

The 49th Annual Convention & Scientific Session of the Taiwan Society of Cardiology, 2019
 May 18-19, 2019
 Taipei International Convention Center, Taipei, Taiwan

May 18, 2019 (Saturday)

	Featured Symposium	Joint Session	Oral Presentation	Satellite Symposium	TaipeiLive	Special Session			
Veune	102	103	105	201A	201BC	201DE	201F	South Foyer, 3F	Banquet Hall, 3F
08:30-10:00	Cardio-Oncology (P.1)	YIA (P.3)	Oral Presentation (P.5)	Oral Presentation (P.7)	PAH (P.10)	Congenital Heart Disease (Pediatrics) (P.12)	Oral Presentation (P.14)	Oral Presentation (P.18)	TaipeiLive I (P.20)
10:00-10:30	Break, and Visit the Exhibition Area								
10:30-12:00	HF Competition (P.2)	IYI Presentation (P.4)	*APSC-TSOC: Diabetes & Hyperlipidemia in Asia (P.6)	Prevention (P.8)	PAH (P.11)	Congenital Heart Disease (Pediatrics) (P.13)	*TSH-TSOC: HT (P.15)	Critical Care Medicine (P.19)	TaipeiLive II (P.20)
12:00-12:15	Break, and Visit the Exhibition Area								
12:15-13:45		Luncheon Symposium [AstraZeneca] (P.57)	Luncheon Symposium [Amgen] (P.58)	Luncheon Symposium [Daiichi Sankyo] (P.59)	Luncheon Symposium [Boehringer-Ingelheim] (P.60)	Luncheon Symposium [Pfizer] (P.61)	Luncheon Symposium [Medtronic] (P.62)	Luncheon Symposium [Biosensors] (P.63)	
13:45-14:00	Break, and Visit the Exhibition Area								
14:00-15:30	HF (P.22)	*JCS-TSOC: Precision Medicine (P.24)	VAD (P.26)	Prevention (P.9)	EPS (P.29)	CVM (P.31)	*TSH-TSOC: HT (P.16)	Cardiac Imaging (P.33)	TaipeiLive III (P.21)
15:30-16:00	Break, and Visit the Exhibition Area								
16:00-17:30	*JHFS-TSOC: Imaging in HF (P.23)	Basic Science (P.25)	AS (P.27)	*ESC-TSOC: Hypertension (P.28)	EPS (P.30)	CVM (P.32)	*TSH-TSOC: HT (P.17)	Cardiac Imaging (P.34)	TaipeiLive IV (P.21)
17:45-19:15					Evening Symposium [Bayer] (P.64)	Evening Symposium [Novartis] (P.65)			
19:30-21:00	TSOC Presidential Dinner for Board Members and Invited Speakers/Chairs								

The 49th Annual Convention & Scientific Session of the Taiwan Society of Cardiology, 2019
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May 19, 2019 (Sunday)

Featured Symposium	Joint Session	Oral Presentation	Satellite Symposium	TaipeiLive	Special Session
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Venue	102	103	201A	201BC	201DE	201F
08:20-10:00	*ACC in Taiwan: Women Heart Health (P.35)	Basic Science (P.36)	Stem Cell (P.37)	Presidential Address(5 mins) TSOC YIA Presentation (15 mins) Nong Ting(20 mins) Plenary Lectures Jeroen Bax (30 mins) Panos Deloukas (30 mins) (P.38)	*TSCI-TSOC: PCI (P.39)	Cardiovascular Registry in Taiwan: The Past, Present, Future (P.40)
10:00-10:30	Break, and Visit the Exhibition Area					
10:30-11:10				General Assembly (P.38)		
11:10-11:30	Break, and Visit the Exhibition Area					
11:30-13:00		Luncheon Symposium [Sanofi] (P.66)	Luncheon Symposium [Tanabe] (P.67)	Luncheon Symposium [Boehringer-Ingelheim] (P.68)	Luncheon Symposium [Menarini] (P.69)	Luncheon Symposium [MSD] (P.70)
13:00-13:15	Break, and Visit the Exhibition Area					
13:15-14:45	Joint Committee of Critical Care Medicine Certified Course { REGISTRATION ONLY } (P.41)	醫療品質專題 (P.42)	Structural Heart Disease (Heart Team Debate) (P.44)	Cross-Strait Symposium (P.46)	*KSC-TSOC: Acute Coronary Syndrome (P.48)	TSOC Cardiovascular Academic E-sports { REGISTRATION ONLY }
14:45-15:00	Break, and Visit the Exhibition Area					
15:00-16:30	Joint Committee of Critical Care Medicine Certified Course { REGISTRATION ONLY } (P.41)	基層醫療健保 (P.43)	Structural Heart Disease (Heart Team Debate) (P.45)	Cross-Strait Symposium (P.47)		TSOC Cardiovascular Academic E-sports { REGISTRATION ONLY }

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台北國際會議中心(TICC) 1F Room 102

THE 2018 UPDATES OF CARDIO-ONCOLOGY

- 08:30 Opening Remarks..... 林維祥
(Wei-Shiang Lin)
Chair: 林維祥(Wei-Shiang Lin)
- 08:35 From A Cardiologist's Perspective..... 鄭凱鴻
(Kai-Hung Cheng)
Chair: 黃嵩豪(Sung-Hao Huang)
- 08:55 Heart Failure & Cancer - Which Came First ?..... 葉士芃
(Shih-Peng Yeh)
Chair: 黃嵩豪(Sung-Hao Huang)
- 09:15 How to Initiate Cardio-Oncology Program 張瑋婷
(Wei-Ting Chang)
Chair: 蔡佳醜(Chia-Ti Tsai)
- 09:35 Discussion
- 09:55 Closing Remarks 蔡佳醜
(Chia-Ti Tsai)

台北國際會議中心(TICC) 1F Room 102

**HEART OF QUALITY: HF PROPOSAL PRESENTATION
COMPETITION**

心臟衰竭醫療品質提案競賽

- 10:30 Introduction 王俊傑
(Chun-Chieh Wang)
- 10:35 Talent Talks on the HF Frontier
6 Best Proposal Sharing (Each Presentation 7mins and Q&A 3mins)
- Referees: 江志桓 (Chi-Woon Kong)、程文俊 (Wen-Jin Cherng)、
蔡建松 (Chien-Sung Tsai)、陳適安 (Shih-Ann Chen)、
張恒嘉 (Heng-Chia Chang)
- 11:40 Award Ceremony and Comments from Referee Committee
- 11:55 Closing Remarks and Group Photo 吳彥雯
(Yen-Wen Wu)

台北國際會議中心(TICC) 1F Room 103
**TSOC YOUNG INVESTIGATORS AWARD
FINALISTS COMPETITION**

Referees: 葉宏一(Hung-I Yeh)、翁國昌(Kwo-Chang Ueng)
蔡建松(Chien-Sung Tsai)、陳志成(Zhih-Cherng Chen)、
劉如濟(Ju-Chi Liu)

- 08:35 Inhaled Iloprost, Exercise Hemodynamics, and Ventricular Performance in Heart Failure with Preserved Ejection Fraction - the ILO-HOPE Trial 鄭人方
(Jen-Fang Cheng)
- 08:50 Automated Recognition of Regional Wall Motion Abnormalities by Deep Neural Network Interpretation of Echocardiography 黃睦翔
(Mu-Shiang Huang)
- 09:05 Efficacy of β -blocker Therapy on Long-term Outcomes after Surgical Repair of Acute Type A Aortic Dissection: A Population-Based Study..... 陳紹緯
(Shao-Wei Chen)
- 09:20 Circulating TNFSF14 Predicts Clinical Outcome in Patients with Stable Coronary Artery Disease 徐千彝
(Chien-Yi Hsu)
- 09:35 Cardiovascular Outcomes of Vildagliptin in Patients with Type 2 Diabetes Mellitus after Acute Coronary Syndrome or Acute Ischemic Stroke..... 陳東藝
(Dong-Yi Chen)

台北國際會議中心(TICC) 1F Room 103

**INTERNATIONAL YOUNG INVESTIGATORS
PRESENTATION**

Chairs: 林幸榮 (Shing-Jong Lin)、林俊立(Jiunn-Lee Lin)

- 10:30 **(Japan):** Myocardial Technetium-99m Sestamibi Washout Rate is Useful to Predict Left Ventricular Reverse Remodeling in Patients with Dilated Cardiomyopathy Misato Chimura
- 10:55 **(Korea):** Clinical Relevance of Functional Angiography for Non-Culprit Stenosis in Patients with Acute Myocardial Infarction Ki Hong Choi
- 11:20 **(Malaysia):** Propolis from Stingless Bees (Heterotrigona Itama) Exerts Cardiovascular Protection in Streptozotocin-Induced Diabetic Rats: Beyond Antioxidant and Antihyperglycemic 楊汶勝
(Boon Seng Yeoh)
- 11:45 **(Taiwan):** Association of Obesity and Nutritional Status with Outcomes in A General Asian Community 簡世杰
(Shih-Chieh Chien)

台北國際會議中心(TICC) 1F Room 105

ORAL PRESENTATION
【CORONARY ARTERY DISEASE & ELECTROPHYSIOLOGY & CARDIAC IMAGING】

Chairs: 洪惠風(Huei-Fong Hung)、顏學偉(Hsueh-Wei Yen)、游治節(Chih-Chieh Yu)

- 08:30 Impact of Combined Distal Protection, Glycoprotein IIb/IIIa Inhibitor and Thrombectomy in Primary Percutaneous Coronary Intervention on Short-term Angiographic and Echocardiographic Results and Long-term Clinical Outcomes 宋沛勳
(Pei-Hsun Sung)
- 08:45 The Biphasic Effects of Tumor Necrosis Factor Superfamily 14 on Vasculogenic Function of Endothelial Progenitor Cells 徐千彝
(Chien-Yi Hsu)
- 09:00 Predicting Survival to Discharge in the Acute Myocardial Infarction Patients with Out-of-Hospital Cardiac Arrest after Return of Spontaneous Circulation..... 劉芄宏
(Yuan-Hung Liu)
- 09:15 The Establishment of Ambulance 12-lead Electrocardiography System: 8-year Experience in Taiwan 洪正中
(Cheng-Chung Hung)
- 09:30 The Role of AV Nodal Angiography in Ablation of AV Nodal Reentrant Tachycardia 柯文欽
(Wen-Chin Ko)
- 09:45 Interaction of MRI-derived Kinetic Energy between RV Myocardium and Flow in Patients with Repaired Tetralogy of Fallot 翁根本
(Ken-Pen Weng)

台北國際會議中心(TICC) 1F Room 105

***APSC-TSOC JOINT SESSION :
DIABETES AND HYPERLIPIDEMIA IN ASIA**

10:30 Opening Remarks.....黃瑞仁(Juey-Jen Hwang) & Hyo-Soo Kim

Chair: Hyo-Soo Kim

10:35 Cholesterol Management Guidelines and Beyond:
Insights From Recent Japanese Clinical TrialsHiroyuki Daida

Chair: 葉森洲 (San-Jou Yeh)

11:15 New Anti-Diabetic Agents: A Second Revolution in
Cardiovascular Protection 江晨恩
(Chern-En Chiang)

11:55 Closing Remarks 江正文(Cheng-Wen Chiang) & Hyo-Soo Kim

* Asian Pacific Society of Cardiology

台北國際會議中心(TICC) 2F Room 201A

ORAL PRESENTATION
【BASIC SCIENCE】

Chairs: 柯毓麟(Yu-Lin Ko)、張盛雄(Sheng-Hsiung Chang)、
黃金洲(Chin-Chou Huang)

