening address, delivered by APVRS 2023 Congress President Prof. Dennis Lam, stressed the society's full commitment to advancing the vitreoretinal standards of the Asia-Pacific region. "It was in 2005 that we established the very first APVRS symposium in this very same place. The meeting was attended by less than 100 participants. But the journey of a thousand miles starts with the first stride. This step represents a historic moment in turning a new page for vitreoretinal development of the Asia-Pacific region. Growing from scratch to strength, APVRS is now one of the most important ophthalmic societies around the world. I am sure APVRS will develop further to achieve new heights in VR care," said Prof. Lam.

APVRS Secretary General Prof. Andrew Chang followed suit with inspiring insights. "The APVRS council is looking towards further growth and influence. So, we are looking to change structure to become more geographically inclusive, and to form alliances and influence throughout the Asia-Pacific region. We will do better in the future to make the next generation even more influential than we are today," he stated.

The guest of honor, Prof. Chung-mau Lo, Hong Kong Secretary of Health, was invited to address the audience, whom he thanked, welcomed and commended. "It's so touching to see international delegates coming back to Hong Kong to join this international event. I'm particularly impressed to hear that this is the third time this congress has come to Hong Kong. It's an indication of the trust you have in the hospitality of Hong Kong. Finally, I want to commend you and the society for your contribution in advancing the science and practice of ophthalmology, especially in vitreoretina," he said.

After the inspirational speeches, two prestigious APVRS awards — the *Tano Lecture Award and the International Award* — were presented to this year's recipients.



## APVRS 2023 Tano Lecture Award

This year, this prestigious award went to Prof. Kazuaki Kadonosono (Japan), who presented his talk, entitled *Innovation of Vitrectomy Techniques and Subsequent Surgical Results*. Prof. Kadonosono is known as the pioneer of introducing the use of indocyanine green (ICG) dye with a concentration of 0.06% along with viscoelastic material, for macular hole surgery. This method was adopted by the ophthalmology community and has been widely used for over two decades now.

Established in 2009 in memory of APVRS founding President, Prof. Yasuo Tano, the APVRS Tano Lecture honors an individual of over 45 years of age for exemplary leadership and significant contributions in advancing the understanding, diagnosis, and treatment of vitreoretinal diseases.

"Recent advancements in techniques (such as the change of hue from red [0] to green [20 degrees]), allows us to see the membrane much more clearly, resulting in effective removal of the internal limiting membrane (ILM)," said Prof. Kadonosono, adding that the use of artificial intelligence also allowed better visualization of the membrane.

"Unmet needs are existing solutions or treatments that are insufficient or do not adequately address the challenges or requirements of a given solution. Identifying and addressing such unmet needs is a key driver of innovation and progress in various fields," he continued.

Focusing on the unmet need in retina — central retinal artery occlusion (CRAO), he described it as a devastating disease without any effective treatment to date.

Hence, between 2019 and 2023, Prof. Kadonosono and his colleagues decided to carry out the CRAO study on 53 eyes. The cases were reviewed retrospectively and divided into the observation group and endovascular surgery group. They also developed an intelligent robot assist arm system named iArmS to help in the stabilization of the surgeon's performance during the procedure.

The study showed that in 22 CRAO eyes that were not given any treatment, 19 eyes (86%) didn't have significant improvement in visual acuity. On the other hand, of the 31 eyes underwent surgical cannulation with tissue plasminogen activator (tPA) assisted with robotics successfully, 12 eyes (39%) had a significant improvement in visual acuity.

“CRAO can be caused by embolism due to plague or thrombosis due to clot, or both. Cannulation is effective in CRAO due to thrombosis because tPA functions well to dissolve that clot,” he explained.

“In summary, improvement rate for observation of CRAO is very low, only 2%. Improvement rate for cannulation of CRAO is 39%. However, improvement rate for cannulation of CRAO with thrombus alone is 100%,” Prof. Kadonosono concluded.

### APVRS 2023 International Award

Meanwhile, the *APVRS 2023 International Award* was established in 2017 to recognize individuals from outside the Asia-Pacific region for outstanding contributions in advancing the understanding, diagnosis and treatment of vitreoretinal diseases.

