

APHRS NEWSLETTER

NOVEMBER 2023 | NO.69

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The 16th Asia Pacific Heart Rhythm Society Annual Scientific Meeting Report

Dr. Ngai-Yin Chan, Prof. Hung-Fat Tse, Prof. Chu-Pak Lau, Dr. Kathy Lee

The 16th Asia Pacific Heart Rhythm Society (APHRS) Scientific Session, in conjunction with CardioRhythm 2023, was successfully held at the Hong Kong Convention and Exhibition Centre in Hong Kong from 1 to 3 September 2023 with 2551 participants from 48 countries/regions. The Congress was organized by APHRS and Hong Kong College of Cardiology, and co-organized by the Chinese Society of Pacing and Electrophysiology. Despite Typhoon Saola struck the city with strong winds and rain across the Congress period, the Congress continued to run as planned with three full-days of comprehensive programme.

Registration - Breakdown of Participants by Country/Region

| NO. | COUNTRY/REGION | NO. OF PARTICIPANTS | NO. | COUNTRY/REGION | NO. OF PARTICIPANTS | NO. | COUNTRY/REGION | NO. OF PARTICIPANTS |
|-----|-------------------|---------------------|-----|---------------------------|---------------------|-----|-----------------------|---------------------|
| 1 | Argentina | 1 | 17 | Indonesia | 110 | 33 | Serbia | 1 |
| 2 | Australia | 107 | 18 | Israel | 1 | 34 | Singapore | 143 |
| 3 | Austria | 1 | 19 | Italy | 3 | 35 | Slovenia | 1 |
| 4 | Bangladesh | 2 | 20 | Japan | 209 | 36 | South Africa | 1 |
| 5 | Brunei Darussalam | 6 | 21 | Kazakhstan | 2 | 37 | South Korea | 172 |
| 6 | Cambodia | 19 | 22 | Macao SAR | 16 | 38 | Spain | 2 |
| 7 | Canada | 4 | 23 | Malaysia | 68 | 39 | Sri Lanka | 3 |
| 8 | China | 311 | 24 | Mexico | 2 | 40 | Sweden | 3 |
| 9 | Czech Republic | 3 | 25 | Mongolia | 8 | 41 | Switzerland | 1 |
| 10 | Finland | 3 | 26 | Myanmar | 15 | 42 | Taiwan | 88 |
| 11 | France | 5 | 27 | Netherlands | 5 | 43 | Thailand | 100 |
| 12 | Georgia | 1 | 28 | New Zealand | 12 | 44 | Turkey | 2 |
| 13 | Germany | 15 | 29 | Pakistan | 8 | 45 | United Kingdom | 12 |
| 14 | Guatemala | 1 | 30 | Philippines | 29 | 46 | United States | 200 |
| 15 | Hong Kong SAR | 665 | 31 | Russian Federation | 14 | 47 | Viet Nam | 71 |
| 16 | India | 91 | 32 | Saudi Arabia | 3 | 48 | APAC / ASEAN / Asia | 11 |
| | | | | | | | TOTAL | 2,551 |

Scientific Activities

This year's APHRS Scientific Session brought together 506 world-renowned faculty members, featured 190 sessions in 16 concurrent venues. We had joint sessions with international societies, HRS, EHRA, WSA, etc; APHRS member countries / regions sessions; special sessions including Women in EP, CSPE Sessions in Putonghua, Global Leadership Forum, etc. With the theme "Embracing the Breakthroughs", top-notched speakers from around the world presented a high quality and comprehensive scientific programme covering a wide spectrum of topics in the advancement and innovation in the science, as well as management of heart rhythm disorders. Despite the typhoon, the sessions were very well attended, with only standing space available in some sessions. Both the exhibition and technology suites were crowded.



Opening Ceremony, Convocation of APHRS Fellows and Hong Kong Heart Foundation Lecture

The Opening Ceremony was held on 1 September. Professor Wataru Shimizu, President of APHRS and Dr. Godwin TC Leung, President-Elect of Hong Kong College of Cardiology delivered the Welcome Remarks at the Ceremony. The Honourable Mr. Paul Chan, The Financial Secretary of the Government of the Hong Kong Special Administrative Region (HKSAR) and Professor Chung-mau Lo, Secretary for Health of the Government of the HKSAR was unable to attend the Congress in person due to the adverse weather. Nevertheless, they supported the Congress and addressed the audience by pre- recorded video messages. Dr. Ngai-Yin Chan, Co-Chair of the 16th APHRS Scientific Session and CardioRhythm 2023 delivered a vote of thanks to conclude the Opening Ceremony.

