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Message from the Editor

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Dear Members, Colleagues, and Friends,

As the vibrant hues of autumn settle over our city, it is my distinct pleasure to present to you the Fall issue of the Hong Kong Institute of Allergy newsletter. This edition is a testament to the dynamism, collaboration, and scholarly excellence that defines our allergy community in Hong Kong and beyond.

We are incredibly honoured to feature a special interview with our Founding President, Dr. Donald Yu. His visionary leadership and unwavering dedication laid the cornerstone for our Institute, and his insights provide a invaluable historical perspective as we navigate the future of allergy care. His wisdom continues to inspire our mission.

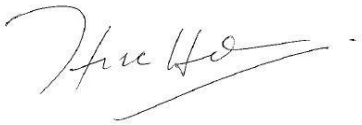
This issue is packed with cutting-edge clinical and scientific content. Our clinical section addresses complex patient scenarios, from the complexities of Eye Allergy to the challenging management of Blinding Optic Neuritis in a Patient with Steroid Allergy, authored by Drs. Ka-wai Kam, Sophia Li, Andrew Chun-yue Mak, and Jane C.Y. Wong. We also continue our vital focus on the role of Allied Health Professionals, with Sonal Hattangdi-Haridas providing an evidence-based review on The Therapeutic Efficacy of a Low-Histamine Diet.

A significant highlight is the showcase of our HKIA Research Grant 2022 outcomes. The groundbreaking work by Jane C.Y. Wong and James K. Y. Hooi demonstrates A New Model for Allergy Care, where pharmacists are leading the charge in penicillin allergy delabelling, significantly improving patient quality of life. This is a powerful example of innovative, multidisciplinary practice.

We also extend our heartfelt congratulations to the award winners of the 13th Hong Kong Allergy Convention (HKAC 2025). The research by Yan-yau Ching on pediatric anaphylaxis and Aixuan Li on the role of Interleukin-40 in allergic asthma represents the exceptional caliber of science emerging from our region.

Finally, our meeting highlights underscore our active engagement on the world stage, from Freya K. L. Chung's account of the AAAAI/WAO Joint Congress 2025 to the successful hosting of the EAACI Hong Kong Allergy School 2025 — the first of its kind in Asia — and our own HKAC 2025.

My sincere gratitude to all the authors, reviewers, and committee members whose hard work has made this publication possible. I hope you find this issue both enlightening and inspiring.



Dr. Marco H.K. Ho
Editor, HKIA e-newsletter
The Hong Kong Institute of Allergy

Stay curious, stay informed.

Interview with Founding President – Dr. Donald Yu
Learner's Mindset is Crucial to Success

Dr. Donald Yu is a prominent figure in the field of allergy and immunology in Hong Kong, renowned for his extensive contributions to both clinical practice and research. Dr. Yu completed his medical degree at the University of Hong Kong, where he nurtured his interest in respiratory medicine. He trained overseas in early 60s, particularly in the UK, gaining valuable experience in clinical and research methodologies related to allergies.

Dr. Yu expressed that he was fortunate to had been arranged for training at the Brompton Hospital in the mid-60s by Prof. MacFadzean, because in the early 60s, it was the beginning of a shift in the approach to chest diseases. There was a change from the traditional dictated clinical but superficial approach to a more pathophysiological understanding and adoption of evidenced based management in respiratory medicine. Because of this evolution that allergy was recognised, established and propagated as a main branch at the Brompton Hospital in the 60s. This had influenced his present philosophy.

In 1996, Dr. Yu played a pivotal role in founding the Hong Kong Institute of Allergy (HKIA), an institute aimed at advancing research, training, and public awareness in allergy. His clinical practice has focused on treating a wide array of allergic disorders, including asthma and food allergies.

Question 1: Looking back at the founding vision of the Hong Kong Institute of Allergy, what has been the most significant or unexpected evolution in its mission or in the field of allergy treatment since you started?

Dr. Yu reflected on the significant evolution of the Hong Kong Institute of Allergy since its founding. He noted that in the 1990s, the landscape of allergy treatment was dramatically different. With advancements in research and clinical practices, the Institute has shifted from basic allergy treatments to a more integrated approach, incorporating cutting-edge therapies and personalized medicine.

He highlighted the contributions of two renowned colleagues, Dr. Helen Chan, who also played a pivotal role in founding HKIA; the institution could not have been that successful without her efforts, and Dr. Tak Lee, who retired from being the head of the MRC Allergy Unit in the UK, which he formed. Dr. Chan and Dr. Lee had been instrumental in advancing the Institute's mission. When Dr. Tak Lee retired and came back to Hong Kong, Dr. Helen Chan and Dr. Yu made great efforts to invite Dr. Lee to lead the Institute. With Dr. Lee's extensive experience in the UK, he helped redesign the training programs for allergists in Hong Kong and even created more positions for allergists in HA hospitals. "His efforts have greatly improved patient outcomes by integrating allergy services into the broader healthcare framework," he added.

Dr. Yu emphasized that collaboration between local and international researchers had been pivotal in this evolution, allowing the Institute to adopt best practices and innovative treatments from around the world. "This shift not only enhanced our capabilities but also positioned Hong Kong as a leader in allergy research in the Asia-Pacific region," he stated.

Question 2: With a long and distinguished career, how have you continued to find new challenges and interest in your work?