This year, the deserving recipient is Prof. Jost Jonas (Germany), who presented

his talk, entitled *Histological-Clinical Correlation and Potential Mechanism* after receiving the award.

Prof. Jonas noted that in high myopia, glaucoma prevalence increases with longer axial length. Parapapillary changes of the alpha, beta, gamma and delta zone (some of which involve the Bruch’s membrane) may contribute to this. Besides, there’s also non-glaucomatous optic nerve atrophy (NGOA) in high myopia. He noted that in highly myopic eyes, NGOA may be a reason for visual field and central visual field acuity loss, unexplainable by myopic macular pathologies.

“The hypothesis we put forward is: myopic axial elongation may be due to an enlargement (growth) of Bruch’s membrane in the retro-equatorial to equatorial region. Also, Bruch’s membrane enlargement in the fundus mid-periphery could explain the change of the eye shape from a sphere to a prolate ellipsoid. In conclusion, Bruch’s membrane may be

more than just a transparent “plywood” layer of collagen-elastin-collagen,” he said wittily.

As the ceremony concluded, attendees were invited to explore the exhibition hall, where cutting-edge technologies and pharmaceutical innovations were on display. Industry leaders showcased their latest products and services, fostering an environment of collaboration and knowledge exchange.

The opening ceremony of the APVRS 2023 left attendees energized and inspired, setting the stage for several days of intensive scientific sessions, hands-on workshops and engaging discussions. As professionals from diverse backgrounds converged to share their expertise, the conference promised not only to elevate the standard of eye care but also to strengthen the bonds that unite the global ophthalmic community. 🐘

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# To Peel or to Flap?

Surgical retina pearls highlight innovative systems and tools

by Hazlin Hassan

***How do you decide between an ILM peel or an ILM flap? What's the latest in digital visualization? These and other questions in surgical retina were discussed during a session at the three-day Asia-Pacific Vitreo-retina Society Congress (APVRS 2023) in Hong Kong on December 8.***



Prof. Amer Awan

**E**steemed experts from around the region shared their perspectives on complex and difficult retinal conditions, including various controversies regarding peeling ILM (internal limiting membrane) and flapping. Here are some of the highlights...

The Alcon NGENUITY 1.5 improves intraoperative visibility with enhanced detail, allowing for improvement of precision of surgery, said Dr. Makoto Inoue of the Kyorin Eye Center, Kyorin University School of Medicine, Japan. "Its new generation 3D monitor and camera control unit (CCU) boosts visibility during surgery," he added.

"The image sharpening algorithms enable brighter intraocular images, clarifies tissue boundaries, and the yellow filter-like function brightens color intensity," explained Dr. Inoue.

With up to 5x extended-depth-of-focus, it increases accuracy and minimizes the need for manual focusing. This increases efficiency



Associate Prof. Lee Shu Yen

and reduces operation time. Up to 42% depth resolution, it enhances visual perception of anterior segment structural details and layers for precise tissue manipulation. With up to 48% magnification, it provides high magnification, improving the ability to perform intricate surgical tasks. Its image sharpening technology is attracting attention from medical and industrial sectors as well as surveillance cameras.

Prof. Amer Awan, consultant ophthalmologist and retina specialist of Shifa International Hospital, Pakistan, spoke about the use of 27-gauge vitrectomy systems in vitreoretinal surgery. The development of high speed cutters, high performance vitrectomy machines and stiffer instruments have significantly improved the efficiency of vitrectomy, enabling surgeons to perform 27-gauge vitrectomy for a wide variety of vitreoretinal diseases, highlighted Prof. Awan. It can also be used in complex cases and longer surgeries, he noted.

"Vitreous cutters have continuously improved over time and the cutting speeds have increased from 2,500 cpm to 10,000 cpm with the single-blade cutter. Furthermore, dual-cutter technology provides a higher cutting speed, a high duty cycle, and reduced retinal traction, thereby allowing safe and efficient dissection of the vitreous and membranes even over mobile detached retina," Prof. Awan explained.

In conclusion, the latest advances in 27-gauge vitrectomy have made possible the many benefits, such as better sealing sclerotomies, reduced hypotony, less rebleeding after diabetic vitrectomy, fewer iatrogenic breaks and favorable visual recovery. "The evolution of 27-gauge vitrectomy over the last decade has been tremendous, and further developments to achieve even greater fluidics, stiffer instruments and higher cut rates will continue over the coming years. It can be used in the vast variety of VR pathologies," he noted.