APHRS established the title of "Fellow of the Asia Pacific Heart Rhythm Society" (FAPHRS) in 2019 to reward its members with outstanding contributions to every aspect of clinical practice for the patient's care, research, and education in the field of cardiac rhythm disorders. The title is also given out to recognize those members who have been contributing to the organizational activities of the Society. 10 members were selected to receive this title in 2023. The convocation of the fellows was held immediately after the Opening Ceremony.

Furthermore, Professor Peter J. Schwartz delivered the plenary lecture "The Long QT Syndrome: When Genetics and Clinical Experience Walk Together" at the Hong Kong Heart Foundation Lecture. At the conclusion of the lecture, the Welcome Reception was held at the exhibition area where participants had the opportunity to gather and meet with friends from around the world.





Abstract Presentations

A total of 835 abstracts were received from 33 countries / regions. Among them, there were 19 late-breaking clinical trial presentations, 235 oral paper presentations and 349 poster presentations. A total of 17 abstract presenters received awards on their presentations.

| NO. | COUNTRY/REGION | NO. OF ABSTRACTS | NO. | COUNTRY/REGION | NO. OF ABSTRACTS | NO. | COUNTRY/REGION | NO. OF ABSTRACTS |
|-----|-------------------|------------------|-----|---------------------------|------------------|-----|----------------|------------------|
| 1 | Australia | 47 | 12 | Italy | 5 | 23 | Singapore | 10 |
| 2 | Brunei Darussalam | 1 | 13 | Japan | 90 | 24 | South Korea | 77 |
| 3 | Cambodia | 2 | 14 | Kazakhstan | 5 | 25 | Spain | 1 |
| 4 | China | 248 | 15 | Malaysia | 43 | 26 | Sri Lanka | 2 |
| 5 | Czech Republic | 3 | 16 | Mongolia | 2 | 27 | Taiwan | 9 |
| 6 | Egypt | 1 | 17 | Myanmar | 5 | 28 | Thailand | 22 |
| 7 | Germany | 5 | 18 | Netherlands | 1 | 29 | Turkey | 2 |
| 8 | Hong Kong SAR | 13 | 19 | New Zealand | 1 | 30 | United Kingdom | 13 |
| 9 | India | 37 | 20 | Pakistan | 17 | 31 | United States | 37 |
| 10 | Indonesia | 78 | 21 | Philippines | 19 | 32 | Uzbekistan | 4 |
| 11 | Israel | 2 | 22 | Russian Federation | 14 | 33 | Vietnam | 19 |
| | | | | | | | TOTAL | 835 |

The Faculty and Gala Dinner

The Faculty and Gala Dinner was held on 2 September at a Chinese restaurant located in Hong Kong's latest cultural landmark, the Hong Kong Palace Museum. Participants enjoyed the panoramic views of Hong Kong's Victoria Harbour, as well as the sophisticated traditionally Chinese banquet. The Dinner featured a sensational singing performance by Dr. Michelle Tsui, Obstetrician and Gynaecologist in the private sector, who captured the participants with her singing. The Organizing Committee also took the opportunity to express their gratitude to the generous sponsors.



News and Press Conference

A successful press conference was held on 3 September, discussing the new pacing system and optimization of atrial fibrillation surgery, and their role in improving efficiency and reducing risk. The presenters were all cardiology experts from Hong Kong, where the 16th APHRS Scientific Session was held. Professor Chu-Pak Lau, the Honorary President of the 16th APHRS Scientific Session Organizing Committee, and Dr. Mark T. K. Tam, a Clinical Lecturer at The Chinese University of Hong Kong, shared their findings on how conduction system pacing can reduce heart failure risk and improve heart function, using research data from Hong Kong. Dr. Ngai-Yin Chan, Co-Chairman of the Organizing Committee, who led the first Asia-Pacific clinical trial on optimizing atrial fibrillation surgery with new CT scanning software, also explained how the research results showed the new CT scan technology's ability to increase accuracy, safety, success rates, and efficiency in the surgical procedure, and announced the upcoming second-stage study aimed at clinical application of the technology.