Dr. Yu emphasized that maintaining a "learner's mindset" had been crucial throughout his career. "Research and medicine are ever-evolving, and one must remain curious and open to new knowledge," he stated. He continuously sought opportunities to learn from colleagues through their latest research studies. Attending international conferences and collaborating with global experts allowed him to stay abreast of new treatments and methodologies. "The desire for growth keeps my work exciting and relevant," he remarked. He also believed that stepping out of one's comfort zone was vital for growth, "As you embrace new challenges, what was once intimidating becomes a part of your professional journey."

Question 3: To ensure the Hong Kong Institute of Allergy remains a leading and relevant institution, in what key areas do you believe it is critical to innovate?

Dr. Yu underscored the importance of public education, research, and clinical practices in keeping the Hong Kong Institute of Allergy at the forefront. He stated, "We must innovate in our approaches to patient education, ensuring that the public understands the 'impact" of allergy to health and knows how to respond effectively."

In addition to public education, Dr. Yu emphasized the need for more clinical meetings and opportunities to engage new young trainees in the unraveling of the complex pathophysiology and management of allergic diseases. He also emphasized that research must focus on emerging issues, such as food allergies and anaphylaxis, to stay relevant. "We must also integrate new technologies and treatment protocols into our clinical practices, ensuring that our healthcare management approach is both effective and evidence-based," he asserted.

Furthermore, he recognized the need for continuous research into the changing landscape of allergic diseases. "As we see more complex allergic conditions, adapting evidence-based guidelines and incorporating innovative treatments into clinical practices are essential.

Cake cutting ceremony at
HKIA 20th Anniversary Dinner

Happy moment at
HKIA 20th Anniversary Dinner

Group photo at
HKIA 20th Anniversary Dinner

Photo taken at council meeting in 2014

Celebrating Dr. Tak Lee's birthday in 2016

Photo taken at council meeting in 2021

Receiving the Lifetime Distinguished Service Award in 2017 from Dr. Helen Chan and Dr. Marco Ho

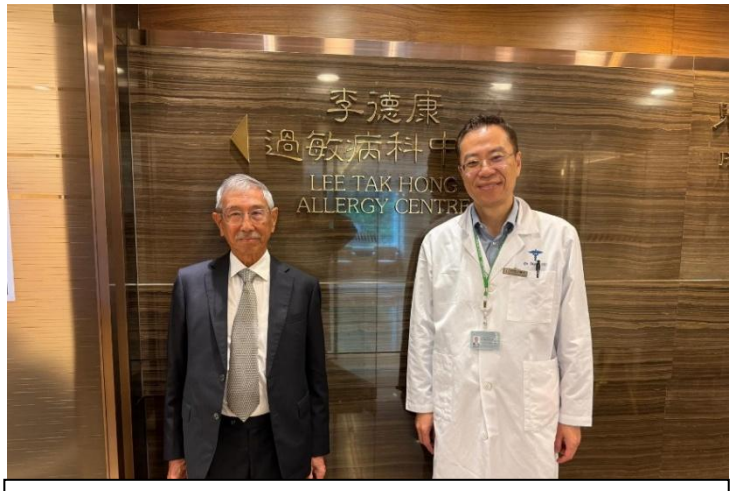


Photo taken with Dr. Marco Ho at Lee Tak Hong Allergy Centre of Hong Kong Sanatorium & Hospital

Managing Blinding Optic Neuritis in a Patient with Steroid Allergy

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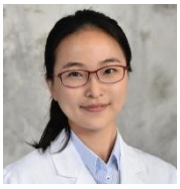

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Introduction

Acute optic neuritis is a sight-threatening ophthalmic condition that requires early work-up and medical intervention. The characteristic features of optic neuropathy is classified into (1) drop in vision, often accompanied by pain in most optic neuritis; (2) altered colour vision, also known as dyschromatopsia, often evaluated with a red pin to quantify the amount of desaturation, or with standardized colour vision tests; (3) reduction in vision field, either in the form of constriction, or scotoma, this can be clinically tested with a confrontation visual field examination; and (4) a positive relative afferent pupillary defect, also known as Marcus Gunn pupil, which depicts a paradoxical dilatation of pupil upon swinging torch test.

Initial Presentation

Madam S, 36 year old lady with history of thyrotoxicosis without eye involvement, presented with subacute visual impairment of her right eye. She also noticed increasing loss of her visual field. Her vision deteriorated to only hand motions after 3 days, accompanied by persistent headache. There was no photopsia, neck stiffness, jaw claudication, hiccups or any localizing neurological signs. She denied recent vaccination. Travel and contact history was unremarkable.

On the day of her first visit (8 days after onset), her right eye vision remained at hand motion. There was a positive reverse afferent pupillary defect over the right eye, and a 50% red desaturation. Pain was elicited upon extraocular movement which was full. The right eye vision was too poor to enable double vision. Confrontational visual field was grossly intact.

Optical coherence tomography showed increased retinal nerve fibre layer thickness of her right eye, indicating optic disc swelling. Macular scans were normal. Serological tests including NMO and MOG antibodies

were negative. As a part of the workup, computer tomography of brain and orbit with intravenous contrast was performed with prophylactic intravenous hydrocortisone, based on a positive label of allergy to intravenous contrast a year ago in another hospital. She reported dizziness and high blood pressure requiring treatment at the emergency department.

Anaphylactic shock following intravenous hydrocortisone prophylaxis

Soon after intravenous hydrocortisone, Madam S developed angioedema, hypotension and desaturation requiring 15L/min oxygen. There was also diffuse maculopapular rash over bilateral chest and back. She was immediately transferred to the ICU for a diagnosis of anaphylactic shock, likely related to the use of intravenous hydrocortisone. Intramuscular adrenaline, chlorphenamine, phenylephrine was administered, along with fluid resuscitation and dopamine infusion.