- 08:30 iPSCsderived Exosomes can Reduce Pulmonary Vascular Remodeling
in Hypoxia-induced Pulmonary Arterial Hypertension..... 沈旻淇
(Min-Ci Shen)
- 08:45 Pulmonary Arterial Hypertension can be Attenuated by Caffeic Acid
Phenethyl Ester through Inhibiting Vascular Remodeling by Regulation
of AKT/ERK-dependent PDGF/HIF-1 α Signaling Pathway in vivo
and in vitro 齊佩伶
(Pei-Ling Chi)
- 09:00 The hsa-miR-134-5p Targeting the Aging Processes of Human EPCs
Involves TGF- β 1..... 蘇正煌
(Cheng-Huang Su)
- 09:15 The Prevalence and Role of SCN10A Variants in Han Chinese Patients
with Brugada Syndrome: the SADS-TW BrS Registry 莊志明
(Jimmy Jyh-Ming Juang)
- 09:30 Effect of Liraglutide on Neointima Formation in Diabetic Mice: Focus
on Endothelial-to-mesenchymal Transition 蔡子賢
(Tzu-Hsien Tsai)
- 09:45 Direct Implantations of Erythropoietin and Autologous EPCs Critical Limb
Ischemia (CLI) Area not only Restored the blood flow in CLI Area but also
Rescued the Remote AMI-induced LV Dysfunction 李芳艷
(Fan-Yen Lee)

台北國際會議中心(TICC) 2F Room 201A
**SYMPOSIUM ON MANAGEMENT OF LIPID,
GLUCOSE AND COAGULATION**

- 10:30 Opening Remarks..... 吳造中
(Chau-Chung Wu)
- Chair: 吳造中(Chau-Chung Wu)**
- 10:35 Combination Therapy in Lipid Management: Who, When and How 簡世杰
(Shih-Chieh Chien)
- 11:00 Healthy Fat and Oil: Where is the Evidence? 林維文
(Wei-Wen Lin)
- Chair: 蕭相江(Hsiang-Chiang Hsiao)**
- 11:15 Comorbidities-oriented Anti-diabetic Therapy: State of The Art 邱俊仁
(Chiung-Zuan Chiu)
- 11:40 Anticoagulation in Atherosclerosis: An Update 陳郁志
(Michael Yu-Chih Chen)
- 11:55 Closing Remarks 蘇大成
(Ta-Chen Su)

台北國際會議中心(TICC) 2F Room 201A

**SYMPOSIUM ON MICROBIOTA, AIR POLLUTION, CHRONIC
KIDNEY DISEASE AND CARDIOVASCULAR DISEASE (CVD)**

- 14:00 Opening Remarks..... 林宗憲
(Tsung-Hsien Lin)
Chair: 林宗憲(Tsung-Hsien Lin)
- 14:05 Microbiota and CVD: What Should We Know?..... 劉嚴文
(Yen-Wen Liu)
Chair: 傅懋洋(Morgan Mao-Young Fu)
- 14:25 Air Pollution and CVD: How Can We Do in Taiwan? 蘇大成
(Ta-Chen Su)
- 14:45 Chronic Kidney Disease & CVD: What Should We Do in Taiwan? 呂信邦
(Hsin-Bang Leu)
Chair: 柯毓賢(Yu-Shien Ko)
- 15:05 Panel Discussion
- 15:25 Closing Remarks 柯毓賢
(Yu-Shien Ko)

台北國際會議中心(TICC) 2F Room 201BC

**STATE-OF-ART CLINICAL STRATEGIES IN PULMONARY ARTERY
HYPERTENSION**

Chairs: 黃偉春(Wei-Chun Huang)、林維文(Wei-Wen Lin)、
吳文憲(Wen-Shiann Wu)

- 08:30 Opening Remark 黃偉春
(Wei-Chun Huang)
- 08:32 Current Status of PAH Treatment in Japan Takeshi Ogo
- 09:00 Diagnosis, Treatment and Current Status in Taiwan: iPAH..... 劉維新
(Wei-Shin Liu)
- 09:15 Diagnosis, Treatment and Current Status in Taiwan: CHD-PAH 邱昱偉
(Yu-Wei Chiu)
- 09:30 Diagnosis, Treatment and Current Status in Taiwan: CTD-PAH..... 宋思賢
(Shih-Hsien Sung)
- 09:45 Introduction of PAH Registry 鄭錦昌
(Chin-Chang Cheng)

台北國際會議中心(TICC) 2F Room 201BC

**COMPREHENSIVE REVIEW OF CHRONIC THROMBOEMBOLIC
PULMONARY HYPERTENSION**

**Chairs: 吳懿哲(Yih-Jer Wu)、鄭書孟(Shu-Meng Cheng)、
吳銘庭(Ming-Ting Wu)**

- 10:30 Prevalence, Pathogenesis, and Genetic Background 許志新
(Chih-Hsin Hsu)
- 10:45 Tip and Trick in CTEPH Image: V/Q Scan 柯紀綸
(Chi-Lun Ko)
- 11:00 Tip and Trick in CTEPH Image: Chest CT 黃昱森
(Yu-Sen Huang)
- 11:15 Treatment of CTEPH and Current Status in Taiwan: Pulmonary
Endarterectomy 黃書健
(Shu-Chien Huang)
- 11:30 Treatment of CTEPH and Current Status in Taiwan: Medicine..... 朱俊源
(Chun-Yuan Chu)
- 11:45 Treatment of CTEPH and Current Status in Taiwan: Balloon Pulmonary
Angioplasty 林彥宏
(Yen-Hung Lin)
- 12:00 Closing Remarks 鄭書孟
(Shu-Meng Cheng)

台北國際會議中心(TICC) 2F Room 201DE
SYMPOSIUM ON CONGENITAL HEART DISEASE

08:30 Opening Remarks..... 吳俊明
(Jing-Ming Wu)

Chair: 吳俊明(Jing-Ming Wu)

08:35 SCD in The Young: Implication of Genetic Test 邱舜南
(Shuenn-Nan Chiu)

Chair: 鍾宏濤(Hung-Tao Chung)

08:55 Common Cardiac Issues in Otherwise Healthy Adolescents 李昱昕
(Yu-Shin Lee)

Chair: 黃碧桃(Be-Tau Hwang)

09:15 青少年心血管疾病:血管超音波檢查之臨床運用 羅貿鴻
(Mao-Hung Lo)

Chair: 邱舜南 (Shuenn-Nan Chiu)

09:35 Panel Discussion

09:55 Closing Remarks 邱舜南
(Shuenn-Nan Chiu)

台北國際會議中心(TICC) 2F Room 201DE
**THERAPEUTIC STENT ARTERIOPLASTY FOR
CONGENITAL HEART DISEASE**

血管支架治療術在先天性心臟病的應用

- 10:30 Opening Remarks..... 吳美環
(Mei-Hwan Wu)
- Chair: 吳美環(Mei-Hwan Wu)**
- 10:35 Stent Aortoplasty for Coarctation of Aorta 陳俊安
(Chun-An Chen)
- Chair: 王玠能(Jieh-Neng Wang)**
- 10:55 Hybrid Therapy for Hypoplastic Left Heart Syndrome..... 傅雲慶
(Yun-Ching Fu)
- Chair: 鍾宏濤(Hung-Tao Chung)**
- 11:15 Stent Arterioplasty for PDA dependent CHD 林銘泰
(Ming-Tai Lin)
- Chair: 吳俊明(Jing-Ming Wu)**
- 11:35 Stent Arterioplasty for Peripheral Pulmonary Arterial Stenosis 張正成
(Jeng-Sheng Chang)
- 11:55 Closing Remarks 吳俊明
(Jing-Ming Wu)

台北國際會議中心(TICC) 2F Room 201F

ORAL PRESENTATION
【PEDIATRIC CARDIOLOGY & CARDIOVASCULAR SURGERY
& HEART FAILURE】

Chairs: 洪國竣(Kuo-Chun Hung)、林銘泰(Ming-Tai Lin)、
譚大中(Ta-Chung Shen)

- 08:30 The Impact of Mitral Valve Surgery on Right Ventricular Performance in Patients with Degenerative Mitral Regurgitation 張瑋婷
(Wei-Ting Chang)
- 08:45 Circulating Long Noncoding RNA Expression Signature as a Novel Biomarker for Myocardial Fibrosis 張祐禎
(Yu-Chen Chang)
- 09:00 Thrombolytic Therapy for Patients with Acute Massive Pulmonary Embolism Resuscitated with Extracorporeal Membrane Oxygenation 林鼎圍
(Ting-Wei Lin)
- 09:15 Comparisons of Clinical and Cardiovascular Characteristics Before and After Transcatheterization of Coronary Cameral Fistula in Pediatrics..... 吳怡樺
(Yi-Hua Wu)
- 09:30 Interventional Prognosis of Renovascular Hypertension in Pediatrics 李則逸
(Tse-Yi Li)
- 09:45 Intracoronary CD34+ Cell Therapy Further Improves One-year Left Ventricular Systolic Function in Patients with Concomitant End-stage Diffuse Coronary Artery Disease and Preserved Cardiac Performance 葉漢根
(Hon-Kan Yip)

台北國際會議中心(TICC) 2F Room 201F

***THS-TSOC JOINT SESSION (I):
DIGITAL HEALTH IN HYPERTENSION MANAGEMENT**

10:30 Opening Remarks..... 李源德
(Yuan-Teh Lee)

Chair: 林芳郁 (Fang-Yue Lin)

10:35 Digital Health in Hypertension Management: Experience from FEMH 吳彥雯
(Yen-Wen Wu)

Chair: 林中生 (Chung-Sheng Lin)

10:50 Digital Health in Hypertension Management: Experience from CHGH 陳冠群
(Kuan-Chun Chen)

Chair: 吳志成 (Chih-Cheng Wu)

11:05 Digital Health in Hypertension Management: Hsin-Chu Experience 李志國
(Chih-Kuo Lee)

Chair: 趙庭興 (Ting-Hsing Chao)

11:20 Digital Health in Hypertension Management in Mainland China 聯發科代表

Chair: 王宗道 (Tzung-Dau Wang)

11:50 Panel Discussion

12:00 Closing Remarks 江福田
(Fu-Tien Chiang)

*Taiwan Hypertension Society

台北國際會議中心(TICC) 2F Room 201F

***THS-TSOC JOINT SESSION (II):
2019 THS/TSOC CONSENSUS: RENAL DENERVATION AND
CENTRAL BP**

14:00 Opening Remarks..... 陳文鍾
(Wen-Jone Chen)

Chair: 侯嘉殷(Charles Jia-Yin Hou)

14:05 Renal Denervation: Evidence and Techniques 李應湘
(Ying-Hsiang Lee)

Chair: 林幸榮(Shing-Jong Lin)

14:20 Renal Denervation: Indications and Pre/Post-RDN Assessment 王宗道
(Tzung-Dau Wang)

Chair: 賴文德 (Wen-Ter Lai)

14:40 RDN in Germany and Perspectives on
2019 THS/TSOC ConsensusJoachim Weil

Chair: 陳震寰 (Chen-Huan Chen)

15:10 Pearls from 2019 THS/TSOC Consensus on Central BP 鄭浩民
(Hao-Min Cheng)

Chair: 陳震寰(Chen-Huan Chen)

15:25 Panel Discussion

15:30 Closing Remarks 鄭書孟
(Shu-Meng Cheng)