Hong Kong Tourism Board - Media Interview

"We're thrilled to host APHRS in Hong Kong again after 10 years. It's one of the largest congresses after the pandemic, thanks to Hong Kong's high professional standing in the medical field and the professional event industry staff. All these contributed to the successful hosting of a large-scale international event."

- By Professor Wataru Shimizu, President of APHRS

"Hong Kong has both the hardware and software for hosting international medical conventions. The city has a professional medical community and dedicated convention organisers. In terms of fundamentals, Hong Kong is located in the heart of Asia that is easily accessible from everywhere around the world, with first-class convention centres and numerous hotel options, not to mention the comprehensive support from the Hong Kong Tourism Board."

- By Professor Chu-Pak Lau, Past President of Hong Kong College of Cardiology and Honorary President of APHRS

"As a Hong Kong Convention Ambassador, I together with the Hong Kong College of Cardiology will continue to work with the Hong Kong Tourism Board to bring more international cardiology conferences. It's very important to improve the exchange between cardiologists all over the world and to enhance the standard of healthcare in the community."

- By Dr Andy Chan, President of Hong Kong College of Cardiology 2021-2023





Sponsors

The Congress would not be possible without the support from our industry partners. This year in Hong Kong we were fortunate enough to have 5 main sponsors and 25 exhibitors, as well as support from the Hong Kong Tourism Board and Cathay Pacific. On behalf of APHRS and the Organizing Committee, we would like to express our sincere gratitude to our sponsors and supporters of this Congress.

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Sponsors



















































See You Next Year!

The flag handover ceremony took place at the Closing Ceremony to the organizer of the next year's APHRS Scientific Session. Wishing the next meeting a great success!



GETTING TO KNOW APHRS LEADER

Eun-Sun Jin, MD, PhD, Professor

Director of Cardiac Electrophysiology Lab, Cardiovascular Center, Kyung Hee University Hospital at Gangdong

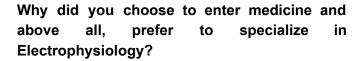
Department of Cardiology, Kyung Hee University College of Medicine

Manager of Quality Improvement & Patient Safety, Kyung-Hee University Hospital at Gangdong

Head of Clinical Practice Education Center, Kyung-Hee University Medical College

Education director, Korean Heart Rhythm Society

Chief of Women-in-EP subcommittee, APHRS



The reason why I studied medicine is because I thought understanding the human body and managing health was the most basic and important part of a life. Money, fame, nothing is more important than health. And I like that hospitals are places where everyone is treated equally regardless of their wealth or power. The reason I majored in cardiology was that I could save people at critical moments with my knowledge and quick and accurate judgment, and I studied arrhythmia because I believed that understanding arrhythmia would complete my understanding of the heart.



What do you regard as the most significant development in Electrophysiology in the recent past?

I think it is the development of a new ablation technology and the development of a leadless pacemaker. The development of the 3D mapping system has made a big mark, and in addition to this, it is expected that more accurate and effective ablation can be achieved with the development of a new energy source that compensates for the shortcomings of ablation using RF. Leadless pacemakers are of great help to patients who could not insert a pacemaker with the conventional method.

Can you talk about an accomplishment that you are particularly proud of?

I am most proud of becoming a cardiologist with insights into the heart and the ability to treat any heart disease. And I am grateful that I was able to build a happy family with three wonderful and lovely children while building this career.

If you could have an alternative career, what would it be and why?

I want to become a program developer and entrepreneur who can create programs and devices that benefit the world. Because it is these developers who have changed the world the most in recent decades. Or if I had a large piece of land, I would like to run an educational institution.

What are your hobbies and interests outside of medicine?

Time outside of clinical practice is used for student education and quality improvement activities at the hospital. I don't have much free time, however, if I want to relax, I watch K-dramas and webtoons.

What is your best life advice, motto or favorite quote?

'Let wisdom be in your head, love in your heart, and work in your hands.'

What advice would you give to your younger self?

Just be confident. Follow the light inside yourself.

How do you keep a healthy work/life balance?

I am taking vegetables first and only taking small amounts of carbohydrate everyday.



What are your thoughts about some of the emerging technologies, and the way they will shape the future care of arrhythmia patients?