Given the context of optic neuritis, standard treatment should include high dose intravenous corticosteroid (usually methylprednisolone at 1gram daily for 3 days, followed by 11 days of oral prednisolone at 1mg/kg/day) according to the Optic Neuritis Treatment Trial (ONTT). However, the anaphylactic shock following hydrocortisone infusion, we did not proceed with this option. Nonetheless, her right eye vision returned to 20/50, likely the result of hydrocortisone.

Recurrence

A month later, she returned to the eye clinic with a recurrence of the right optic neuritis. Similar to her first episode, her vision dropped to hand movement only, and there was accompanying right ocular pain, as well as facial numbness over 1st, 2nd and 3rd trigeminal regions. Fundus examination revealed a recurrence of optic disc swelling of the right eye.

In view of the short interval between two attacks, and the absence of recovery in this relapse, drug challenge was suggested to patient after consulting Queen Mary Hospital Immunology team. Madam S was transferred to QMH with the plan to perform drug challenge under the supervision of the immunology team.

Prednisolone 50mg was given as a tolerance test without invoking any reaction, and Madam S completed mega-dose of 1,250mg oral prednisolone for 3 days in ICU setting. The dose started from 500mg on the first day, then stepped up to 750mg in 5 divided doses (100/100/50/250/250) on the third day. On the fourth and fifth day, 1250mg oral prednisolone was given in 5 equal doses (250mg x 5). Though she complained of subjective shortness of breath, she did not require any oxygenation and remained haemodynamically stable throughout. Paired tryptase levels were also not elevated.

On the day of discharge (given a total of 1250mg x 3 days, 55mg x 2 days), her right eye vision improved to Counting Fingers, with reduced discomfort upon extraocular movement. Our neuro-ophthalmological team decided to slowly taper her oral prednisolone in the following 3 months.

Serial optic nerve scans shows resolution of her right optic disc swelling at about 6 months of treatment. Automated perimetry revealed a constricted right visual field and she consistently could not read any plates other than the test plate on Ishihara test. Given the mild degree of optic nerve thinning, a mild RAPD, preserved stereopsis of 40- 100 seconds of arc (roughly equal to BE 20/20 to 20/70 vision), there was a suspicion of functional overlay.

Workup at QMH Immunology

The Basophil Activation Test was positive to hydrocortisone (Chemil), while hydrocortisone (oral) and methylprednisolone were both negative. Skin Prick Test (SPT) to hydrocortisone IV (Chemil) at 1/10th yielded a 3mm wheal, whereas at undiluted form at 10mg/ml yielded a 4mm wheal. As the brand of hydrocortisone contains the excipient osmofundin and has a sodium succinate conjugate, further skin tests were performed. SPT and intradermal test (IDT) to osmofundin, methylprednisolone (containing the conjugate sodium succinate and excipient lactose monohydrate) was negative. Drug provocation test (DPT) was performed using oral hydrocortisone, to which Madam S developed pseudoseizure as evidenced by normal bloods, neuroimaging, angiography as well as electroencephalogram. No symptoms compatible with allergic reaction was observed. DPT to methylprednisolone was given in graded manner up to 250mg, and Madam S developed reactions including chills, headache, flushing and chest tightness). Tryptase was however not elevated. Clinically there was no desaturation, hypotension nor rash, but Madam S appeared very tired with slowed response. The final conclusion was succinate allergy, and an adverse drug reaction of pseudoseizure to hydrocortisone. The

recommendations from immunologists were to avoid hydrocortisone (both oral and intravenous), as well as methylprednisolone. Additionally, we should avoid intravenous medications containing a succinate conjugate. Prednisolone and dexamethasone can be used safely if indicated in the future.

Lessons learned

Multi-disciplinary approach is crucial to the success in the management of this patient with a blinding condition. While true allergy to hydrocortisone is rare, an individual can be allergic to ta particular salt form (in this case, succinate), or the excipient of the medication. A careful drug history can help clinicians diagnose drug allergy more accurately.

Megadose oral prednisolone can be used to treat acute/subacute optic neuritis, when methylprednisolone is contraindicated. Regardless of the route of administration, high dose corticosteroid is associated with systemic risks such as peptic ulceration, osteoporosis, alterations in blood pressure and glucose, immunosuppression, and avascular necrosis of the hip. These risks have to be explained and weighed against the benefits of treatment.

Among Asians with optic neuritis, most are considered atypical and unlike Caucasians, they are not associated with Multiple Sclerosis. Instead, they are more commonly associated with Neuromyelitis Optica (NMO), or in younger patients, Myelin Oligodendrocyte Glycoprotein (MOG) antibody disease. A small fraction of atypical optic neuritis may show negative antibodies to either NMO or MOG. To treat the inflammation of the optic nerve, high dose systemic corticosteroid is often used in the acute stage, followed by immunosuppression with steroid-sparing agent in the maintenance phase. Alternative treatment options included intravenous immunoglobulins, plasma exchange (PLEX), or biologics such as Rituximab, in case of recalcitrant neuritis with poor response to 1st and 2nd line treatment.

Acknowledgement

We would like to once again acknowledge the QMH Immunology Team for taking care of Madam S, during her most difficult time.