Over the years, the technique to remove the ILM has evolved. In cases of myopic macular holes (MH), the advice previously was to do ILM peel as much as possible. But one expert feels that now, it is better to "tailor it to the eye." Associate Prof. Lee Shu Yen, head of surgical retina at the Singapore National Eye Centre (SNEC), discussed the pros and cons of peeling versus using a flap. Data from a study suggests that an ILM flap showed better closure rates although not statistically significant, at 93.8% versus 75%, reported A/Prof. Lee.

There is better anatomical restoration seen on the OCT at various time points with an ILM peel while MH with schisis show better anatomical recovery, she added. A larger MH diameter is associated with poorer hole closure rate. But there was no difference found in the final visual outcome. A/Prof. Lee's tip? Tailor it to the eye. With a large or chronic MH and retinal detachment, an ILM flap is probably the better choice. However, better to watch the extent of the peel so as to limit ensuing atrophic changes in the long term, she cautioned. 🐘

# The Lowdown on Pachychoroid Diseases

## Experts shed light on rare retinal conditions

by Matt Herman

**Day 1 of the 16th Asia-Pacific Vitreo-retina Society Congress (APVRS 2023) in Hong Kong wasted no time getting to it. One of the morning sessions saw a panel of experts get down and dirty on the potentially devastating spectrum of rare pachychoroid diseases. And with a relatively low profile compared to other retinal diseases, the information delivered on risk factors, diagnosis and treatment was a welcome boon to attendees.**



Early bird APVRS 2023-goers were in for a wild ride through pachychoroid diseases on Day 1 of Asia's biggest retinal conference at the Hong Kong Exhibition and Convention Centre. And though this is a retinal road less traveled, the relatively higher prevalence of diseases on the pachychoroid spectrum like polypoidal choroidal vasculopathy (PCV) in Asia meant a room full of bright-eyed and bushy-tailed regional retinal specialists.

Here's a breakdown of the session highlights for those who couldn't make the trek– or those too jet-lagged to peel themselves off of their Hong Kong hotel beds.

### OCT-A saves the day?

Dr. Shih-Jen Chen (Chinese Taipei) got the ball rolling with a presentation on a potential changing of the guard in diagnosing PCV. The current gold standard is indocyanine green

angiography (ICGA), but is it time for a change?

Dr. Chen believes so. He argued that a combination of modern technology can displace the ICGA gold standard and its lack of availability and invasiveness. Anti-VEGF treatments and the resulting decrease in polyp regression means ICGA is increasingly outdated for tracking the disease.

Instead, Dr. Chen noted that a combination of color and optical coherence tomography angiography (OCT-A) or fluorescein angiography (FA) alone can help AI reach a correct diagnosis in 80% of cases – all great news for screening such an under-the-radar diagnosis.

Symposium co-chair Dr. Danny Ng (Hong Kong SAR) echoed these sentiments later in the symposium with his own work on the application of OCT-A in pachychoroid disease.

“Having a wide field and high resolution of a montage of images on OCT-A will enhance its application.”

- Dr. Danny Ng, CUHK, Hong Kong SAR

Picking up from Dr. Chen, Dr. Ng noted that OCT-A demonstrated choriocapillaris flow deficits from venous overload choroidopathy in pachychoroid disease, more accurately diagnosed macular neovascular membranes without interference from dyes, and distinguished fibrovascular pigment epithelium detachments from microrips of the retinal pigment epithelium.

Dr. Ng expressed a pervasive sense of optimism on the bright future of OCT-A at the end of his discussion. “Having a wide field and high resolution of a montage of images on OCT-A will enhance its application,” he said.

### Under pressure

The agitations of daily life get to us all – but they can have disastrous consequences for our retinas. Dr. Fumi

Gomi (Japan) laid out her research on the relationship between stress and polychoroid diseases with her turn at the podium.

Dr. Gomi's work on central serous chorioretinopathy (CSCR) showed correlation between a marked thickening of the choroid in patients with CSCR and the increases in cortisol and decreases in serotonin that accompany stress.