When a new treatment technology comes out, most doctors want to use it quickly. However, I would like to say first that it is absolutely necessary to fully understand the technology and ensure safety first. With the development of new ablation technology, arrhythmia can be treated more efficiently and less time and energy will be required for our procedure. However, since ablation can destroy normal cardiac function and structure, doctors' efforts and technology development must continue to select essential parts and ablate the minimum range. As arrhythmia diagnosis tools are evolving day by day, I believe that it will be possible to monitor the occurrence of arrhythmia in almost real-time which results in the increment of the diagnosis rate of arrhythmias. Balanced treatment should be well established so that patients who absolutely need it can receive safe medical and interventional treatment.

The Auckland Approach to Index Atrial Fibrillation Ablation **Procedures**

Khang-Li Looi ¹, Hassan Marwan M Fahmi ¹, Marlynn Ali ¹, Andrew Weston ¹, Andrew Gavin ², Matthew O'Connor 1, Jamie Voss 3, Nigel Lever 1, Andrew Martin

Atrial fibrillation (AF) is the most common arrhythmia encountered in clinical practice. Numerous observational studies and randomised controlled trials have demonstrated that AF ablation is superior to drug treatment in terms of maintaining sinus rhythm, improving symptoms, and enhancing functional capacity and quality of life (1-3). The two most commonly used modalities for catheter ablation of AF are radiofrequency and cryoballoon ablation. Recently three randomised controlled trials (Cryo-First, Early-AF, and STOP-AF First) compared cryoballoon ablation to anti-arrhythmic drugs as a first-line treatment for AF(4-6). The results showed that the percentage of patients achieving freedom from atrial arrhythmias ranged from 57.1% to 82.2% in the cryoballoon ablation group, compared to 32.2% to 67.6% in the antiarrhythmic drug group. Additionally, the risk of treatment-related adverse events was found to be comparable between the two groups, with ablation associated with a slightly lower risk of any adverse events. We present the Auckland approach to index AF ablation using cryoballoon strategy.

The New Zealand public health system is managed by Health New Zealand - Te Whatu Ora. Te Whatu Ora is responsible for the day-to-day operation of the health system throughout New Zealand, with services delivered at local, district, regional, and national levels. The Northern District comprises the four northernmost districts (Figure 1): Te Tai Tokerau (Northland), Te Tokai Tumai Auckland, Waitematā, and Counties Manukau. The Northern District serves 37% of the total New Zealand population with an estimated 1.9 million people residing in this region (7). Patients who reside in the Northern District underwent AF ablation at Te Tokai Tumai Auckland City Hospital that has electrophysiology (EP) capable catheterisation lab.

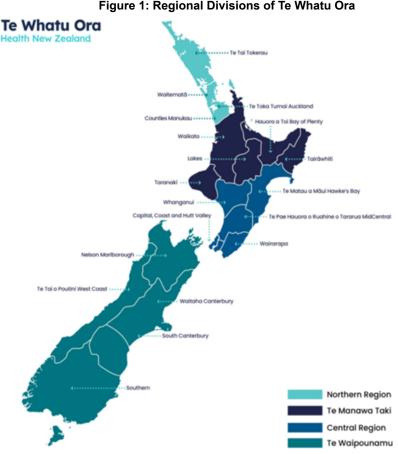


Figure 1: Regional Divisions of Te Whatu Ora

Source: https://careers.tewhatuora.govt.nz/locations/

Cardiovascular Division, North Shore Hospital, Te Whatu Ora Waitemata, Auckland, New Zealand

Table 1 showed the Auckland Regional Arrhythmia Service clinical criteria for AF ablation.

Eligibility for PVI for treatment of AF

- Symptomatic AF, whether paroxysmal or persistent refractory to at least one class I/III antiarrhythmic drug (or contraindicated)
- Optimally managed AF risk factors including a BMI of < 35 kg/m2, left atrial area of <40cm2, and volume of <70mL/m2
- Additional priority would be given for patients with rate-related cardiomyopathy due to AF, and if prior rhythm control has resulted in the recovery of normal or near-normal left ventricular function

Patients not eligible for PVI

- Patients with long-standing persistent AF (>1 year) in whom sustained sinus rhythm cannot be achieved
- Patients with a single episode of AF
- · Patients with asymptomatic AF
- Patients > 75 years
- Patients with severe CKD (GFR < 30 mL/min/1.73m2)

AF, atrial fibrillation; BMI, body mass index; CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; PVI, pulmonary vein isolation

Starting from April 28th, 2023, we have widened the eligibility criteria and will undertake AF ablation to patients aged ≤35 years with paroxysmal AF, minimal or no AF risk factors, and mildly enlarged atria, before initiating anti-arrhythmic medical therapy.