The Therapeutic Efficacy of a Low-Histamine Diet: An Evidence-Based Review

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Introduction

Histamine, a vasoactive amine and its receptors H1R to H4R play an important role in immune responses, stomach acid regulation and neurotransmission. MAST cells are the major producers of Histamine. H1R is seen in many cells including mast cells and involved in hypersensitivity reactions, H2R in Th1 lymphocyte cytokine production and H3R in blood brain barrier function. H4R, found in abundance on mast cells, exacerbates cytokine and histamine generation.[1] Table 1.

Histamine in Allergic Disease: Why Bother With Nutrition and Diet?

Histamine is considered a primary mediator in the pathogenesis of allergic disorders, including urticaria, atopic dermatitis, allergic rhinitis, and asthma. H1R and H4R have been implicated. Histamine binding to H4R on mast cells induces degranulation and the synthesis of key pro-inflammatory mediators—including leukotrienes, TNF-α, and additional cytokines potentiating a positive feedback loop that amplifies and sustains the allergic inflammatory cascade. By polarizing the adaptive immune response toward a T-helper 2 (Th2) phenotype. This immunomodulation is achieved through the upregulation of Th2-associated cytokines (IL-4, IL-5, IL-13) and the concomitant suppression of Th1-type cytokines (IFN-γ, IL-12). [1]

Evidence suggests antihistamines targeting H1R alone may have reduced efficacy in multi-receptor symptomatology such as acute pruritus, eczema, allergic asthma. Consumption of foods egg, milk, peanuts, tree nuts, fish, and shellfish naturally high in histamine have been implicated. [1]

Histamine Intolerance (HI): Does the term 'pseudo-allergy' justify patient discomfort and pathology?

In certain individuals higher histamine levels produce discomfort similar to allergies without the underlying sensitivity to specific allergens. Histamine intolerance known commonly as 'pseudo-allergy' results from a dis-equilibrium between accumulated histamine and histamine degradation. [2]

Consuming food with naturally high histamine levels including certain stored, aged food, certain types of fruit can add to the burden. Deficiency in DAO (Diamine Oxidase), the primary enzyme responsible for degradation of ingested histamine further encourages histamine accumulation and is a recognized contributor to HI symptoms range from urticaria, fatigue, to severe abdominal pain and recurrent diarrhoea as seen in table 1. [3,7]

Differential Diagnosis of Allergies and Histamine Intolerance:

Difficult to differentiate from clinical features, correct diagnosis would support a more accurate line of treatment and may unearth underlying etiology. (Table 1) HI specifically exhibits with variety and inconstancy of symptoms in the same individual. Accurate diagnosis requires a time-demanding multi-disciplinary approach encompassing the systematic elimination of disorders with similar manifestation.[4]

Diagnosis can be ascertained through serological testing. In food allergy, the activity of serum tryptase is increased and in histamine intoxication it remains within physiological values.[5] In symptomatic patients, insignificant skin prick and negative IgE tests may warrant screening of the DAO activity levels.[3]

Low Histamine Diet Prevalence, Effectivity and Pitfalls

High histamine levels in allergies and histamine intolerance may both benefit from Low Histamine Diets (LHD). LHD is considered the gold standard in the treatment of Histamine Intolerance. Supplements such as fats, vitamin D, iron, and flavonoids have also been studied and may diminish symptoms along with LHD. [2, 4,6]

Studies found that foods avoided vary according to region and ethnic diets with the most common foods avoided in LHD being not only those having high histamine, but also fermented foods, foods high in putrescine (citrus fruits and banana) and cadaverin (stale fish) which interfere with histamine degradation by DAO. [7]

Commonly avoided foods in a Low Histamine Diet are listed in Table 2. Due to paucity of local data this table is based on data from John Hopkins Medicine and a review of Spanish diets.[7]

Clinical studies have been gathering increasing evidence on the efficacy of LHD in improvement and remission of symptoms in a spectrum of illness.[8] A marked reduction in symptoms and improvement in quality of life has been documented in Chronic Spontaneous Urticaria. [9]

Evidence suggest type 2 diseases with known aggravation from higher histamine levels such as asthma (significant mean airflow obstruction and longer duration of symptoms), and Atopic dermatitis (pruritus) may also benefit from LHD. [10, 11]

Migraines suffers have been found to have higher Serum IgE and histamine levels, than controls with all Migraineurs recording higher histamine levels during acute attacks than in non-headache intervals. Histamine elimination diets significantly reduced the number of attacks. [9]

Judicious therapeutic application of low histamine diet, incorporating essential micro, macronutrients with an aim of successful re-introduction of eliminated foods is recommended.[7]

In HI, underlying causes of reduced DAO activity such as SIBO, Leaky gut, certain medications (Table 2) and genetic disposition should be identified and addressed.[12]

In summary, present evidence suggests application of a Low Histamine Diet is of significant therapeutic value in Histamine Intolerance and a valuable adjunct therapy in allergies, to reduce the overall histamine burden and improve resilience. This is supported in a spectrum of histamine implicated diseases including food allergies, Chronic Spontaneous Urticaria, asthma, atopic dermatitis with pruritus, migraines, dermatological symptoms and gastrointestinal discomforts related to HI. Further local-based studies identifying local high histamine foods and dietary triggers would support a more relevant targeted Low Histamine Diet for the region.