She believes there are several factors at play. According to Dr. Gomi, stress can contribute to the onset and progression of CSCR by inducing choroidal vascular hyperpermeability – and aggravate it by altering choroidal blood flow. She also noted the abnormal function of pupils in CSCR patients, and the havoc stress can wreak on pupil size as another piece of the puzzle.

### On myopia and macular mysteries

Myopia's mad march has been plastered all over the ophthalmic newswire worldwide, and Dr. Tzyy-Chang Ho (Chinese Taipei) shared his work on PCV in highly myopic eyes. He pointed to factors that made PCV different in these patients, including much higher proportions of afflicted women, less subretinal hemorrhaging, and thinner choroids with the focal pachychoroid phenotype.

The good news, though, for our increasingly myopic world is that these differences don't mean doctors should be breaking with current treatment paradigms when treating high myopes with PCV. "Treatment of PCV with anti-

VEGF injections alone or combined with photodynamic therapy is equally beneficial in highly myopic and non-highly myopic eyes," Dr. Ho said.

Dr. Min Kim (South Korea) also wowed the audience with his elegant deconstruction of a rare and insidious disease shrouded in mystery – peripheral exudative hemorrhagic chorioretinopathy (PEHCR).

So what's so enigmatic about the disease? For one, PEHCR is frequently under- or misdiagnosed as something else. "Most of the patients we saw in our clinic were actually referred for a possible diagnosis of choroidal melanoma," Dr. Kim said.

Another factor making this disease so elusive is the debate over what it actually is – a pachychoroid disease à la PCV or something else. This, along with the ascertaining the macular characteristics of the disease are what Dr. Kim's research was based on.

His conclusions to these quandaries were related. In the end, the presence of soft drusen Dr. Kim found in the macula led to his team concluding that PEHCR is a part of the age-related macular degeneration (AMD) spectrum.

But that doesn't rule out a possible connection with PCV and other pachychoroid diseases. "Whether this can be considered a part of the pachychoroid spectrum is still controversial," he said. "In our study, choroidal thinning was observed – but there was a tendency towards increasing choroidal thickness in the temporal macula in these conditions."

### The right path(way) for PCV?

Dr. Timothy Lai (Hong Kong SAR) then swapped one contentious issue for another in his discussion of the Angiotensin-2 (Ang-2)-Tyrosine-protein kinase receptor (Tie-2) complex pathway (a.k.a. the Ang-Tie pathway) in pachychoroid diseases. And while the debate over targeting these pathways in exudative retinal diseases like wet AMD rages on, Dr. Lai thinks it's largely settled for pachychoroid diseases like PCV.

"We have very good evidence – laboratory and clinical study data – showing that the Ang-Tie pathway is involved in the pathogenesis of pachychoroid disease," he said, pointing to several studies<sup>1,2</sup> on the topic.

Dr. Lai also believes the time has come to put these findings to the test for real-world patient outcomes. He concluded his talk by pointing out the ongoing SALWEEN study on PCV patients (among others) treated with the Ang-2 pathway-targeting faricimab (Vabysmo; Roche, Basel, Switzerland).

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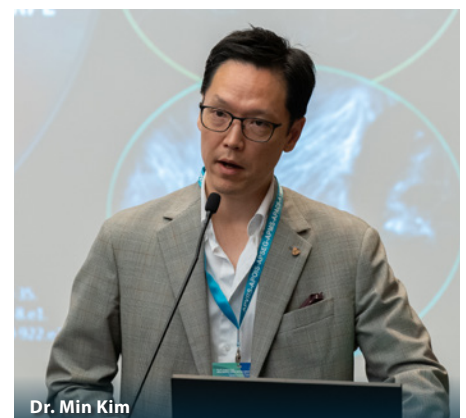
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Dr. Shih-Jen Chen



Dr. Fumi Gomi



Dr. Min Kim



# Advances in Retinal Imaging

A prelude to the future management of retinopathies

by Hazlin Hassan

**During a joint APOIS-APVRS symposium on advanced retinal imaging chaired by Drs. Kenneth Kai Wang Li (Hong Kong SAR), Srinivas Sadda (USA) and Hiroko Terasaki (Japan), at the three-day 16th Congress of the Asia-Pacific Vitreo-retina Society (APVRS 2023) in Hong Kong on December 8, global experts in the field reviewed some of these many advances in imaging which look set to impact the clinical practice of retinal care in the next few years.**

As the world progresses at breakneck speed, advances in retinal imaging are also exploding (but in a good way), helping clinicians diagnose retinal diseases better – and from the comfort of the patient's own home.