AF ablation is performed on patients on uninterrupted warfarin. For those on direct oral anticoagulants (DOAC), patients on dabigatran will proceed with ablation without interrupting their DOAC, while those on rivaroxaban will withhold their morning dose before the procedure and then restart it immediately after the procedure.

From June 2020 to December 2022, a total of 1,430 cases of EP study and ablations were performed in Auckland. Among these cases, 492 were AF ablation procedures, including 388 indexed AF ablations. Cryoballoon was used in 90.5% (351) of the indexed AF ablation cases (**Figure 2**).

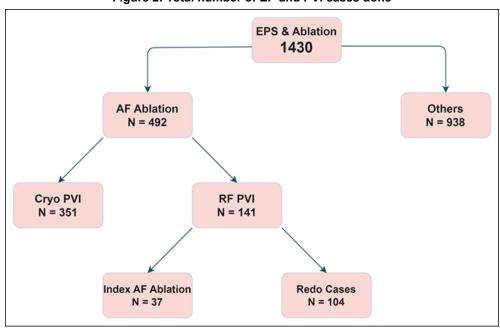


Figure 2: Total number of EP and PVI cases done

AF, atrial fibrillation; EPS, electrophysiology studies; cryoPVI, cryoballoon pulmonary vein isolation; RF PVI, radiofrequency pulmonary vein isolation

Baseline demographics of the 351 patients were shown in **Table 2**. The mean age of the patients was 59.7±10 years. The majority of patients were male and of European ethnicity. Additionally, the majority of patients had paroxysmal atrial fibrillation (PAF). The most common underlying heart diseases in this group were ischaemic heart disease and dilated cardiomyopathy. Additionally, up to 10% of the patients have AF rate-related cardiomyopathy. The majority of the patients were on DOAC, with the most common one being dabigatran. Half of the patients were on a beta-blocker. Up to 72% of the patients were on class I/III anti-arrhythmic drugs, and among those, 30% were on Amiodarone. Up to 74% of the patients have good left ventricular (LV) function. The most common symptomatic indication for AF ablation was palpitation, followed by heart failure symptoms and fatigue (**Figure 3**).

Table 2: Baseline characteristics of patients who underwent cryoballoon PVI

| Table 2: Baseline characteristics of patients who underwent cryoballoon PVI | | | | | | | |
|---|---|--|--|--|--|--|--|
| | N=351 | | | | | | |
| Mean age (years) (IQR) | 59.7±10 (54-67) | | | | | | |
| Male (%) | 258 (73.5%) | | | | | | |
| Ethnicity (%) NZ European/Other European Maori Pacific Island Asian | 272 (77.5) 36 (10.3) 19 (5.4) 24 (6.8) | | | | | | |
| Cohort by District of Domicile (%) Te Tai Tokerau Te Tokai Tumai Auckland Waitemată Counties Manukau Others | 33 (9.4) 87 (24.8) 105 (29.9) 119 (33.9) 7 (2) | | | | | | |
| Mean BMI (m/kg2) (IQR) | 29.7±9 (25.8-32.7) | | | | | | |
| Mean creatinine (umol/L) (IQR) | 89.4±22.7 (75-99.8) | | | | | | |
| Paroxysmal AF (%) | 266 (75.8) | | | | | | |
| EHRA AF Classification (%) 1 2 3 4 | 47 (13.4) 226 (64.4) 18 (5.1) 60 (17.1) | | | | | | |
| Comorbidities (%) Hypertension Diabetes Mellitus Stroke/TIA COPD OSA Excess alcohol/abnormal LFT Prior major bleeding | 121 (34.5) 25 (7.1) 22 (6.3) 16 (4.6) 15 (4.2) 9 (2.6)/4 (1.1) 1 (0.3) | | | | | | |
| Underlying Heart Disease (%) Ischaemic heart disease Dilated cardiomyopathy Valvular heart disease Hypertensive heart disease Hypertrophic cardiomyopathy Congenital Heart Disease Other – rate-related CM | 33 (9.4) 28 (8.0) 8 (2.3) 4 (1.1) 5 (1.4) 1 (0.3) 36 (10.3) | | | | | | |
| Previous Interventions (%) PCI/CABG Valve surgery Previous CTI flutter ablation CIED PPMICD/CRTILR | 28 (8) 1 (0.3) 23 (6.6) 22 (6.3) 16 (4.6) 4 (1.1) 2 (0.6) | | | | | | |
| CHA ₂ DS ₂ -VASc Score (%) | 190 (54.1) 93 (26.5) 68 (19.4) | | | | | | |
| HAS-BLED Score | 299 (85.2) 48 (13.7) 4 (1.1) | | | | | | |
| Baseline Medications (%) DOAC -Dabigatran -Rivaroxaban Beta-blocker Calcium channel blocker Class I/III AAD -Amiodarone -Sotalol -Flecainide | 341(97.2) -219 (64.2) -121 (35.5) 180 (51.3) 48 (13.7) 254 (72.4) -105 (29.9) -57 (16.2) -92 (26.2) | | | | | | |
| LV Function (%) Good (LVEF >55%) Mild impairment (LVEF 45-55%) Moderate impairment (LVEF 35-45%) Severe impairment (LVEF 25-35%) Very severe impairment (LVEF <25%) | 258 (73.5) 48 (13.7) 24 (6.8) 17 (4.8) 4 (1.2) | | | | | | |
| Mean LA area (cm2) (median; IQR) | 24.8 (25; 21-28) | | | | | | |
| Mean Indexed LA volume (mL/m2) (median; IQR) | 41.2 (38.7; 32-49) | | | | | | |