Table 1 : Anatomical Map of Histamine receptors H1-H4 and symptoms related to histamine intoxication.[7]

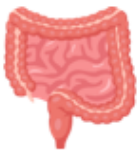
Gastrointestinal tract (H1, H2, H3, H4) 	Bloating Flatulence Diarrhea Abdominal pain Constipation Nausea/Emesis
Skin (H1, H2, H4) 	Pruritus Urticaria Eczema Flush Swelling
Nervous system (H2, H3) 	Headache Dizziness
Respiratory apparatus (H1, H2, H3) 	Rhinorrhea Rhinitis Nasal congestion Sneezing Dyspnoea
Cardiovascular system (H1, H2) 	Tachycardia Hypotonia Collapse

Table 2: Medication with Active with a demonstrated inhibitory effect on the DAO enzyme.[13]

Antimalarial	Chloroquine
Antibiotic	Clavulanic acid, Colistimethate, Cefuroxime
Antihypertensive	Verapamil, Clonidine, Dydralazine
Antiprotozoal	Pentamidine
Antituberculosis	Isoniazid
Analgesic	Metimazole
Analgesic and Anti-inflammatory	Diclofenac
Mucoactive	Acetylcysteine
Antidepressant	Amitriptyline
Antiemetic	Metoclopramide
Muscle Relaxant	Suxamethonium
Antihistamine (H2 antagonist)	Cimetidine
Antihistamine (H1 antagonist)	Prometazina
Vitamin C	Ascorbic acid
Vitamin B1	Thiamine

TABLE 3: Foods commonly avoided in Low Histamine Diet. [7,14]
Aged/fermented cheese : parmesan, blue cheese, brie,
Alcohol, especially beer and wine.
Artificial colors and flavoring
Avocado, kiwi, pineapple, papaya, strawberries, passionfruit, plum, citrus fruit, bananas and dried fruit
Nuts : peanuts, walnuts, cashews.
Seasonings: allspice, anise, cinnamon, chili powder, clove, curry powder, cayenne, msg, nutmeg, paprika.
Chocolate
Eggplant, Spinach , Squash., Tomatoes
Eggs, especially raw egg white, Shellfish
Fermented foods like kimchi, sauerkraut, tempeh, yogurt, kefir, sourdough, etc.
Fish, especially if canned, stale, seasoning containing dry fish
Flavored milk, sour cream and buttermilk.
Leftovers that have not been frozen
Legumes – beans, chickpeas, soybeans, peanuts, etc. Especially if canned.
Licorice
Pickled/vinegar-containing foods like pickles, olives, mustard, ketchup, etc.
Probiotics
Processed\aged meat: hot dogs, sausage, deli meat, jerky, canned meat, etc.
Soy and soy products – soy sauce, soybeans, soy lecithin, tofu, etc.
Unpasteurized milk including goat and sheep
Wheat

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A New Model for Allergy Care: Pharmacists Deliver Safe, Effective Delabelling and Superior Quality-of-Life Gains in Penicillin Allergy

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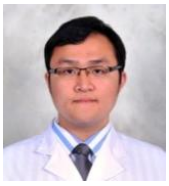

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Key Points

- A new pilot study from Hong Kong (HK-PAPI) provides the first direct, head-to-head comparison showing that trained pharmacists are as effective and safe as allergists in delabelling low-risk penicillin allergies(1).
- The overall delabelling rate was 94%, similar with allergist-led or nurse-led pathways(2, 3).
- Patients managed by pharmacists reported significantly greater improvements in health-related quality of life (HR-QoL), highlighting a unique benefit of pharmacist-led care.
- The study advocates for the expansion of multidisciplinary allergy services to address the global burden of inaccurate penicillin allergy labels.

For years, the problem of mislabeled penicillin allergies has been a significant issue in healthcare. Besides difficulty with antibiotic prescription, penicillin allergy labels are associated with use of broad-spectrum antibiotics and higher rates of antimicrobial resistance, longer hospital stays, higher healthcare costs. With up to 90% of these labels being incorrect, they lead to the use of broader-spectrum antibiotics, higher healthcare costs, increased antimicrobial resistance, and unnecessary anxiety for patients. However, a severe shortage of specialist allergists has created long waiting lists, limiting access to the gold-standard testing needed to remove these incorrect labels(4). Additionally, most of these penicillin allergy labels are considered low risk, meaning, by history taking alone, there are features that predict whether this will be a genuine allergy label. ***The key is how can non-allergists (physicians, nurses and pharmacists) help tackle this penicillin allergy pandemic?***

In Hong Kong, consensus statements have highlighted the role of non-allergists in performing low risk penicillin allergy delabelling(5). Previous studies have shown the role of nurses and non-allergy physicians in the context of 4 tertiary hospitals(2, 3). In Asia, it is also recommended to perform direct drug challenges in low-risk cases (6). In a bold move to address this gap, the **Hong Kong Penicillin Allergy Pharmacist Initiative (HK-PAPI)** was launched. It demonstrates a powerful and expanded role for pharmacists in drug allergy delabelling.