*Taiwan Hypertension Society

台北國際會議中心(TICC) 2F Room 201F

***THS-TSOC JOINT SESSION (III):
HYPERTENSION MANAGEMENT — UNMET NEEDS**

- 16:00 Opening Remarks..... 廖朝崧
(Chiau-Suong Liao)
- Chair: 翁國昌 (Kwo-Chang Ueng)**
- 16:05 2018 ESC/ESH Guidelines and Beyond: Hot Topics for the
Next Decade Giuseppe Rosano
- Chair: 陳宗瀛 (Chung-Yin Chen)**
- Debate: Is 120/70 mmHg the Adequate Lower Range of BP Targets ?
(with Pre- and Post-Voting)
- 16:35 Pro:江亮霆 (Liang-Ting Chiang)
- 16:47 Con:陳郁志(Michael Yu-Chih Chen)
- 16:59 Rebuttal (Pro)江亮霆 (Liang-Ting Chiang)
- 17:02 Rebuttal (Con)陳郁志(Michael Yu-Chih Chen)
- Chair: 王宗道(Tzung-Dau Wang)**
- 17:05 Hypertension Management in Multi-ethnic Populations:
XinJiang Experience Joachim Weil
- 17:30 Closing Remarks 黃瑞仁
(Juey-Jen Hwang)

*Taiwan Hypertension Society

台北國際會議中心(TICC) 3F South Foyer

ORAL PRESENTATION
【GENERAL CARDIOLOGY & HYPERTENSION】

Chairs: 黃崔源(Tsuei-Yuan Huang)、蔡正道(Cheng-Dao Tsai)、
葉勇信(Yung-Hsin Yeh)

- 08:30 Meta-analysis in HAS-BLED Score for Predicting Major Bleeding Risk in Non-vitamin K Oral Anticoagulant-treated Patients with Atrial Fibrillation 陳右荏
(Yu-Jen Chen)
- 08:45 Diagnostic and Prognostic Value of Heart Rhythm Complexity in Patients with Pulmonary Hypertension 蔡承烜
(Cheng-Hsuan Tsai)
- 09:00 Overexpression of TIFA in Patients with Pulmonary Arterial Hypertension 張皓智
(Hao-Chih Chang)
- 09:15 Impact of Transcatheter Thrombectomy Versus Intravenous Thrombolysis on Short-Term Survival in Atrial Fibrillation Related Acute Ischemic Stroke 王宇澄
(Yu-Chen Wang)
- 09:30 A Novel Atrial Fibrillation Prediction Model for Asians Using Artificial Intelligence Learning Model- Real World Evidences from a Nationwide Cohort Investigation of 682,237 Study Participants 胡幃勛
(Wei-Syun Hu)
- 09:45 The Impact of Sarcomeric Mutations on Myocardial Fibrosis and Ventricular Function in Hypertrophic Cardiomyopathy (SADS-TW HCM Registry Study) 陳璟毓
(Ching-Yu Chen)

台北國際會議中心(TICC) 3F South Foyer

**CRITICAL CARE MEDICINE SYMPOSIUM
GIRLS, GIRLS, GIRLS — WHEN CARDIOLOGISTS
ENCOUNTER PREGNANCY**

- 10:30 Opening Remarks..... 林昌琦
(Chang-Chyi Lin)
- Chair: 林昌琦(Chang-Chyi Lin)**
- 10:35 Pre-existing Cardiovascular Diseases..... 洪大川
(Ta-Chuan Hung)
- Chair: 張博淵(Po-Yuan Chang)**
- 11:15 Management of Pregnancy for Women with Congenital
Structural Defects..... 施景中
(Jin-Chung Shih)
- 11:55 Closing Remarks 張博淵
(Po-Yuan Chang)

Demo : China Medical University Hospital

Lecture : 3F Banquet Hall, TICC, Taipei

LIVE DEMONSTRATION

08:25 Opening Remarks..... 黃瑞仁
(Juey-Jen Hwang)

08:35 Session I

Operators : (Rm. I) 張詩聖(Shih-Sheng Chang)/ 呂尚謁(Shang-Yeh Lu) (Coronary) (Rm. II) 盧炯睿(Chiung-Ray Lu)/謝禮全(Li-Chuan Hsieh) (Coronary) IVUS, OCT, FFR Experts: 陳科維(Ke-Wei Chen)
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Chairs : 程俊傑 (Jun-Jack Cheng)、李文領 (Wen-Lieng Lee)

Commentators : 盧澤民(Tse-Min Lu)、洪志凌(Chi-Ling Hung)、
黃啟宏(Chi-Hung Huang)、劉俊廷 (Jun-Ting Liou)、
蔡政廷(Cheng-Ting Tsai)、王宇澄(Yu-Chen Wang)、
邱正安(Cheng-An Chiu)、蘇峻弘(Chun-Hung Su)

09:15-09:20 Lecture 1: Technical Tips and Tricks of CTO Intervention
— How to Open Stumpless CTOSunao Nakamura

10:30 Session II

Operators : (Rm. I) 羅秉漢(Ping-Han Lo)/ 陳科維(Ke-Wei Chen) (LAA occluder) (Rm. II) 徐中和(Chung-Ho Hsu) /王駿丞(Chun-Cheng Wang) (PAOD) IVUS, OCT, FFR Experts: 張偉俊(Wei-Chun Chang) ; TEE : 梁馨月(Hsin-Yueh Liang)
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Chairs : 吳炯仁 (Jun-Jack Cheng)、陳俊吉 (Jun-Jack Cheng)

Commentators : 王志鴻(Chiung-Jen Wu)、陳清埤(Ching-Pei Chen)、
蔡佳醜(Chia-Ti Tsai)、謝慕揚(Mu-Yang Hsieh)、
陳怡芝(I-Chih Chen)、李信賦(Hsin-Fu Lee)、王焱(Yan Wang)
王奇彥(Chi-Yen Wang)、許榮城(Jung-Cheng Hsu)

Discussants : 吳錫階(Xi-Jie Wu)、常棟(Dong Chang)、吳韋因(Wei-Yin Wu)、
姚彥爾(Yan-Er Yao)

10:50-11:00 Lecture 2: The Era of Atherectomy with Drug Eluting
Technology for PAD Intervention..... 李任光
(Jen-Kuang Lee)

11:00-11:10 Lecture 3: 左室室壁瘤折疊術治療心衰竭 王焱
(Yan Wang)

12:00 Lunch Time

Demo : National Taiwan University Hospital

Lecture : 3F Banquet Hall, TICC, Taipei

LIVE DEMONSTRATION**13:30 Session III**

Operators : (Rm. I)	Sunao Nakamura	(Coronary)
(Rm. II)	高憲立 (Hsien-Li Kao)	(TAVI)
IVUS, OCT, FFR Experts: 黃慶昌 (Ching-Chang Huang)		

Chairs : 謝宜璋(I-Chang Hsieh)、Hyo-Soo Kim

Commentators : 曹殿萍(Tien-Ping Tsao)、陳嬰華(Ying-Hwa Chen)、
張其任(Chi-Jen Chang)、劉世奇(Shih-Chi Liu)、
陳鉞忠(Yueh-Chung Chen)、鄭正忠(Cheng-Chung Cheng)、
王光德(Kuang-Te Wang)

14:20-14:30 Lecture 4: Update of TAVR..... 陳嬰華
(Ying-Hwa Chen)

15:30 Session IV

Operators : (Rm. I)	林彥宏 (Yen-Hung Lin)	(CTEPH)
(Rm. II)	李任光 (Jen-Kuang Lee)	(PAOD)
IVUS, OCT, FFR Experts: 黃慶昌 (Ching-Chang Huang)		

Chairs : 曾維功(Wei-Kung Tseng)、黃玄禮(Hsuan-Li Huang)

Commentators : Takeshi Ogo、吳典育(Tien-Yu Wu)、
徐中和(Chung-Ho Hsu)、劉尊睿(Tsun-Jui Liu)、
李政翰(Cheng-Han Lee)、吳懿哲(Yih-Jer Wu)、
黃文彬(Wen-Pin Huang)、許栢超(Po-Chao Hsu)

Discussants : 陳偉斌(Wei-Bin Chen)、葉明才(Ming-Cai Ye)、
李桂陽(Gui-Yang Li)、呂佳藍(Jia-Lan Ly)

16:20-16:30 Lecture 5: How to Integrate ADR into Japanese Style
Wire Escalation Technique 顧博明
(Po-Ming Ku)

17:25 Closing Remarks 曹殿萍
(Tien-Ping Tsao)

台北國際會議中心(TICC) 1F Room 102

DIABETES & HEART FAILURE

14:00 Opening Remarks..... 王兆弘
(Chao-Hung Wang)

Chair: 王兆弘(Chao-Hung Wang)

14:05 SGLT2 Inhibitors and Mechanisms of Cardiovascular Benefit..... Sobodh Verma

Chair: 曾炳憲(Bing-Hsien Tzeng)

14:35 Diabetes and Heart Failure in Asia: Insights from Asian HF Study 洪崇烈
(Chung-Lieh Hung)

Chair: 張勝南(Sheng-Nan Chang)

14:55 CV Outcomes of Anti-diabetes Therapy: Focus on Heart Failure
Outcomes 王治元
(Chih-Yuan Wang)

Chair: 張坤正(Kuan-Cheng Chang)

15:15 Diabetes & Cardiorenal Disease 蔡尚峰
()

15:35 Closing Remarks 張坤正
(Kuan-Cheng Chang)

台北國際會議中心(TICC) 1F Room 102

***JHFS-TSOC JOINT SESSION:
IMAGING IN HEART FAILURE**

16:00 Opening Remarks.....王俊傑(Chun-Chieh Wang)&
Hiroyuki Tsutsui

Chair: 張鴻猷(Hung-Yu Chang)

16:05 The Role of Transesophageal Echo and 3D Cardiac Echo Examinations in the
Diagnosis of Heart Failure 熊名琛
(Ming-Chon Hsiung)

Chair: 黃偉春 (Wei-Chun Huang)

16:25 The Role of Speckle Tracking Imaging and Contrast Echo Examinations in the
Diagnosis of Heart Failure 蔡惟全
(Wei-Chuan Tsai)

Chair: 黃金隆(Jin-Long Huang)

16:45 The Role of Nuclear Medicine Examination in the Diagnosis of
Heart Failure 洪光威
(Guang-Uei Hung)

Chair: Hiroyuki Tsutsui

17:05 Cardiac PET/MRI Imaging in Heart Failure.....Yasuchika Takeishi

17:25 Closing Remarks Hiroyuki Tsutsui&李啟明
(Chii-Ming Lee)

*The Japanese of Heart Failure Society

台北國際會議中心(TICC) 1F Room 103

***JCS-TSOC JOINT SESSION:
PRECISION MEDICINE IN THE TREATMENT FOR
CARDIOVASCULAR DISEASES**

14:00 Opening Remarks.....黃瑞仁(Juey-Jen Hwang)& Issei Komuro

Chairs: Issei Komuro、Juey-Jen Hwang(黃瑞仁)

14:05 Multiomics Dissection of Heart Failure for Cardiovascular
Disease..... Seitaro Nomura

14:30 Genetic Analysis of Cardiomyopathy for Precision MedicineTakashige Tobita

Chair: 陳肇文(Jaw-Wen Chen)

14:55 Multiomics Dissection of Atrial Fibrillation —— Implications in Diagnosis
and Prognosis 蔡佳醜
(Chia-Ti Tsai)

15:15 Panel Discussion

15:25 Closing RemarksIssei Komuro&陳肇文
(Jaw-Wen Chen)

*The Japanese Circulation Society

台北國際會議中心(TICC) 1F Room 103
**ANIMAL AND CELLULAR MODELS IN
CARDIOVASCULAR RESEARCH**

- 16:00 Opening Remarks..... 蔡佳醜
(Chia-Ti Tsai)
- Chair: 蔡佳醜(Chia-Ti Tsai)**
- 16:05 Arrhythmia 柯文欽
(Wen-Chin Ko)
- Chair: 陳肇文(Jaw-Wen Chen)**
- 16:30 Atherosclerosis..... 黃柏勳
(Po-Hsun Huang)
- Chair: 陳肇文(Jaw-Wen Chen)**
- 16:55 Pulmonary Hypertension 陳柏升
(Po-Sheng Chen)
- Chair: 葉宏一(Hung-I Yeh)**
- 17:20 Panel Discussion
- 17:30 Closing Remarks 葉宏一
(Hung-I Yeh)