Retinal imaging experts discussed topics that ranged from home diagnostics to pushing the boundaries of structural resolution, and in vivo metabolic assessments to imaging in the operating room.

## FLIO for early detection

Fluorescence lifetime imaging ophthalmoscopy (FLIO) may be a useful tool to detect early changes in retinal degenerative diseases, said Dr. Yoko Miura of the Department of Ophthalmology, University of Lübeck, Germany. FLIO is a new imaging modality that measures and maps the fluorescence lifetime of fundus autofluorescence using ultrashort pulse laser. It has the potential to detect not only morphological changes but also subtle changes such as cellular metabolic change or the accumulation of metabolism-related

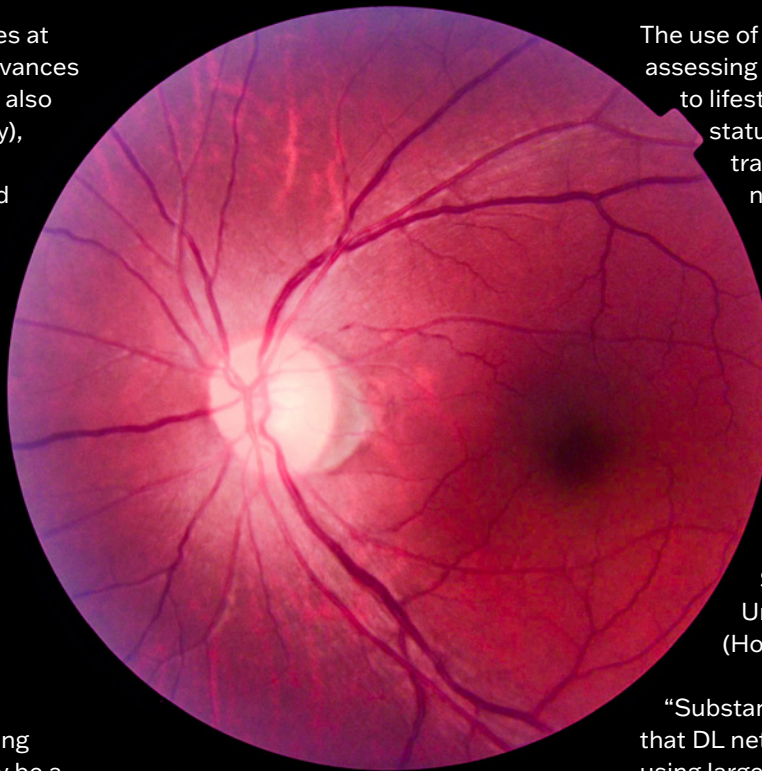
products. As such, it may be able to play a role in monitoring disease progression and evaluating therapeutic effect.

“There are many factors that may influence fluorescence lifetime of the fundus, such as structural, hemodynamic and metabolic factors, therefore, multimodal imaging is essential for data interpretation,” said Dr. Miura.

According to Dr. Miura, a recent study comparing smokers and non-smokers showed that FLIO may also be able to detect differences in cellular metabolism in healthy individuals without retinal disease.

“There are many factors that may influence fluorescence lifetime of the fundus, such as structural, hemodynamic and metabolic factors, therefore, multimodal imaging is essential for data interpretation.”

- Dr. Yoko Miura, Department of Ophthalmology, University of Lübeck, Germany



The use of FLIO may also be useful in assessing retinal conditions related to lifestyle and systemic metabolic status. Further clinical and translational research is needed, she concluded.

## Work smart, use AI

Artificial intelligence (AI) and deep learning (DL) can be used to perform retinal imaging and analysis, reported Associate Prof. Carol Cheung, Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong (Hong Kong SAR).

“Substantial studies demonstrated that DL networks can be trained, using large retinal fundus images, to identify various eye diseases and the performance is at least as good as professional human graders,” said Assoc. Prof. Cheung.