The HK-PAPI study is the first of its kind in Asia to directly compare pharmacist-led and allergist-led evaluations for low-risk penicillin allergy(1). Over one year, 323 patients were randomly assigned to be assessed by either a trained pharmacist or an allergist. The study demonstrated comparable effectiveness: The rate of successful penicillin allergy delabelling in the 2 groups was 92.8% for pharmacists vs. 93.9% for allergists. Importantly, there were no severe or systemic reactions in either cohort, confirming that the pharmacist-led pathway is as safe as the standard allergist-led care when following structured protocols. Beyond effectiveness and safety, the study uniquely measured changes in health-related quality of life (HR-QoL) using a validated tool (the DrHy-Q questionnaire)(7) that assesses anxiety related to drug allergy. Both groups demonstrated significant improvements in quality of life

after evaluation**.** While both groups showed significant improvements after evaluation, the reduction in DrHy-Q scores (indicating improved HR-QoL) was more than double in the pharmacist cohort compared to the allergist cohort (-24.6 vs. -9.19, p<0.001). This suggests that leveraging the pharmacists' knowledge and comprehensive counselling is even more beneficial than allergists. This is particularly important in the overall impact of delabelling – whether delabelling translates to the use of penicillin antibiotics.

It is important to note that this study was conducted within a supportive hospital setting where pharmacists received specialized training and had oversight from allergists. For such models to be replicated successfully, ensuring adequate training and establishing frameworks for ongoing auditing is essential. Looking ahead, the future lies in expanding this cross-disciplinary approach. The next steps include empowering pharmacists to operate within broader non-allergist delabelling pathways, such as the established HK-DADI network, to further increase capacity within other tertiary hospitals. Beyond the hospital walls, there is significant potential to explore the role of community pharmacists in the initial identification and triage of patients with unverified allergy labels, bringing this critical service closer to the public.

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A Non-allergist's Experience at the AAAAI/WAO Joint Congress 2025, San Diego, CA, USA Feb 28 - March 3

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Some time this year, I took a break from clinical work, during which I was presented with this conference opportunity, which I gratefully and promptly accepted. In medical school at HKU, you were told how to treat anaphylaxis, and to tell urticaria from angioedema. I thought nothing much of it until I was being reluctantly ushered to the Hong Kong Sanitorium Hospital's Allergy Centre as part of the curriculum during my final year in medical school. I sat in a few consultations with the Allergist where the patients had come for a variety of conditions that were not life-threatening but life changing – refractory atopic dermatitis, chronic spontaneous urticaria, multiple food allergies, to name a few. Dr Tak-hong Lee, whom the Centre was named after, was an utter inspiration. I can then see the appeal in the work of an Allergist.

The Conference itself was hosted at the Conference Centre near downtown San Diego. It is a spacious modern infrastructure that sprawls along the bayfront and abuts the Seaport Village which at sunset becomes nearly as busy as the Conference. Four days of events ensued with a pressing sense of urgency. Attendees faced 'happy dilemmas' – having to pick among a galore of courses in Allergy, Asthma or Immunology, with up to twelve of these running in parallel to each other, if not back-to-back with other sessions of the day. This year's theme was Climate Change and Allergic Diseases: Global Impact on Health. Our Allergy & Immunology team from HKU presented three studies in the poster sessions, while Dr Philip Li delivered a distinguished lecture on Penicillin Allergy in the Asia Pacific.

I appreciated many of the workshops. They inspired reflections about my current practice in a busy hospital under the Hospital Authority. I was presented with updates from the 2025 Management and Prevention of Hypersensitivity Reactions to Radiocontrast Media: A Consensus Statement from the American College of Radiology and the American Academy of Allergy, Asthma & Immunology (under review at the time). Contrary to our practice, where a history of adverse reaction often results in routine steroid prophylaxis for future studies, the consensus states that premedication is not recommended in patients with a history of mild immediate iodinated contrast media (ICM) hypersensitivity reactions, but should be considered in moderate hypersensitivity reactions and is advised in severe reactions (1). Meanwhile, ICM switch for future contrast studies is advised regardless of reaction severity, as fewer events were demonstrated in the ICM switch groups in the meta-analysis by Umakoshi et al. (risk ratio = 0. 39) (2). Skin testing is encouraged in severe reactions to identify a skin test negative contrast, and desensitization may be considered in some instances (1).

It is not uncommon to manage asthma patient in the general ward or out-patient settings. A Plenary lecture by Henry Ford Health provided a recap of the asthma management guidelines - based on the 2020 'update' (3). Changes from the 2007 guidelines were made to strongly recommend single maintenance and reliever therapy 'SMART therapy' with low-dose ICS-formoterol in step 3 and medium-dose ICS-formoterol in step 4. Regarding newer directions in asthma, identifying asthma endotypes T2-high/ T2-low using nasal epithelial transcriptomic profiles was proposed, since available biomarkers are not sufficiently accurate or are hard to implement in practice (IgE, blood/sputum eosinophils, FeNO), yet this will not be applicable to daily practice.

A non-allergist such as me benefited from a succinct briefing of 'what's hot' in the form of the Journal of Allergy and Clinical Immunology: In Practice (JACI: in Practice) Year-in-Review Workshop. A very large study confirms safety of direct penicillin challenge in adults and