台北國際會議中心 (TICC) 1F Room 105

**IMPLANTABLE VENTRICULAR ASSIST DEVICE :
SELECTION CRITERIA, TIMING, MANAGEMENT,
TAIWAN STATUS**

Chairs: 陳益祥(Yih-Sharng Chen)、林萍章(Pyng Jing Lin)、
李秉純(Ping-Chun Li)、張忠毅(Chung-Yi Chang)、
羅傳堯(Chwan-Yau Luo)

- 14:00 Failed Medical Therapy in Advance Heart Failure, What's Next?..... 王俊傑
(Chun-Chieh Wang)
- 14:20 VAD Inclusion Criteria..... 張效煌
(Hsiao-Huang Chang)
- 14:30 Short-term VAD Result in Taiwan 王植賢
(Chih-Hsien Wang)
- 14:40 How to Selection and VAD Candidate and Start A VAD Program..... Peter Bergin
- 15:00 VAD Management and Its Perspective..... Koichiro Kinugawa
- 15:20 Panel Discussion

台北國際會議中心(TICC) 1F Room 105

SYMPOSIUM ON AS

Chairs: TBA、張仁平(Jen-Ping Chang)、許榮彬(Ron-Bin Hsu)

- 16:00 Aortic Valve Replacement with Conventional Surgery..... 蔡宜廷
(Yi-Ting Tsai)
- 16:10 Surgery of Aortic Stenosis in Small Aortic Root..... 蔡孟達
(Meng-Ta Tsai)
- 16:20 Managing Aortic Stenosis in Patients with Ascending Aortic Aneurysm.... 陳怡誠
(I-Chen Chen)
- 16:30 Panel Discussion

**Chairs: 林佳勳(Chia-Hsun Lin)、許喬博(Chao-Po Hsu)、
蔡建松(Chien-Sung Tsai)**

- 16:45 Minimal Approach of Aortic Stenosi Surgery..... 陳映澄
(Ying-Cheng Chen)
- 16:55 Sutureless Prostheses for Aortic Stenosis Surgery..... 紀乃新
(Nai-Hsin Chi)
- 17:05 Transcatheter Aortic Valve Implantation for Aortic Stenosis 謝炯昭
(Chong-Chao Hsieh)
- 17:15 Panel Discussion

台北國際會議中心(TICC) 2F Room 201A

***ESC-TSOC JOINT SESSION:
HYPERTENSION: WHERE ARE WE HEADING FROM
HERE?**

16:00 Opening Remarks..... 黃瑞仁(Juey-Jen Hwang) & Luis Miguel Ruilope

Chair: 黃瑞仁(Juey-Jen Hwang)

16:05 2017 AHA/ACC HT Guidelines and 2018 ESC/ESH HT Guidelines:
More Similar or Dissimilar? Luis Miguel Ruilope

Chair: 陳志鴻(Jyh-Hong Chen)

16:30 Trans-Atlantic Discrepancy in HT Guidelines:
Where do We Stand in 2019? 王宗道
(Tzung-Dau Wang)

Chair: 林俊立(Jiunn-Lee Lin)

16:55 The J-Curve: Fact or Fiction? Bert-Jan H. van den Born

Chair: 林俊立(Jiunn-Lee Lin)

17:20 Panel Discussion

17:30 Closing Remarks Bert-Jan H. van den Born & 謝士明
(Shyh-Ming Shieh)

* European Society of Cardiology

台北國際會議中心(TICC) 2F Room 201BC

**A PATIENT WITH CHF AND
CLINICALLY SIGNIFICANT ARRHYTHMIA**

14:00 Opening Remarks..... 吳茲睿
(Tsu-Juey Wu)

Chair: 吳茲睿(Tsu-Juey Wu)

14:05 A Patient with CHF and SVT 李政鴻
(Cheng-Hung Li)

Chair: 張坤正(Kuan-Cheng Chang)

14:25 A Patient with CHF and PVCs 吳宏彬
(Hung-Pin Wu)

Chair: 劉言彬(Yen-Bin Liu)

14:45 A Patient with CHF and AF 游治節
(Chih-Chieh Yu)

Chair: 林彥璋(Yenn-Jiang Lin)

15:05 A Patient with CHF and Non-ischemic VT 林晉宇
(Chin-Yu Lin)

15:25 Closing Remarks 林彥璋
(Yenn-Jiang Lin)

台北國際會議中心(TICC) 2F Room 201BC
LEAD RETRACTION AND MANAGEMENT

- 16:00 Opening Remarks..... 劉言彬
(Yen-Bin Liu)
Chair: 蕭相江(Hsiang-Chiang Hsiao)
- 16:05 History of Abandon Lead Management 黃嵩豪
(Sung-Hao Huang)
Chair: 黃靜惠(Ching-Hui Huang)
- 16:20 Prevention and Management of Infection with CIED 陳永隆
(Yung-Lung Chen)
Chair: 馮安寧(An-Ning Feng)
- 16:35 Surgical Method of Lead Removal 紀乃新
(Nai-Hsin Chi)
Chair: 郭任遠(Jen-Yuan Kuo)
- 16:50 Guideline of Lead Retraction 李應湘
(Ying-Hsiang Lee)
Chair: 謝育整(Yu-Cheng Hsieh)
- 17:05 Case Sharing of Lead Extraction 李政鴻
(Cheng-Hung Li)
Chair: 林國宏(Kuo-Hung Lin)
- 17:20 Discussion All
- 17:30 Closing Remarks 林國宏
(Kuo-Hung Lin)

台北國際會議中心(TICC) 2F ROOM 201DE
**RECENT ADVANCE IN THE MANAGEMENT OF DIABETES
IN PATIENTS WITH CVD
PART (I)**

14:00 Opening Remarks..... 陳志鴻
(Jyh-Hong Chen)

Chair: 褚柏顯(Pao-Hsien Chu)

14:05 Comparison of Guidelines/Consensus: TSOE, EASD, and ADA 王岡陵
(Kang-Ling Wang)

Chair: 葉宏一(Hung-I Yeh)

14:30 Patients with CV Risk Factors Alone..... 吳懿哲
(Yih-Jer Wu)

Chair: 張瑞月(Rei-Yeuh Chang)

14:55 Patients with Coronary Heart Disease..... 翁國昌
(Kwo-Chang Ueng)

Chair: 徐國基(Kou-Gi Shyu)

15:20 Panel Discussion

15:30 Closing Remarks 林幸榮
(Shing-Jong Lin)

台北國際會議中心(TICC) 2F Room 201DE
**RECENT ADVANCE IN THE MANAGEMENT OF DIABETES
IN PATIENTS WITH CVD
PART (II)**

- 16:00 Opening Remarks..... 陳文鍾
(Wen-Jone Chen)
- Chair: 李貽恆(Yi-Heng Li)**
- 16:05 Patients with A History of Stroke 趙庭興
(Ting-Hsing Chao)
- Chair: 鄭正一(Cheng-I Cheng)**
- 16:30 Patients with Chronic Kidney Disease..... 林宗憲
(Tsung-Hsien Lin)
- Chair: 吳彥雯(Yen-Wen Wu)**
- 16:55 Patients with Heart Failure 江晨恩
(Chern-En Chiang)
- Chair: 賴文德(Wen-Ter Lai)**
- 17:20 Panel Discussion
- 17:30 Closing Remarks 葉森洲
(San-Jou Yeh)

台北國際會議中心(TICC) 3F South Foyer
EXPLORING ISSUES OF CARDIAC IMAGING

- 14:00 Opening Remarks..... 蔡惟全
(Wei-Chuan Tsai)
- Chair: 蔡惟全(Wei-Chuan Tsai)、林隆君(Lung-Chun Lin)**
- 14:05 Strain Should Be a Part of the Comprehensive Echocardiogram 張瑋婷
(Wei-Ting Chang)
- 14:25 Echocardiography in Mechanical Circulatory Support 黃冠智
(Kuan-Chih Huang)
- 14:45 Functional Tricuspid Regurgitation 蔡蕙如
(Huey-Ru Tsai)
- 15:05 3-D Printing in Cardiology 林維文
(Wei-Wen Lin)
- 15:25 Closing Remarks 林隆君
(Lung-Chun Lin)

台北國際會議中心(TICC) 3F South Foyer

**PORTABLE TO HANDHELD ULTRASOUND AS THE
POCUS (POINT-OF-CARE ULTRASOUND)**

- 16:00 Opening Remarks..... 秦志輝
(Chih-Hui Chin)
Chair: 秦志輝(Chih-Hui Chin)、張博淵(Po-Yuan Chang)
- 16:05 The Clinical Scenarios of POCUS..... 張維典
(Wei-Tien Chang)
- 16:25 How to Perform and Teach the POCUS 梁馨月
(Hsin-Yueh Liang)
- 16:45 Integration with the Hospital Workflow: Storage and Communication 洪崇烈
(Chung-Lieh Hung)
- 17:05 Vascular Examination and Guidance 謝慕揚
(Mu-Yang Hsieh)
- 17:25 Closing Remarks 張博淵
(Po-Yuan Chang)

台北國際會議中心(TICC) 1F Room 102

***ACC IN TAIWAN:
WOMEN HEART HEALTH**

08:20 Opening Remarks..... 林俊立(Jiunn-Lee Lin) & Dipti Itchhaporia

Chair: 葉森洲(San-Jou Yeh)

08:25 Cardiac Care in Women: US Perspectives Dipti Itchhaporia

Chair: 殷偉賢(Wei-Hsian Yin)

09:00 Ischemic Heart Disease in Asian Women 陳嬰華
(Ying-Hwa Chen)

Chair: 程文俊(Wen-Jin Cherng)

09:25 Heart Failure in Asian Women 吳彥雯
(Yen-Wen Wu)

Chair: 王宗道(Tzung-Dau Wang)

09:50 Panel Discussion

10:00 Closing Remarks 黃瑞仁(Juey-Jen Hwang) & Dipti Itchhaporia

* American College of Cardiology

台北國際會議中心(TICC) 1F Room 103

**LIPIDOMICS AND PROTEOMICS IN
CARDIO METABOLIC DISEASES**

08:20 Opening Remarks..... 郭啟泰
(Chi-Tai Kuo)

Chair: 郭啟泰(Chi-Tai Kuo)

08:25 General Introduction 楊偉勳
(Wei-Shiung Yang)

Chair: 林錦生(Chin-Sheng Lin)

08:50 Making the Most out of -Omics Data: A New Understanding
of CV Physiology, Pathology & Future Therapies..... Manuel Mayr

Chair: 蔡佳醜(Chia-Ti Tsai)

09:30 Application of Extracellular Vesicles in Cardiometabolic Diseases..... 林錦生
(Chin-Sheng Lin)

09:55 Closing Remarks 蔡佳醜
(Chia-Ti Tsai)