AF, atrial fibrillation, AAD, anti-arrhythmic drug; CABG, coronary artery bypass grafting; CIED, cardiac implantable electronic devices; CM, cardiomyopathy; COPD, chronic obstructive airway disease; CRT; cardiac resynchronisation therapy; CTI, cavotricuspid isthmus; DOAC, direct oral anticoagulant; EHRA, European Heart Rhythm Association, ICD, implantable cardioverter defibrillator; ILR, implantable loop recorder; IQR, interquartile range; LA, left atrium; LFT, liver function test; LVEF, left ventricular ejection fraction; PCI, percutaneous coronary intervention; PPM, permanent pacemaker; PVI, pulmonary vein isolation; TIA, transient ischaemic attack

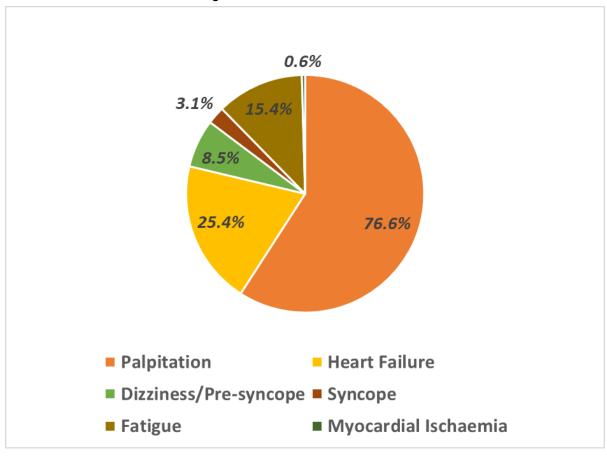


Figure 3: Indications for AF Ablation

AF, atrial fibrillation

All cryoballoon ablations were performed under general anaesthesia. The median waiting time for the ablation procedure was 153 days (IQR 58-242). The median duration of the procedure was 95 minutes (IQR 80-120), with a median fluoroscopy time of 19 minutes (IQR 18-28). On average, 44 mL of contrast was used. Out of the total number of patients, 314 (89.5%) underwent pulmonary vein isolation (PVI) using the 28mm Arctic Front cryoballoon. In up to 62% of the cases, ultrasound was utilized for vascular access. 24% of the patients underwent CTI flutter and AF ablation simultaneously. 90% of the patients were in sinus rhythm (SR) at the start of the ablation. Approximately 12% of the patients required ≥1 cardioversion during the procedure. The median duration of total energy application was 27 minutes (IQR 20-36). Complete pulmonary vein (PV) isolation was confirmed in 98.6% of the patients.