highlights potential for false positive skin tests: of 1002 adults with low-risk penicillin histories who underwent skin test and then drug challenge (regardless of skin test), only 1/1002 had a mild immediate reaction (pruritic rash on chest), and skin tests have a positive predictive value (PPV) of 3. 6% for an immediate reaction (4). Another study determined the maximal non-irritating skin testing concentration of beta-lactam antibiotics involved 747 adult subjects. It concludes that the most non-irritating concentrations were 2-50x high than prior recommendations, with delayed intradermal (IDT) concentrations higher than immediate IDT, while further studies are needed to determine if these concentrations will enhance the accuracy of skin tests (5). Another study on antibiotic allergy showed that 2-step challenge appears safe for low-risk cephalosporin allergy in children, where of the 136 direct graded oral challenges, 5.1% had an immediate and 4.4% a nonimmediate reaction, respectively (6). In high-prevalence HIV settings, first-line antituberculosis-DRESS is a significant problem. Porter et al. publishes that a sequential and additive drug challenge (SADC) of first-line TB drugs optimizes their reinitiation, but the clinical presentation of SADC-associated reactions are markedly heterogeneous and there are no clear predictors of outcomes (7). Regarding chemotherapy, Lee et al. found that carboplatin-prescreening IDTs significantly reduced unanticipated immediate hypersensitivity reactions (IHRs) in patients receiving repeated carboplatin doses, an 83% decrease compared to a pre-implementation period (8). It is very encouraging to see that our familiar HK-DADI2 study for low-risk penicillin allergy delabelling was featured in the highlights (9). And of course, our other study validating a 6-item quality-of-life (QoL) questionnaire of patients with drug hypersensitivity (DrHY-Q6) was featured as well (10).

Jamjanya et al. evaluated treatment for acute urticaria in a systemic review and meta-analysis, which showed that 1st generation antihistamines were more effective than H2 blockers but caused more sedation. There was no difference in pruritus at 2 hours after IV cetirizine vs IV diphenhydramine, with fewer returns to the Emergency Department and less sedation with IV cetirizine (11). Another systemic review and meta-analysis showed large variability of urticaria response to systemic corticosteroids, with minimal effect if responsive to antihistamines and modest effect if antihistamine-resistant, with odds ratio of side effects similar to effectiveness (12). Other highlighted findings on urticaria include: 31% of chronic urticaria patients (2521 patients from the CURE registry) reported extra-cutaneous symptoms, with joint pain and malaise most common, which are associated with lower urticaria control and worse QoL (13); in chronic inducible urticaria (CIndU), avoidance of triggers achieved control in only 6-25% and rates of control with current guidelines were lower with CIndU only compared to CIndU with concomitant chronic spontaneous urticaria (CSU) (14). An Italian study on hereditary angioedema (HAE) revealed that heart disease, acute myocardial infarction, HCV infection and appendectomy rates were higher in HAE than general populations, and highlighted potential harms of androgen therapy in HAE, which include hypertension, diabetes, hyperlipidemia, hepatic angioma and focal nodular hyperplasia (15). Meanwhile, a French cohort of monoclonal gammopathies of undetermined significance (MGUS)-associated angioedema (AE) due to acquired C1 inhibitor deficiency (AAE-C1-INH) demonstrated that this cohort had younger MGUS diagnosis (median age 66), half had angioedema and MGUS at presentation, 20% had AE before MGUS, and overall had higher rates of progression to malignancy at 4% per patient year vs 1% in the general population, requiring annual surveillance by a hematologist (16).

I was happy to sit in a myriad of other courses, and just to name a few: an allergist's essentials to chronic cough, optimal management of urticaria, remibrutinib in CSU by Martin Metz, omalizumab in the treatment of multiple allergies 'OUtMATCH', allergen immunotherapy, challenging cases in adult food allergy. It is no doubt desirable if one could retain all this information. I, meanwhile, had to sneak out for occasional breaks from the blooming frontiers of knowledge in the San Diego Convention Center.

The conference commenced at such a lovely venue, that on 2 March, 2025, the few of us from Hong Kong ran the annual 5K AAAAI Foundation run. The mellow light of a 5pm sun, the sea breeze which made it slightly chilly, and the jazzy Sunday afternoon crowd at Seaport Village and Ruocco Park inspired an unforgettable evening. In the same hurtling spirit as the conference itself, we also managed a 6 o'clock morning run through Downtown to the city's acclaimed Balboa Park, and drove 2 hours to Los Angeles when the last workshop of the day concluded to catch Jimmy O Yang in his Big and Tall tour. A little traffic in our schedules had not been a bad decision.

In just four days in San Diego, I had learnt and I had fun, a huge thank you to CSL Behring Asia Pacific Ltd. for the sponsorship and Dr Philip Li for the nomination. Until next time.

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Self-injectable Adrenaline Access and Outcomes in Pediatric Anaphylaxis: Insights from the Asia-Pacific Research Network for Anaphylaxis

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Objectives:

Pediatric anaphylaxis is under-investigated in Asia-Pacific, with its management remains under-reported. This study aims to report and compare the management practice of pediatric anaphylaxis among Asia-Pacific localities.

Methods:

Data from the Asia-Pacific Research Network for Anaphylaxis, a prospective regional pediatric anaphylaxis registry with 16 participating centers from Hong Kong, Singapore, Thailand and Qingdao, was analyzed. The management strategies across regions were compared. The outcomes of patients with and without self-injectable adrenaline before anaphylaxis were also contrasted.

Results:

A total of 721 anaphylaxis episodes in 689 patients, spanning from 2019 to 2022, were included. Overall, while adrenaline was administered in 434 (60.2%) episodes, only 64 (8.9%) were given pre-hospital adrenaline. Almost all patients in Thailand (95.8%, 113/118) and Singapore (93.3%, 237/254) received adrenaline, whose usage was significantly lower in Hong Kong (30.1%, 66/219) and Qingdao (13.8%, 18/130; p <.001). Only 89 (12.3%) children owned an adrenaline device before an episode of anaphylaxis, with significantly different rates of ownership among regions (p <.001): 18.9% (48/254) children in Singapore possessed a device, followed by 15.3% (18/118) in Thailand, 10.5% (23/219) in Hong Kong, and none in Qingdao. Compared to individuals without an adrenaline device before an anaphylactic event, those who owned one had significantly higher overall (80.9% vs. 57.3%, p <.001) and pre-hospital use of adrenaline (49.4% vs. 3.2%, p <.001), shorter time to first-dose administration (mean: 73.4±98.2 minutes vs. 159.8±476.5 minutes, p <.001), lower proportion of severe anaphylaxis (World Allergy Organization Grade 4-5 reactions; 9.0% vs. 18.4%, p =.028) and reduced length of admission (mean: 1.0±0.7 days vs. 2.3±7.5 days, p <.001).