台北國際會議中心 (TICC) 2F Room 201A

STEM CELL THERAPY IN CARDIOVASCULAR DISEASES

幹細胞再生醫學在心血管領域最新進展

- 08:20 Opening Remarks..... 翁國昌
(Kwo-Chang Ueng)
- Chair: 翁國昌(Kwo-Chang Ueng)**
- 08:25 幹細胞治療在心血管應用~過去 現在 未來..... 李英雄
(Ying-Shiung Lee)
- 08:50 中山附醫經驗分享: Safety and Preliminary Efficacy Study of Intravenous
Administration of MiSaver (Umbilical Cord Blood Derived Nucleated Cells)
After Acute Myocardial Infarction..... 莊曜聰
(Yao-Tsung Chuang)
- Chair: 張坤正(Kuan-Cheng Chang)**
- 09:05 中國附醫經驗分享: Cell Therapy in Acute Myocardial Infarction 蕭連城
(Lien-Cheng Hsiao)
- Chair: 褚柏顯(Pao-Hsien Chu)**
- 09:20 高雄長庚經驗分享: The Results of Phases I and II Clinical Trials of Intra-
coronary Administration of Autologous Endothelial Progenitor
Cells for Diffuse Coronary Artery Disease Patients Who Were
Non-candidate for Coronary Intervention..... 葉漢根
(Hon-Kan Yip)
- 09:35 成大醫院經驗分享: Recent Advances of Human Pluripotent Stem Cell Therapy
in Cardiac Regeneration 劉嚴文
(Yen-Wen Liu)
- 09:50 Panel Discussion
- 09:55 Closing Remarks 褚柏顯
(Pao-Hsien Chu)

台北國際會議中心(TICC) 2F, Room 201BC

08:20 TSOC President Address 黃瑞仁
(Juey-Jen Hwang)

YOUNG INVESTIGATOR AWARD LECTURE

Chair: 曾淵如(Yung-Zu Tseng)

08:25 第一名得獎者
()

NONG TING AWARD LECTURE

Chair: 陳志鴻(Jyh-Hong Chen)

08:40 Care and Outcomes of Acute Coronary Syndrome in Taiwan: DAPT as an
Example..... 李貽恒
(Yi-Heng Li)

PLENARY SPEECH

Chair: 林俊立(Jiunn-Lee Lin)

09:00Jeroen Bax

Chair: 江福田(Fu-Tien Chiang)

09:30 Insights to Cardiovascular Disease Risk through Population-Based
Studies Panos Deloukas

TSOC GENERAL ASSEMBLY

10:30 TSOC General Assembly

Chairs: 黃瑞仁 (Juey-Jen Hwang) 理事長、
程文俊 (Wen-Jin Cherng) 常務監事

Reporter: 吳彥雯 (Yen-Wen Wu) 秘書長

台北國際會議中心 (TICC) 2F Room 201DE

***TSCI-TSOC JOINT SYMPOSIUM :
CATHETER OR KNIFE**

08:30 Opening Remarks..... 黃瑞仁
(Juey-Jen Hwang)

Chairs: 王怡智(Yi-Chih Wang)、張忠毅(Chung-Yi Chang)

Panelists: 王志鴻(Ji-Hung Wang)、李文領(Wen-Lieng Lee)、
紀乃新(Nai-Hsin Chi)、游皓鈞(Hao-Chun Yu)

CAD: LM Stenosis CABG or PCI ?

08:35 CABG 邱冠明
(Kuan-Ming Chiu)

08:50 PCI 張其任
(Chi-Jen Chang)

09:05 Discussion

Chairs: 曾維功(Wei-Kung Tseng)、吳毅暉(I-Hui Wu)

Panelists: 黃懷緒(Huai-Hsu Huang)、陳沂名(I-Ming Chen)、
陳俊吉(Chun-Chi Chen)、許栢超(Po-Chao Hsu)

SFA Long CTO: Bypass vs EVT ?

09:15 Bypass..... 蔡宜廷
(Yi-Tung Tsai)

09:30 EVT 李任光
(Jen-Kuang Lee)

09:45 Discussion

09:55 Closing Remarks 殷偉賢
(Wei-Hsian Yin)

* Taiwan Society of Cardiovascular Interventions

台北國際會議中心(TICC) 2F Room 201F

**CARDIOVASCULAR REGISTRY IN TAIWAN:
THE PAST、PRESENT、FUTURE**

台灣心血管登錄計劃的回顧和展望

08:20 Opening Remarks..... 葉宏一
(Hung-I Yeh)

Chair: 吳造中(Chau-Chung Wu)

08:25 T-SPARCLE..... 吳彥雯
(Yen-Wen Wu)

Chair: 陳肇文(Jaw-Wen Chen)

08:50 Biosignature..... 呂信邦
(Hsin-Bang Leu)

Chair: 徐國基(Kou-Gi Shyu)

09:15 ACS Registry..... 李貽恒
(Yi-Heng Li)

Chair: 李貽恒(Yi-Heng Li)

09:40 Panel Discussion

09:55 Closing Remarks..... 李貽恒
(Yi-Heng Li)

台北國際會議中心(TICC) 1F Room 102

**JOINT COMMITTEE OF
CRITICAL CARE MEDICINE CERTIFIED COURSE —
CARDIOVASCULAR DISEASES COMPLICATED BY
DISORDERS FROM OTHER ORGAN SYSTEMS – UNSUNG
MELODY TO CARDIOLOGISTS
〔 REGISTRATION ONLY 〕**

- 13:15 Opening Remarks..... 林昌琦
(Chang-Chyi Lin)
- 13:20-14:04 Pulmonology and Cardiologists**
- Chairs: 潘如濱(Ju-Pin Pan)、羅鴻舜(Hung-Shun Lo)**
- 13:20 RV Failure in Association with Pulmonary Diseases 許志新
(Chih-Hsin Hsu)
- 13:42 Respiratory Crisis in Cardiovascular Diseases 柯信國
(Hsin-Kuo Ko)
- 14:04-14:48 Endocrinology and Cardiologists**
- Chairs: 溫明賢(Ming-Shien Wen)、李坤泰(Kun-Tai Lee)**
- 14:04 Cardiovascular Manifestation of Endocrine Diseases..... 蔡宗能
(Tsung-Neng Tsai)
- 14:26 Endocrine Crisis in the Middle of Cardiovascular Turmoil..... 王治元
(Chih-Yuan Wang)
- 14:48 **Healthy Break**
- 14:57-15:41 Oncology and Cardiologists**
- Chairs: 林明正(Ming-Cheng Lin)、鄭正忠(Cheng-Chung Cheng)**
- 14:57 New Lesions Found — How Can We Set up Management Agenda? 林鴻儒
(Hung-Ju Lin)
- 15:19 In the Course of Cancer Treatment — Which Comes First? 鄭凱鴻
(Kai-Hung Cheng)
- 15:41-16:25 Surgery and Cardiologists**
- Chairs: 張忠毅(Chung-Yi Chang)、王晨旭(Chen-Hsu Wang)**
- 15:41 Cardiology Clearance 黃國巡
(Go-Shine Huang)
- 16:03 Planned Approach in Cardiovascular Patients..... 林鼎詔
(Ting-Chao Lin)
- 16:25 Closing Remarks 張博淵
(Po-Yuan Chang)

台北國際會議中心(TICC)1F Room 103

醫療品質專題研討會

13:15 Opening Remarks..... 鄭成泉
(Chen-Chuan Cheng)

Chair: 施俊明(Chun-Ming Shih)

13:20 末期心臟病人如何善終 張恒嘉
(Heng-Chia Chang)

13:45 Discussion

Chair: 王水深(Shoei-Shen Wang)

13:50 如何提昇心臟科經營的品質與效能 陳文鍾
(Wen-Jone Chen)

14:15 Discussion

Chair: 侯紹敏(Shaw-Min Hou)

14:20 AI 在心臟醫學的可能運用 張嘉淵
(Ted Chang)

14:45 Discussion

14:50 Closing Remarks 陳文鍾
(Wen-Jone Chen)

台北國際會議中心(TICC)1F Room 103

基層醫療健保研討會

15:00 Opening Remarks..... 蔡正道
(Cheng-Dao Tsai)

Chair: 蔡正道(Cheng-Dao Tsai)

15:05 雙向轉診(行政面向)..... 林宜民
(Yi-Ming Lin)

15:25 Discussion

Chair: 廖智冠(Chih-Kuan Liao)

15:30 雙向轉診實施影響及困境..... 徐迺維
(Nai-Wei Hsu)

15:50 Discussion

Chair: 朱戈靖(Ko-Ching Chu)

15:55 Aspirin Primay Prevention..... 陳朝欽
(Chao-Chin Chen)

16:15 Discussion

16:20 Closing Remarks 陳清埤
(Ching-Pei Chen)

台北國際會議中心(TICC) 2F Room 201A

HEART TEAM DEBATE (I)

A. Experience Surgical Team: 紀乃新(Nai-Hsin Chi)

B. Experience Intereventional Team: 陳怡誠(I-Chen Chen)

13:15 Opening Remarks..... 李永在
(Yung-Tsai Lee)

13:20 TAVR or SAVR in Critical AS with Intermediate Risks
Team A and then Team B (12 minutes for each)

13:50 Surgery (MVR +/- heart transplantation) or MitraClip for Severe Functional MR
Team B and then Team A (12 minutes for each)
Team A

14:20 RebuttalAB, 5 minutes for each

14:30 Panel Discussion

14:40 Closing Remarks 宋思賢
(Shih-Hsien Sung)

台北國際會議中心(TICC) 2F Room 201A

HEART TEAM DEBATE (II)

Case presentaters: 黃偉銘(Wei-Ming Huang)、陳盈憲(Ying-Hsien Chen)

15:00	Opening Remarks.....	宋思賢 (Shih-Hsien Sung)
15:05	Case 1	Presenter 4 mins, AB, 7 mins for Each
15:23	Case 2	Presenter 4 mins, AB, 7 mins for Each
15:41	Case 3	Presenter 4 mins, AB, 7 mins for Each
15:59	Case 4	Presenter 4 mins, AB, 7 mins for Each
16:17	Conclusions	BA, 4 mins for Each
16:25	Closing Remarks	李永在 (Yung-Tsai Lee)

台北國際會議中心(TICC) 2F Room 201BC

CROSS-STRAIT SYMPOSIUM (I)

兩岸CTO病例分享

- 13:15 Opening Remarks..... 王志鴻
(Ji-Hung Wang)
- Chairs: 王志鴻(Ji-Hung Wang)、殷偉賢(Wei-Hsian Yin)、
方慶章(Ching-Chang Fang)、李文領(Wen-Lieng Lee)、
胡 濤(Tao Hu)、馬劍英(Jiaying Ma)、
李春堅(Chunjian Li)、聶斌(Bin Nie)、**
- 13:18 我印象最深的 CTO 胡濤
(Tao Hu)
- 13:28 Panel Discussion
- 13:32 經極度扭曲心外膜側枝雙向 KNUCKLE 開通 LAD CTO 一例 馬劍英
(Jiaying Ma)
- 13:42 Panel Discussion
- 13:46 IVUS 指導下 CTO 介入治療..... 李春堅
(Chunjian Li)
- 13:56 Panel Discussion
- 14:00 搭橋術後自身血管 CTO 開通策略 聶斌
(Bin Nie)
- 14:10 Panel Discussion
- 14:14 眾裏尋他千百度，驀然回首，卻在燈火闌珊處
(複雜 CTO 介入)..... 邱正安
(Cheng-An Chiu)
- 14:24 Panel Discussion
- 14:28 How to Management CTO with Ambiguous Cap 郭風裕
(Cheng-An Chiu)
- 14:38 Panel Discussion
- 14:42 Closing Remarks 黃瑞仁
(Juey-Jen Hwang)

台北國際會議中心(TICC) 2F Room 201BC

CROSS-STRAIT SYMPOSIUM (II)

兩岸創新思維同享

- 15:00 Opening Remarks..... 謝宜璋
(I-Chang Hsieh)
- Chairs: 黃偉春(Wei-Chun Huang)、董鵬(Peng Dong)、
謝宜璋(I-Chang Hsieh)、陳志成(Zhih-Cherng Chen)、
邱正安(Cheng-An Chiu)、郭風裕(Cheng-An Chiu)、沈蘆(Li Shen)、
彭建軍(Jia-Njun Peng)**
- 15:05 中國心血管醫生的創新機遇與實踐..... 沈蘆
(Li Shen)
- 15:22 Panel Discussion
- 15:27 生物傳感器與心血管可穿戴設備最新進展..... 彭建軍
(Jia-Njun Peng)
- 15:44 Panel Discussion
- 15:49 從牛頓第三定律到人工心..... 劉巍
()
- 16:06 Panel Discussion
- 16:11 CTO 器械的研發改進..... 董鵬
(Peng Dong)
- 16:27 Panel Discussion
- 16:32 大國工匠、匠心獨運..... 成正輝
()
- 16:49 Panel Discussion
- 16:54 Closing Remarks..... 王志鴻
(Ji-Hung Wang)