The median length of hospital stay was 1 day. Up to 27% of the patients were discharged on the same day after the ablation. Patients who live in the greater Auckland Metro area were more likely to be discharged on the same day compared to those residing outside of the Auckland Metro area (28% vs. 15%, p=0.02). Within the Auckland Metro area itself, there were no significant differences between districts. Patients whose procedures were shorter in duration (median duration 90 minutes, IQR 75-108.3, vs. 100 minutes, IQR 80-130) were more likely to have a same-day discharge (p<0.01). Those patients with procedures completed prior to 1 pm were also more likely to be discharged on the same day (79.8% vs. 28.4%, respectively, p<0.01). After adjusting for baseline differences, finishing ablation prior to 1 pm (OR 18.8, 95% CI 8.6 to 41.3, p<0.01) was the only strong predictor of same-day discharge.

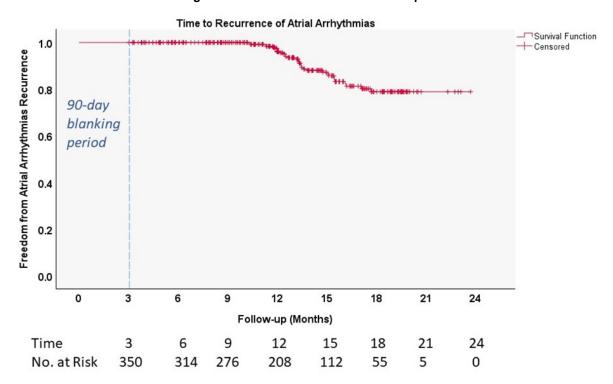
There were 16 (4.6%) in-hospital complications documented, which included six cases of phrenic nerve palsy persisting at the end of the procedure, one case of significant cardiac tamponade due to a left atrial appendage tear requiring cardiac surgery, and one case of stroke. Additionally, there were two cases of access site hematoma that were managed conservatively. There was no difference in the in-hospital complications between those who were discharged on the same day vs. those discharged on subsequent days (p=0.5).

During the 90-day follow-up, complications occurred in 17 (4.8%) patients (**Table 3**). The median follow-up time was 386 days (IQR 302–486). During the follow-up period, one death unrelated to the procedure was reported, which was attributed to metastatic cancer. 33 patients (9.4%) experienced documented recurrence of atrial arrhythmias (**Figure 4**). Among these 33 patients, 11 (3.1%) underwent redo AF ablation.

Table 3: Complications during 90-day Follow-Up

| Complications | N | |
|-----------------------------------|----|--|
| Total | 17 | |
| Amiodarone-induced thyrotoxicosis | 2 | |
| Chest pain | 3 | |
| Gastroparesis | 1 | |
| Fluid overload | 1 | |
| Haemoptysis/Pulmonary haemorrhage | 1 | |
| Migrainous symptoms | 3 | |
| Phrenic nerve paralysis | 2 | |
| Pulmonary embolism | 1 | |
| Sinus node dysfunction | 1 | |
| Transient ischaemic attack | 1 | |
| Vascular access site haematoma | 1 | |

Figure 4: Treatment Success at Follow-Up



When comparing the baseline characteristics of the 33 patients with documented recurrent atrial arrhythmias to those without recurrences, the former group were slightly older in age (mean age 61.1±10 vs. 59.6±10 years, p=0.05) and had a higher BMI (mean 33 vs. 29.3, p=0.03) Additionally, there was a trend for a higher proportion of females (p=0.08). There was no difference in terms of underlying heart disease, baseline medications, left ventricular function, or left atrial size between the groups. Among those with recurrences of atrial arrhythmias, the median waiting time to ablation was significantly longer, with a median of 252 days (IQR 202-308) vs. 135 days (IQR 57-235) (p<0.01). There were no differences noted in terms of other procedural factors.

In summary, the use of cryoballoon as the index approach for AF ablation in our patients with symptomatic AF has been shown to reduce AF burden. Our complication and recurrence rates are comparable to those reported in the literature. We continue to use this modality for the majority of patients in our current structure. Multiple barriers remain for patients to access quality health care. We continue to work on prompt and equitable access to AF ablation for patients to avoid delays to improve clinical outcomes for these patients.