Furthermore, in a study to evaluate the performance for diabetic retinopathy (DR) screening using AI, the AI system exceeded all pre-specified superior endpoints at a sensitivity of 87.2%. Using AI would help to reduce the screening burden on clinicians for patients not requiring treatment,



emphasized Assoc. Prof. Cheung. In doing so, resources can be better utilized and the best care can be delivered.

Current research and efforts are focused on moving from “concept” to “implementation”.

Implementation gaps and specific barriers to clinical adoption, such as technical, economic, cultural and logistics, must be identified and strategies to overcome those gaps or barriers must be evaluated and addressed.

### Stay home, stay safe

While office visits provide limited insights in disease dynamics and treatment response, a home-OCT monitoring system has the potential to fill the gap, reported Prof. Judy Kim, professor of ophthalmology at the Medical College of Wisconsin (USA).

All it requires is a compact OCT device with reliable imaging, a monitoring center to support patients and respond to alerts, and of course, compliant patients. How it works is that a retina specialist refers patients to the monitoring center for home-OCT. The monitoring center provides patients with a home-OCT device and the necessary support for regular monitoring. Then OCT volumes are transmitted to an AI-powered cloud service for fluid quantification. The retinal specialist can review images, fluid thickness maps, fluid volume trajectories and set thresholds for notification alerts.

Prof. Kim reported a study that was carried out on 290 subjects with neovascular age-related macular degeneration (nAMD) diagnosis from four retina centers with a total of 531 eyes (310 with nAMD). They were given a 2-minute tutorial with no assistance from a technician. They conducted

self-imaging on the home-OCT device with grading by an ophthalmologist. Overall, 91% of subjects were able to successfully self-image.

### The sky is the limit for digitization

A dizzying array of digital solutions are being developed to enhance surgeon and patient experiences, from cloud-based applications to 3D surgery. With the advancement of hardware, digital surgery is expected to play a more important role in ophthalmic surgery, said Prof. Kenneth Li, chief of service at the Department of Ophthalmology, United Christian Hospital and Tseung Kwan O Hospital (Hong Kong SAR).

“Some of the practical benefits of digital surgery include ergonomics, enhanced depth-of-field and depth-of-focus, and being able to reduce the illumination used and phototoxicity, with 20 to 60% less light, and a lights-out technique for strabismus surgery,” noted Prof. Li.

In 3D digital surgical visualization technology, lower light levels are used, which helps to protect the macula from excessive light exposure. Surgical data science could also be a new area of research, he said. All this could lead to more accurate diagnosis and optimized treatment recommendations, resulting in better outcomes for the patient. Indeed, the sky seems to be the limit. 🌈



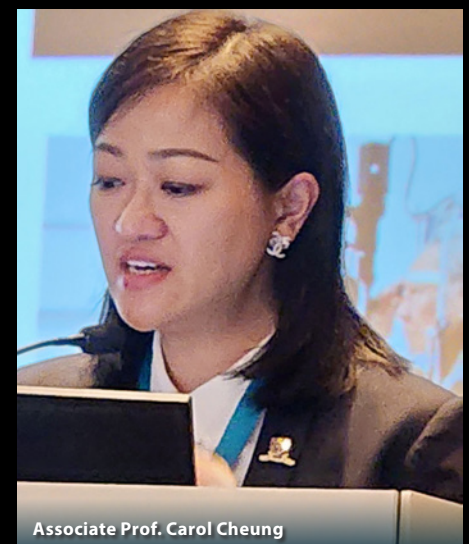
Dr. Kenneth Kai Wang Li, Dr. Srinivas Satta and Dr. Hiroko Terasaki