台北國際會議中心(TICC) 2F Room 201DE

***KSC-TSOC JOINT SESSION:
ACUTE CORONARY SYNDROME**

13:15 Opening Remarks..... 黃瑞仁(Juey-Jen Hwang) & Kee Sik Kim

Chair: 黃瑞仁(Juey-Jen Hwang)

13:20 Consensus of the Management of NSTEMI-ACS Patients in Taiwan 李貽恒
(Yi-Heng Li)

13:35 Q & A

Chair: Kee Sik Kim

13:40 Antiplatelet Therapy after DES Implantation in ACS Patients:
SMART-DATE, SMART-CHOICE Trials Hyeon Cheol Gwon

13:55 Q & A

Chair: Kee Sik Kim

14:00 Current Status of Acute Myocardial Infarction in Korea.
Insight from KAMIR..... Jang Hoon Lee

14:15 Q & A

Chair: 曹殿萍(Tien-Ping Tsao)

14:20 PCI in Elderly Patients with Acute Coronary Syndrome..... 鄭正忠
(Cheng-Chung Cheng)

14:40 Closing Remarks Kee Sik Kim & 曹殿萍
(Tien-Ping Tsao)

* Korean Society of Cardiology

台北國際會議中心(TICC) 1F 西側走廊

CHAired POSTERS (I): P01-06

Chairs: 洪明銳(Ming-Jui Hung)、黃建富(Chien-Fu Huang)、
謝明哲(Ming-Jer Hsieh)

- 10:00 TXNDC5 Is a Novel Therapeutic Target of Atrial Fibrosis and Fibrillation 吳佩蓁
(Pei-Chen Wu)
- 10:05 Characteristics of Recurrent Ventricular Tachyarrhythmia after Catheter Ablation in Patients with Arrhythmogenic Right Ventricular Cardiomyopathy 林晉宇
(Chin-Yu Lin)
- 10:10 Hypoglycemic Episodes Increase the Risk of Ventricular Arrhythmias and Sudden Cardiac Arrest in Patients with Type 2 Diabetes- A Nationwide Cohort Study 廖英傑
(Ying-Chieh Liao)
- 10:15 N-cadherin Promotes Cardiac Regeneration by Stabilizing Beta-Catenin 曾意軒
(Yi-Shuan Tseng)
- 10:20 Levosimendan Shortens Action Potential Duration, Decreases Alternans Threshold and Prevents Ventricular Arrhythmia during Therapeutic Hypothermia in Isolated Rabbit Hearts 謝育整
(Yu-Cheng Hsieh)
- 10:25 Menopausal Symptoms have Different Impacts on Risk of Heart Failure and Coronary Heart Disease: A Nationwide Population-based Cohort Study 黃靜惠
(Ching-Hui Huang)

台北國際會議中心(TICC) 1F 西側走廊

CHAired POSTERS (II): P07-12

Chairs: 蘇正煌(Cheng-Huang Su)、余文鍾(Wen-Chung Yu)、
蔡適吉(Su-Kiat Chua)

- 15:30 Composite Cardiovascular Outcomes in Patients with Primary Aldosteronism
Medical versus Surgical Treatment: a Meta-analysis 黃偉杰
(Wei-Chieh Huang)
- 15:35 Real-world Data on the Effect of Unguided Dede-escalated De-escalation
of P2Y12 Receptor Inhibitor Therapy Switching Dual Antiplatelet Therapy
after Acute Myocardial Infarction in Patients Undergoing Percutaneous
Coronary Intervention – a Nationwide Cohort Study..... 徐千彝
(Chien-Yi Hsu)
- 15:40 Left Ventricular Deformation Measures are Useful Predictors of Cardiac
Outcomes in Patients with Atrial Fibrillation 郭任遠
(Jen-Yuan Kuo)
- 15:45 Comparison between Ticagrelor versus Clopidogrel in Long Term
Outcomes of Taiwanese Diabetic Subjects with Acute Coronary Syndrome
Undergoing Successful Revascularization; from
TSOC ACS-DM Registry 鄭浩民
(Hao-Min Cheng)
- 15:50 Immediate Results and Long-term Outcomes Following Percutaneous
Radiofrequency Ablation of Unilateral Aldosterone-producing
Adenoma 羅健賢
(Chien-Hsien Lo)
- 15:55 Metformin was Associated with Lower All-Cause Mortality in Type 2
Diabetes with Acute Coronary Syndrome: A Nationwide Registry with
Propensity Score-Matched Analysis..... 楊欽文
(Chien-Boon Jong)

1F, 論文壁報展示區

POSTER PRESENTATION

ELECTROPHYSIOLOGY

- P13 Application of QRS Dispersion with Surface ECG to Stratified the Risk of Fatal Ventricular Arrhythmia..... 吳政億
(Cheng-I Wuh)
- P14 The Predictors for Long-term Outcome of OHCA Patients- One Center Experience..... 吳政億
(Cheng-I Wuh)
- P15 New Therapy for the Management of Cardiac Implantable Electronic Device Infection..... 廖峰慶
(Feng-Ching Liao)
- P16 Hypoglycemic Episodes Increase the Risk of Ventricular Arrhythmias and Sudden Cardiac Arrest in Patients with Type 2 Diabetes- A Nationwide Cohort Study 謝育整
(Yu-Cheng Hsieh)
- P17 Catheter Ablation for Atrial Fibrillation with Heart Failure: A Systematic Review and Meta-analysis of Randomized Controlled Trials 潘國利
(Kuo-Li Pan)

CARDIAC IMAGING

- P18 Transcatheter Mitral Valve-in-Valve Implantation to Treat Paravalvular Leak of Surgical Bioprosthesis: Is It Feasible?..... 賴緯聰
(Wei-Chong Lai)
- P19 Epicardial Adipose Tissue in Patients with Hemodialysis 蘇河名
(Tien-En Chen)

- P20 The Implementation of 10-Year Cardiovascular Risk Calculator
with Coronary Artery Calcium Score in Taiwanese Population 梁碩文
(Allan Shuo-Wen Liang)
- P21 The Incremental Diagnostic Value of Coronary Artery Calcium
Scoring to Myocardial Perfusion Imaging in Left Circumflex
and Right Coronary Artery Territories 謝宜瑾
(Yi-Jin Hsieh)
- P22 The Predictive Value of Global Longitudinal Strain in Patients
with Heart Failure Mid-range Ejection Fraction 張瑋婷
(Wei-Ting Chang)
- P23 The Diagnostic Value of Relative Apical Sparing of Longitudinal
Strain in Infiltrative Cardiomyopathy 呂岱穎
(Dai-Yin Lu)

HYPERTENSION

- P24 Pre-dialysis Visit-to-visit Systolic Blood Pressure Variability
is Associated with History of Stroke in Maintenance Hemodialysis
Patients 陳秋惠
(Chiu-Hui Chen)
- P25 Epidemiological Study of Hypertensive Diseases: A Medical
Center-based Outpatient Clinic during 2016-2017 余嘉鵬
(Chia-Peng Yu)
- P26 The Dose-Response Effect of Serum Uric Acid Associated
with Incident Hypertension Regarding Various Contemporary
Blood Pressure Guidelines in Healthy Individuals 劉崢偉
(Cheng-Wei Liu)

CARDIOVASCULAR SURGERY

- P27 Sex-related Differences in Clinical Outcome of Severe Aortic
Stenosis after Transcatheter Aortic Valve Replacement..... 李香君
(Hsiang-Chun Lee)

P28 Popliteo-distal Bypass after Failed Endovascular Treatment
(EVT)..... 張耀中
(Yau-Chong Chang)

P29 Endovascular Intervention for Suclavain Artery Stenosis:
A Single Center 19 Year Experience..... 李愛先
(Ai-Hsien Li)

CORONARY ARTERY DISEASE

P30 The Impact of Door-to-electrocardiogram Time on Door-to
-balloon Time after Achieving Target Rate – A Regional
Hospital Experience..... 李明憲
(Ming-Hsien Lee)

P31 Systemic Immune-inflammation Index (SII) Predicted Clinical Outcome in Patients
With Coronary Artery Disease 楊雅伶
(Ya-Ling Yang)

P32 Association between Asymmetric Dimethylarginine and
In-stent Restenosis Tissue Characteristics Assessed by Optical
Coherence Tomography..... 黃偉杰
(Wei-Chieh Huang)

P33 The Benefits of Routine Use of Aggressive High-pressure
Pre-dilatation and Aggressive High-pressure Post-dilatation
with Noncompliant Balloons (Triple P Method) in Bioresorbable
Vascular Scaffolds Implantation 黃偉杰
(Wei-Chieh Huang)

P34 Paired Propensity Matched Study of Optical Coherence
Tomography-Guided PCI for STEMI Patients Compared to
Intravascular Ultrasound and Angiography-Guided Only PCI..... 黃偉杰
(Wei-Chieh Huang)

P35 Statin Reduces New-onset Atrial Fibrillation after Acute
Myocardial Infarction 曾建豪
(Chien-Hao Tseng)

- P36 Long-term Outcomes in Coronary Artery Bypass Graft Patients Using Internal Thoracic Artery with Ipsilateral Arteriovenous Shunt for Hemodialysis 吳詠斯
(Yung-Szu Wu)
- P37 HbA1C Correlates Subclinical Atherosclerosis in Non-diabetes 王維庭
(Wei-Ting Wang)
- P38 3 Year Clinical Outcomes of Optical Coherence Tomography (OCT) Guided Bioresorbable Vascular Scaffold (BVS) Implantation in a Real-world Population- A Single-center Experience 黃偉杰
(Wei-Chieh Huang)
- P39 Association Between Preoperative Nutritional Status and Clinical Outcomes of Patient with Coronary Artery Disease Undergoing Percutaneous Coronary Intervention 陳素真
(Su-Chan Che)
- P40 The Impact of Dipyridamle Added on Dual Antiplatelet Therapy on Stroke Prevention and Long-term Outcome in Patients after First Acute Myocardial Infarction 王美慈
(Mei-Tzu Wang)
- P41 Comparison of Long Term Outcome of Bioresorbable Scaffolds in Patients with Stable Angina and Acute Coronary Syndrome 楊澤軒
(Tse-Hsuan Yan)

BASIC SCIENCE

- P42 Cafestol Activates Nuclear Factor Erythroid-2 Related Factor 2 and Inhibits Urotensin II-induced Cardiomyocyte Hypertrophy 郝文瑞
(Wen-Rui Hao)
- P43 Effect of Calcitriol Attenuates Doxorubicin-induced Cardiac Dysfunction in Mice Model: Focus on Endothelial-to-mesenchymal Transition 蔡子賢
(Tzu-Hsien Tsai)

- P44 The Novel Physiological Role of Aldose Reductase in Platelet
Activation and Ischemic Stroke 張鈞監
(Chao-Chien Chang)
- P45 Impact of Chlorogenic Acid Derivatives on Diabetic
Atherosclerosis and its Molecular Mechanisms 詹貴川
(Kuei-Chuan Chan)
- P46 Inducible Pluripotent Stem Cell-Derived Mesenchymal Stem
Cell Therapy Effectively Protected Kidney from Acute Ischemia-Reperfusion
Injury 邵佩琳
(Pei-Lin Shao)
- P47 Circulating Long Non-coding RNAs were Associated Venous
Intimal Hyperplasia of Hemodialysis Vascular Accesses 羅健洺
(Jian-Ming Luo)
- P48 Hypoalbuminemia Promotes Angiogenesis in Human Vascular
Endothelial Cells 簡世杰
(Shih-Chieh Chien)
- P49 Modulation of Notch Signaling Alleviated Diabetic Macrovasculopathy in ex vivo
Model 潘國利
(Kuo-Li Pan)