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WEBINAR SUMMARY: EP JOURNAL CLUB 2023 (Part 2)

Johnson & Johnson Institute





APAC EP Journal Club

A series of educational sessions

Faculty-Part 1



Prof. Raymond SyUniversity of Sydney

Faculty - Part 2



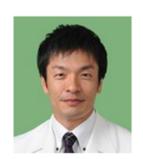
Prof. Sirin Apiyasawat Ramathibodi Hospital

Faculty - Part 3



Prof. Minglong Chen
The First Affiliated
Hospital of Nanjing
Medical University

Faculty - Part 4



Dr. Akira Mizukami Kameda Medical Center

Australia

Thailand

China

Japan

May 11

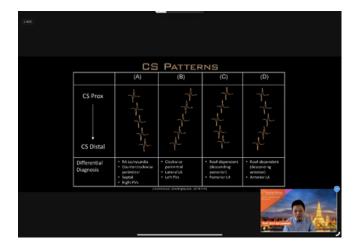
Part 1 Substrate beyond PVI Jul 27

Part 2 High Density Mapping in AT/Flutter Sep 14

Part 3 His-Purkinje related VT Nov 9

Part 4 AVNRT

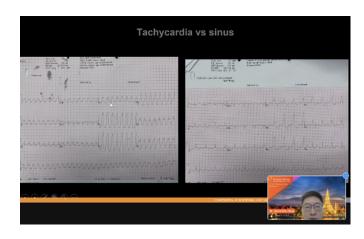
On July 27th, 2023, the educational webinar series, "EP Journal Club (EPJC) 2023," successfully initiated its second the chapter. expertly hosted bγ distinguished electrophysiology faculty led by Professor Sirin Apiyasawat. Currently serving as a Clinical Electrophysiologist and the Assistant Dean for International Relations and Research Collaborations Instructor at the Division of Cardiology, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand. Professor Sirin brings with her over two decades of invaluable experience in the realm of complex cardiac arrhythmia treatment through Radiofrequency Ablation. This recent webinar reflects our continued commitment to sharing expertise and fostering discussions in the world of electrophysiology, in which Professor Sirin's proficiency played an instrumental role.



EPJC is a professional education event initiated by Biosense Webster, Johnson & Johnson, with Electrophysiological experts from China, Australia, Japan, and Thailand. The experts from different

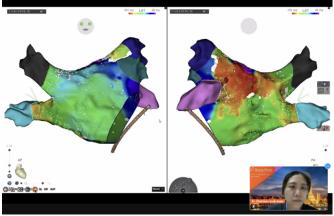
countries share electrophysiology literature on a rotating basis, categorized by different topics, they are responsible for one topic each and lead the audience through the literature progress and share their hands-on experience. This course is aimed at Electrophysiologists with 1-5 years of experience, this event targets an audience in the Asia-Pacific region and has been endorsed by APHRS this year.

The webinar was themed "High Density Mapping in AT/Flutter". Professor Sirin, in collaboration with esteemed EP fellow from Thailand and Malaysia - Dr. Chutimon Junkrasien from Ramathibodi Hospital / Queen Sirikit Heart Center of The Northeast, Thailand, and Dr. Quek Chu Zhen from Sultanah Aminah Hospital, Malaysia, imparted their knowledge and case experiences. They discussed dealing with the intricacies of complex atrial tachycardia, the limited value of ECGs, procedural endpoint, and the challenge of mapping non-mappable rhythms. This insightful session was rich in the sharing of rationales, evidence, techniques, and limitations, leading to a highly engaging Q&A session with our audience. The presentation was uniquely designed with a selection of recently published journal articles.



In complement to Professor Sirin Apiyasawat and EP fellows' insightful lectures and shared experiences, the evening was further enhanced by the contributions of the moderating panel, composed of distinguished professionals including Prof. Minglong Chen from China, Dr. Akira Mizukami from Japan, and Prof. Raymond Sy from Australia. Each contributed their unique insights during the interactive discussions. The webinar featured an enriching mix of activities, from lectures, interactive polling, case reviews to Q&A sessions, all contributing to the attendees' deeper comprehension of High-Density Mapping in AT/Flutter. With an audience of over 65 participants, it was clear that the virtual webinar format continues to be an effective platform for bringing together seasoned experts and electrophysiologists, fostering a space for mutual learning and knowledge exchange. We eagerly anticipate future sessions of the APAC EPJC, with the next session scheduled for September 14th, 2023. Stay tuned for registration details in the forthcoming weeks.





SAVE THE DATE

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