Prof. Judy Kim



Dr. Yoko Miura



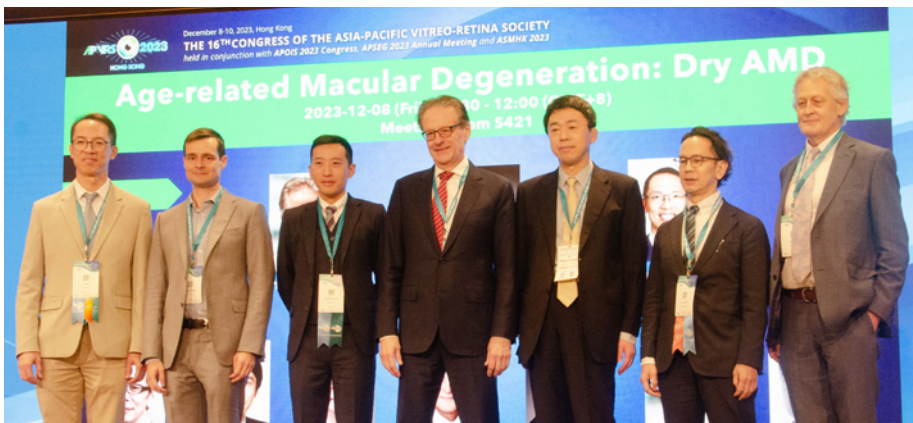
Associate Prof. Carol Cheung

# Dry AMD Unveiled

Insights and prevention tips

by Tan Sher Lynn

**Experts unraveled the complexities of geographic atrophy (GA) and drusen in dry age-related macular degeneration (AMD), and offered advice on preventing and reducing AMD progression on day 1 of the 16th Congress of the Asia-Pacific Vitreo-retina Society (APVRS 2023).**



**G**eographic atrophy (GA) is a progressive form of dry AMD with irreversible atrophic lesions in the outer retina. Dr. Yasuo Yanagi (Japan) and colleagues conducted a retrospective study to understand the clinical characteristics and progression rate of GA linked to age-related macular degeneration (AMD) in the Japanese population. Results of the study showed that the incidence of GA in East Asia, particularly in Japan, is notably lower compared to Caucasian populations. It also appeared to be among the lowest among Asian countries. “A thick choroid seems to have a protective role, but this alone does not explain the regional differences in Caucasian countries. So possibly, environmental and lifestyle factors may have a role,” said Dr. Yanagi.

Meanwhile, Dr. Akitaka Tsujikawa (Japan) noted that pachychoroid GA was diagnosed in 23% of patients

with GA in the Japanese population, according to a retrospective study of 92 eyes of 92 Japanese with GA. “Compared with patients with conventional GA, patients with pachychoroid GA were younger and had a male predominance. Pachychoroid GA was associated with a thick choroid and choroidal vascular hyperpermeability. The genetic risk score in patients with pachychoroid GA showed that these patients were less prone to AMD than to conventional GA,” explained Dr. Tsujikawa.

He also mentioned that the GA area was small and the progression rate was low, and that the high prevalence of pachychoroid GA may account for the unique clinical characteristics of Asian GA.

Dry macular degeneration occurs when light-sensitive cells in the macula slowly break down from accumulation of small yellow deposits called drusen.

But are all drusen the same? Prof. Wai-ching Lam (Hong Kong SAR) addressed this question by giving an overview of the different types of drusen.

“Soft drusen often develop within the macula and sub-retinal pigment epithelium. Their locations are the hallmark of AMD. Cuticular drusen are seen in AMD dominant drusen. Meanwhile, subretinal drusenoid deposits (SDD) are a risk factor for advanced AMD. They are associated with high risk of vascular diseases, visual cycle disorders and inherited retinal disease,” Prof. Lam said, adding that pachydrusen is a new kind of description within the pachychoroid disease spectrum which needs further description about its significance.

While possible contributors to the pathogenesis of AMD include oxidative stress caused by aging, pollutants and smoking, as well as blue light damage, fortunately preventive methods exist.

According to Dr. Youxin Chen (China), the first step to prevent dry AMD is controlling the controllable risk factors like smoking, obesity and hypertension. Meanwhile, low pigment ocular density can be mitigated through lutein and zeaxanthin supplementation.

“From the AREDS study, it is advisable for persons older than 55 years to have dilated eye examinations to determine their risk of developing advanced AMD. The AREDS2 study also showed that lutein plus zeaxanthin was associated with a reduction in the risk of progression to late AMD compared with beta carotene, and could be an appropriate carotenoid substitute in the AREDS2 supplements,” he said.

On the other hand, Dr. Geoffrey Broadhead (Australia) suggested that the risk of dry AMD progression can be reduced by smoking cessation, maintaining a healthy body mass index, and the maintenance of a Mediterranean style diet – which includes increased intake of fish (particularly tuna) and green leafy vegetable, and decreased intake of red meat and high glycemic index (GI) foods. 🍷



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