HEART FAILURE

- P50 Incidental Congestive Heart Failure in Patients with Primary
Aldosteronism 黃偉杰
(Wei-Chieh Huang)
- P51 The Impact of Multidisciplinary Cardio-Oncology Program
on the Cardiovascular Outcomes in Breast Cancer Patients 張瑋婷
(Wei-Ting Chang)
- P52 Chronic High Percentage Right Ventricular Pacing Impaired
Global Myocardial Constructive Work 潘國利
(Kuo-Li Pan)

GENERAL CARDIOLOGY

- P53 Risk of Venous Thromboembolic Events in Asian Patients with Osteonecrosis of Femoral Head Undergoing Major Hip Surgery..... 宋沛勳
(Pei-Hsun Sung)
- P54 Risk of New-onset Atrial Fibrillation among Asian Patients with Chronic Hepatitis C Infection 宋沛勳
(Pei-Hsun Sung)
- P55 Hyperbaric Oxygen Therapy Enhanced Circulating Levels of Endothelial Progenitor Cells and Angiogenesis Biomarkers, Blood Flow in Ischemic Area in Patients with Peripheral Arterial Occlusive Disease 宋沛勳
(Pei-Hsun Sung)
- P56 Hyperuricemia and Left Ventricular Hypertrophy in Healthy Individuals..... 劉崢偉
(Cheng-Wei Liu)
- P57 Impact of Transcatheter Thrombectomy on Short-Term Survival in Atrial Fibrillation Versus Non-Atrial Fibrillation Related Acute Ischemic Stroke 王宇澄
(Yu-Chen Wang)
- P58 Comparison of Long-Term Mortality in Patients after First Acute Myocardial Infarction with or without Sepsis 劉恩劭
(En-Shao Liu)
- P59 Synergic Effect of Dipyridamole and Clopidogrel on Stroke Prevention and Long Term Outcomes in Aspirin Intolerance Patients with Acute Myocardial Infarction and Previous Stroke 王慈美
(Mei-Tzu Wang)

台北國際會議中心(TICC) 1F Room 103

**LUNCHEON SYMPOSIUM:
THE FUTURE OF CARDIAC/METABOLIC DISEASE MANAGEMENT
(AstraZeneca)**

- 12:15 Opening Remarks..... 謝宜璋
(I-Chang Hsieh)
Chair: 謝宜璋(I-Chang Hsieh)
- 12:20 Latest Evidence of DAPT Treatment in Acute Coronary Syndrome:
Insight and Future Management TBA
Chair: 王俊傑(Chun-Chieh Wang)
- 12:55 Effects of SGLT2i on the Vicious Circle: Diabetes,
Heart Failure, and Renal Dysfunction Subodh Verma
- 13:35 Panel Discussion and Closing Remarks 王俊傑
(Chun-Chieh Wang)

台北國際會議中心(TICC) 1F Room 105

**LUNCHEON SYMPOSIUM:
ANALYZING AND UNDERSTANDING THE HUMAN GENOME FOR
DRUG DEVELOPMENT IN CARDIOLOGY**

(Amgen)

- 12:15 Opening Remarks 褚柏顯
(Pao-Hsien Chu)
Chair: 褚柏顯(Pao-Hsien Chu)
- 12:20 Harnessing the Power of Human Genetics for Drug Discovery in
Cardiovascular Diseases Monica Florio
Chair: 黃瑞仁(Juey-Jen Hwang)
- 12:50 Beyond Statin: Insight from FOURIER Outcome Trial 宋思賢
(Shih-Hsien Sung)
- 13:20 Panel Discussion All
- 13:40 Closing Remarks 黃瑞仁
(Juey-Jen Hwang)

台北國際會議中心(TICC) 2F Room 201A

**LUNCHEON SYMPOSIUM:
DILEMMA IN STROKE AND BLEEDING PREVENTION IN AF
PATIENTS
(Daiichi Sankyo)**

- 12:00 Reception
- 12:05 Opening Remarks..... 黃群耀
(Chun-Yao Huang)
- Chair: 黃群耀(Chun-Yao Huang)**
- 12:10 All NOACs Are Not Created Equally: Meta-Analysis Trials Evaluating
Safety, Efficacy, Mortality and Pharmacoeconomic Differences
Among Currently Used NOACs.....Jan Steffel
- Chair: 蔡佳醜(Chia-Ti Tsai)**
- 12:45 Stroke Prevention in Asian AF patients – the Insight from
Taiwanese Expert..... 賀立婷
(Li-Ting Ho)
- 13:20 Panel Discussion.....All
- The application Guidelines/Results from studies in clinical practice
 - Holistic care for AF patients to lowering mortality
 - Other suggestions, if any
- 13:25 Closing Remarks 蔡佳醜
(Chia-Ti Tsai)

台北國際會議中心(TICC) 2F Room 201BC

**LUNCHEON SYMPOSIUM:
NEW INSIGHTS IN ANTICOAGULATION 3.0 ERA
(Boehringer-Ingelheim)**

12:15 Opening Remarks..... 黃瑞仁
(Juey-Jen Hwang)

Chair: 黃瑞仁(Juey-Jen Hwang)

12:20 Optimized Stroke Management in AF Patients..... 蔡力凱
(Li-Kai Tsai)

12:50 Translating Trials to Clinical Practice: Is Dual Therapy the
New Standard of Care for AF Patients Post-PCI? 林宗憲
(Tsung-Hsien Lin)

Chair: 邱冠明(Kuan-Ming Chiu)

13:20 Panel DiscussionAll

13:40 Closing Remarks 邱冠明
(Kuan-Ming Chiu)

台北國際會議中心(TICC) 2F Room 201DE

**LUNCHEON SYMPOSIUM:
AF PATIENT WITH CONCOMITANT HEART CONDITIONS
(Pfizer)**

- 12:15 Opening Remarks..... 程文俊
(Wen-Jin Cherng)
- Chair: 程文俊(Wen-Jin Cherng)**
- 12:20 AF Patients with Concomitant Heart Conditions:
What Have We Learnt So Far? 江晨恩
(Chern-En Chiang)
- Chair: 李貽恒(Yi-Heng Li)**
- 13:00 AF Patients with Concomitant Heart Conditions:
From Clinical Trials to Clinical Practice 詹世鴻
(Shih-Hung Chan)
- 13:30 Panel Discussion All
- 13:40 Closing Remarks 李貽恒
(Yi-Heng Li)

台北國際會議中心(TICC) 2F Room 201F

**LUNCHEON SYMPOSIUM:
INNOVATION OF THE CARDIAC AND VASCULAR PRODUCT
PORTFOLIO, FURTHER TOGETHER
(Medtronic)**

- 12:15 Opening Remarks..... 李文領
(Wen-Lieng Lee)
- Chair: 李文領(Wen-Lieng Lee)**
- 12:17 What Are the Risk Factors of Sudden Cardiac Arrest? 葉冠宏
(Kuan-Hung Yeh)
- 12:37 Tackling Calcified SFA/BTK Lesion with DAART 曾維功
(Wei-Kung Tseng)
- 12:57 Onyx in CTO 張其任
(Chi-Jen Chang)
- 13:00 **Chair: 王宗道(Tzung-Dau Wang)**
- 13:02 The Emerging indications for Renal Denervation 李應湘
(Ying-Hsiang Lee)
- 13:22 Panel Discussion(for Onyx & RDN)
Discussants:
李文領(Wen-Lieng Lee)、張其任(Chi-Jen Chang)、李應湘(Ying-Hsiang Lee)
- 13:43 Closing Remarks 王宗道
(Tzung-Dau Wang)

台北國際會議中心(TICC) 3F South Foyer
**LUNCHEON SYMPOSIUM:
RIGHT STENT FOR THE RIGHT PATIENT
(Biosensors)**

Chair: Paul Ong、黃啟宏(Chi-Hung Huang)

- 12:15 Opening Remarks.....盧澤民
(Tse-Min Lu)
- 12:20 Identification of HBR Patients in Asia: The Asian ConsensusPaul Ong
- 12:30 Leaders & Leaders Fee II Update 郭風裕
(Feng-Yu Kuo)
- 12:45 Case Presentation — HBR..... 王奇彥
(Chi-Yuan Wang)
- 12:55 Leaders ACS Subgroup Analysis and Asia STEMI Registry.Frankie Tam
- 13:10 Case Presentation — ACS..... 李政翰
(Cheng-Han Lee)
- 13:20 The New Generation of Abluminal Biodegradable Polymer DES,
BioMatrix – Alpha and the Real World Experience Lam Ho
- Panelists: 陳清埤、方慶章、盧澤民、葉漢根、蔡政廷**
- 13:35 Q & A..... Panelists & All
- 13:43 Closing Remarks 葉漢根
(Hon-Kan Yip)

台北國際會議中心(TICC) 2F Room 201BC

EVENING SYMPOSIUM:

(Bayer)

17:45 Opening Remarks..... 溫明賢
(Ming-Shien Wen)

Chair: 溫明賢(Ming-Shien Wen)

17:50 Prolonged Cardiac Monitoring for Detection of Atrial Fibrillation 詹益欣
(Yi-Hsin Chan)

Chair: 陳適安(Shih-Ann Chen)

18:30 Novel Oral Anticoagulation-Lessons from Ten Years of Use Sylvia Haas

Chair: 陳適安(Shih-Ann Chen)

18:55 Panel Discussion.....All

19:10 Closing Remarks 陳適安
(Shih-Ann Chen)

台北國際會議中心(TICC) 2F Room 201DE

**EVENING SYMPOSIUM:
PIONEER-HF, THE PARADIGM SHIFT OF HFREF TREATMENT
(Novartis)**

17:45 Opening Remarks..... 陳志成
(Zhih-Cherng Chen)

Chair: 陳志成(Zhih-Cherng Chen)

17:50 ARNI:The Post-PIONEER World..... 林宗憲
(Tsung-Hsien Lin)

Chair: 黃金隆(Jin-Long Huang)

18:10 Reversible LBBB after ARNI Treatment in Severe HF Patients..... 林柏霖
(Po-Lin Lin)

Chair:

18:30 The Role of ARNI in HF Treatment:Real World Evidence of SHH.TMU 劉如濟
(Ju-Chi Liu)

18:50 Panel Discussion.....All

19:10 Closing Remarks TBA

台北國際會議中心(TICC) 1F Room 103

**LUNCHEON SYMPOSIUM:
HOLISTIC CARE OF ACS PATIENTS IN ASIAN
(SANOFI)**

11:30 Opening Remarks..... 吳彥雯
(Yen-Wen Wu)

Chair: 吳彥雯(Yen-Wen Wu)

11:35 New Paradigm in Post-ACS Management — Is Antiplatelets Switch Feasible in East Asian ACS Patients?..... 郭風裕
(Feng-Yu Kuo)

12:05 Lipid Management in ACS Patients: Should We Go Lower Faster?..... 任勗龍
(Hsu-Lung Jen)

Chair: 殷偉賢(Wei-Hsian Yin)

12:35 Panel Discussion..... All

12:55 Closing Remarks 殷偉賢
(Wei-Hsian Yin)

台北國際會議中心(TICC) 2F Room 201A

**LUNCHEON SYMPOSIUM:
REDEFINING DIABETIC MANAGEMENT — TIME FOR
PARADIGM SHIFT**

(Tanabe)