Conclusions:

Disparities in anaphylaxis management persist in Asia-Pacific, likely due to limited adrenaline autoinjector access in developing countries, and underuse in developed regions. Patients who owned an adrenaline device demonstrated significantly better outcomes than those who did not.

Best Oral Presentation Award presented by Dr. Philip Li at the 13th Hong Kong Allergy Convention

Role of Interleukin-40 in Modulating Macrophage and B cell Function to Promote Inflammation in Allergic Asthma

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Objectives:

To investigate the functional role of interleukin-40 (IL-40) in allergic asthma and assess its potential as a novel therapeutic target. Given the limitations of current treatments and the unknown contribution of IL-40 in disease pathogenesis, we aimed to explore how IL-40 modulates airway inflammation and immune responses in allergic asthma.

Methods:

To investigate the precise function of the novel cytokine IL-40 in allergic asthma and explore its potential as a therapeutic target, we employed a combination of qPCR, ELISA, spectral flow cytometry, bulk RNA sequencing, and single-cell RNA sequencing. These techniques were applied to samples from asthmatic patients, healthy controls, and a house dust mite (HDM)-induced mouse model to firstly delineate IL-40–associated pathways and characterize relevant immune cell subsets.

Results:

IL-40 expression was significantly increased in both allergic asthma patients and HDM-induced mice, and was associated with heightened airway inflammation and type 2 cytokine responses. Immunophenotyping and functional studies revealed that IL-40 promoted pro-inflammatory macrophage polarization through JAK/STAT1 and p38-MAPK signaling, and was required for B cell development. Neutralizing IL-40 alleviated airway inflammation, indicating that IL-40 orchestrates innate and adaptive immunity in allergic asthma and represents a promising therapeutic target.

Conclusions:

These results reveal IL-40 as a key regulator in allergic asthma and suggest its potential as a biomarker and therapeutic target for airway inflammation.

Best Poster Presentation Award presented by Dr. Philip Li at the 13th Hong Kong Allergy Convention

Hong Kong Institute of Allergy CSU Symposium 2025

26 August 2025

The Hong Kong Institute of Allergy CSU Symposium, titled "**Reimagining CSU Management"** was successfully held on 26 August 2025 (Tuesday) at Renaissance Hong Kong Harbour View Hotel, Wanchai.

This event provided the latest advancements and insights in chronic spontaneous urticaria (CSU) management by renowned experts Prof. Zuotao Zhao and Prof. Martin Metz.

EAACI Hong Kong Allergy School 2025

27 - 29 August 2025

The **EAACI Hong Kong Allergy School 2025,** a collaborative effort between the **Hong Kong Institute of Allergy (HKIA)** and the **European Academy of Allergy & Clinical Immunology (EAACI),** took place successfully on 27 – 29 August 2025 in Hong Kong. This event marked a significant milestone in allergy education and global collaboration.

Themed **"East Meets West"**, this groundbreaking event brought together the expertise from both Eastern and Western regions. More than 30 distinguished global experts shared cutting-edge insights in the fields of allergy and clinical immunology, enriching the knowledge base of all participants.

One of the highlights of the event was the signing of a Memorandum of Understanding (MOU) between HKIA and EAACI. This agreement symbolizes a crucial step towards fostering collaboration and enhancing the exchange of knowledge and resources in the realm of allergy and clinical immunology. It signifies a commitment to furthering advancements in the field through mutual cooperation and shared expertise.

13th Hong Kong Allergy Convention (HKAC 2025)

18 - 19 October 2025

The 13th Hong Kong Allergy Convention (HKAC 2025) was successfully held on 18-19 October 2025 at the Hong Kong Convention and Exhibition Centre with the continuous support from the American College of Allergy, Asthma & Immunology (ACAAI) and the World Allergy Organization (WAO).

With the theme of **"Allergy Beyond Borders"**, a series of translational presentations, where laboratory discoveries directly inform clinical practice, and real-world clinical challenges inspire new research directions was conducted. It connected local innovation with global application for the better allergy care.

The Organizing Committee would like to extend their heartfelt gratitude to the Guest of Honour, supporting organizations, all the speakers and sponsors for their unwavering support.

Annual General Meeting (AGM) 2025

18 November 2025

The Annual General Meeting for this year took place on 18 November 2025 at Kiangsu Chekiang and Shanghai Residents (HK). Council members and attendees enjoyed an engaging evening.

Dr. Philip Li, the President of HKIA reflected on the institute's evolution into a respected global voice in allergy care, underscored the success of the inaugural EAACI Hong Kong Allergy School. Dr Li also highlighted the 13th Hong Kong Allergy Convention, emphasizied its role in shaping regional standards and advancing integrated patient-centered care. Looking ahead to the 30th anniversary, the commitment to expanding partnerships and enhancing public engagement remains strong, reaffirming HKIA's mission to advance allergy care for patients in Hong Kong and beyond.