11:30 Opening Remarks..... 葉森洲
(San-Jou Yeh)

Chair: 葉森洲(San-Jou Yeh)

11:40 SGLT2i and CHF : Based on CANDLER Trial Result..... Masataka Sata

12:15 Redefining Diabetic Management Based on New Prospective
Trial Result (CREDENCE): Time for Paradigm Shift.....王治元
(Chih-Yuan Wang)

Chair: 許惠恒(Wayne Huey-Herng Sheu)

12:40 Panel Discussion.....All

12:55 Closing Remarks 許惠恒
(Wayne Huey-Herng Sheu)

台北國際會議中心(TICC) 2F Room 201BC

LUNCHEON SYMPOSIUM:

(Boehringer-Ingelheim)

- 11:30 Opening Remarks..... 林宗憲
(Tsung-Hsien Lin)
- Chair: 林宗憲(Tsung-Hsien Lin)**
- 11:40 New Era of Caring Cardiovascular Disease in
Diabetes PatientsKausik Ray
- 12:10 Logistic and Strategy Thinking of Combination Therapy in
Glycemic Control TBA
()
- 12:40 Panel Discussion.....All
- 12:55 Closing Remarks 林宗憲
(Tsung-Hsien Lin)

台北國際會議中心(TICC) 2F Room 201DE

**LUNCHEON SYMPOSIUM:
BETA-BLOCKERS FOR HTN MANAGEMENT: FROM THE LATEST
GUIDELINE TO REAL WORLD ASIAN EXPERIENCE
(Menarini)**

11:30 Opening Remarks..... 黃瑞仁
(Juey-Jen Hwang)

Chair: 黃瑞仁(Juey-Jen Hwang)

11:35 A Deep Look at the ESH/ESC Guideline Update :
Target, Treatment Strategy, and the Role of Beta-blockers.....Giuseppe Mancia

12:05 Redefining Beta-Blocker Use in Taiwan Hypertension Management :
From TSH/TSOC Guideline to Local Experience on the New
Treatment Choice, Nebivololl 王宗道
(Tzung-Dau Wang)

Chair:

12:30 Panel Discussion.....All

12:55 Closing Remarks 鄭書孟
(Shu-Meng Cheng)

台北國際會議中心(TICC) 2F Room 201F

**LUNCHEON SYMPOSIUM:
THINK BEYOND STATIN MONOTHERAPY — MANAGING LDL
CHOLESTEROL WITH EZETIMIBE COMBINATION TREATMENT
(MSD)**

11:30 Opening Remarks..... 陳文鍾
(Wen-Jone Chen)

Chair: 陳文鍾(Wen-Jone Chen)

11:35 Perspective from the Latest Cholesterol Treatment Guideline —
Filling Gaps and Expanding Opportunities..... 宋沛勳
(Pei-Hsun Sung)

12:05 Discussion I All

Chair: 吳彥雯(Yen-Wen Wu)

12:15 Think Beyond Statin Monotherapy — Managing LDL Cholesterol with
Ezetimibe Combination Treatment..... 謝宜璋
(I-Chang Hsieh)

12:45 Discussion II All

12:55 Closing Remarks 吳彥雯
(Yen-Wen Wu)

個人簡歷

基本資料

姓名	許志新	出生地	台灣台南
住址	台南市勝利路 138 號國立成功大學附設醫院心肺室		
現職	國立成功大學附設醫院內科部主治醫師暨臨床副教授		

學歷

私立中國醫藥學院醫學系畢業

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經歷

國立成功大學附設醫院內科部主治醫師(2004-)

美國 UCLA 醫學中心心臟移植及心衰竭臨床研究員 (2005)

國立成功大學附設醫院心衰竭暨心臟移植小組醫師(2005-)

國立成功大學醫學院肺高壓團隊召集人(2005-)

國立成功大學醫學院臨床講師 (2006-2012)

美國芝加哥大學肺高壓中心訪問學者(2010-2011)

國際心胸外移植學會肺高壓工作小組委員(2011-)

國立成功大學醫學院臨床助理教授 (2012-2017)

中華民國心臟學會肺高壓工作小組委員(2012-2016, 2018-)

中華民國心臟學會急重症委員會委員(2012-)

中華民國 ACLS 聯委會委員(2014-)

國立成功大學醫學院臨床副教授 (2017-)

Dr Yeoh Boon Seng (楊汶勝), MD (USM), MSc (Medical Physiology) is a young Malaysian doctor working in the University of Malaya Medical Centre. Dr Yeoh has an academic interest in both basic and clinical cardiovascular physiology. His laboratory research in the Universiti Sains Malaysia on stingless bee propolis won the Young Investigator Award in the National Heart Association of Malaysia (NHAM) Annual Scientific Meeting 2018. Currently, he is engaging in collaborative research with the Oxford Centre for Clinical Magnetic Resonance (OCMR) and the National Heart Institute (IJN).

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現職

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Curriculum Vitae

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1. Current position

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Division of Cardiology, Department of Medicine, Heart Vascular Stroke Institute, Samsung Medical Center, Sungkyunkwan University School of Medicine, Republic of Korea

2. Academic degrees

2003 - 2009 Graduate (M.D.), Sungkyunkwan University School of Medicine, Seoul, Korea

2012 - 2014 Master's degree, Sungkyunkwan University School of Medicine, Seoul, Korea

3. Professional training

2009 - 2010 Internship, Samsung Medical Center

2010 - 2014 Residency, Internal Medicine, Samsung Medical Center

2014 - 2017 Military doctor for a military service

2017 - Present Fellowship, Division of cardiology, Department of Medicine, Heart Vascular Stroke Institute, Samsung Medical Center, Sungkyunkwan School of Medicine

4. Licenses

Medical Doctor (No. 101058)

Diplomate of Korean Board of Internal Medicine (No. 14542)

5. Publications

(1) Papers in SCI-journals as the first author

Choi KH, Park TK, Kim J, Ko YG, Yu CW, Yoon CH, Lee JH, Min PK, Koh YS, Chae IH, Choi D, Choi SH; K-VIS Investigators. Sex Differences in Outcomes Following Endovascular Treatment for Symptomatic Peripheral Artery Disease: An Analysis From the K- VIS ELLA Registry. **J Am Heart Assoc.** 2019 Jan 22;8(2):e010849. doi: 10.1161/JAHA.118.010849. **(First author)**

Choi KH, Choi JO, Jeon ES, Lee GY, Choi DJ, Lee HY, Kim JJ, Chae SC, Baek SH, Kang SM, Yoo BS, Kim KH, Cho MC, Park HY, Oh BH. Guideline-Directed Medical Therapy for Patients With Heart Failure With Midrange Ejection Fraction: A Patient-Pooled Analysis From the Kor HF and Kor AHF Registries. **J Am Heart Assoc.** 2018 Nov 6;7(21):e009806. doi: 10.1161/JAHA.118.009806. **(First author)**

Lee JM, **Choi KH**, Park J, Hwang D, Rhee TM, Kim J, Park J, Kim HY, Jung HW, Cho YK, Yoon HJ, Song YB, Hahn JY, Nam CW, Shin ES, Doh JH, Hur SH, Koo BK. Physiological and Clinical Assessment of Resting Physiological Indexes. **Circulation.** 2019 Feb 12;139(7):889-900. doi: 10.1161/CIRCULATIONAHA.118.037021. 2019 Feb 12;139(7):e41. **(Co-first author)**

Choi KH, Han S, Lee GY, Choi JO, Jeon ES, Lee HY, Lee SE, Kim JJ, Chae SC, Baek SH, Kang SM, Choi DJ, Yoo BS, Kim KH, Cho MC, Park HY, Oh BH. Prognostic significance of left axis deviation in acute heart failure patients with left bundle branch block: An analysis from the Korean Acute Heart Failure (KorAHF) registry. **Korean Circ J**. 2018 Nov;48(11):1002-1011. doi: 10.4070/kcj.2018.0048. **(First Author)**

Choi KH, Lee GY, Choi JO, Jeon ES, Lee HY, Lee SE, Kim JJ, Chae SC, Baek SH, Kang SM, Choi DJ, Yoo BS, Kim KH, Cho MC, Park HY, Oh BH. The Mortality Benefit of Carvedilol versus Bisoprolol in Patients with Heart Failure with Reduced Ejection Fraction. **Korean J Intern Med**. 2018 Oct 16. doi: 10.3904/kjim.2018.009. [Epub ahead of print]. **(First Author)**

Choi KH, Lee JM, Kim HK, Kim J, Park J, Hwang D, Rhee TM, Park TK, Yang JH, Song YB, Shin ES, Nam CW, Doh JH, Hahn JY, Choi JH, Choi SH, Koo BK, Gwon HC. Fractional Flow Reserve and Instantaneous Wave-Free Ratio for Non-Culprit Stenosis in Patients with Acute Myocardial Infarction. **JACC Cardiovasc Interv**. 2018 Sep 24;11(18):1848-1858. doi: 10.1016/j.jcin.2018.06.045. **(First author)**

Lee JM, **Choi KH**, Hwang D, Park J, Jung JH, Kim HY, Jung HW, Cho YK, Yoon HJ, Song YB, Hahn JY, Doh JH, Nam CW, Shin ES, Hur SH, Koo BK. Prognostic Implication of Thermodilution Coronary Flow Reserve in Patients Undergoing Fractional Flow Reserve Measurement. **JACC Cardiovasc Interv**. 2018 Aug 13;11(15):1423-1433. doi: 10.1016/j.jcin.2018.05.005. **(Co-first author)**

Choi KH, Lee JM, Park I, Kim J, Rhee TM, Hwang D, Park J, Park TK, Yang JH, Song YB, Hahn JY, Jeong DS, Cho YH, Kim WS, Sung K, Jang MJ, Sung JD, Choi JH, Choi SH, Koo BK, Lee YT, Kim EK, Chang SA, Park SJ, Choi JO, Lee SC, Park SW, Cho YS, Choi JY, Gwon HC, Oh JK. Comparison of long-term clinical outcomes between revascularization versus medical treatment in patients with silent myocardial ischemia. **Int J Cardiol**. 2018 Aug 3. pii: S0167-5273(18)32829-8. doi:10.1016/j.ijcard.2018.08.006. **(First Author)**

Choi KH, Yang JH, Park TK, Lee JM, Song YB, Hahn JY, Choi SH, Choi JH, Cho YH, Sung K, Carriere K, Ahn J, Gwon HC. Risk prediction model of in-hospital mortality in patients with myocardial infarction treated with venoarterial extracorporeal membrane oxygenation. **Rev Esp Cardiol (Engl Ed)**. 2018 Jul 20. pii: S1885-5857(18)30250-0. doi: 10.1016/j.rec.2018.06.010. **(First Author)**

Choi KH, Lee GY, Choi JO, Jeon ES, Lee HY, Cho HJ, Lee SE, Kim MS, Kim JJ, Hwang KK, Chae SC, Baek SH, Kang SM, Choi DJ, Yoo BS, Kim KH, Park HY, Cho MC, Oh BH. Effects of angiotensin receptor blocker at discharge in patients with heart failure with reduced ejection fraction: Korean Acute Heart Failure (KorAHF) registry. **Int J Cardiol**. 2018 Apr 15;257:168-176. doi: 10.1016/j.ijcard.2017.12.002. **(First author)**

Choi KH, Song YB, Jeong JO, Park TK, Lee JM, Yang JH, Hahn JY, Choi SH, Choi JH, Lee SH, Jeong MH, Koo BK, Kim HS, Yu CW, Rha SW, Jang Y, Yoon JH, Oh JH, Park JS, Gwon HC. Treatment Strategy for STEMI With Bifurcation Culprit Lesion Undergoing Primary PCI: The COBIS II Registry. **Rev Esp Cardiol (Engl Ed)**. 2018 Oct;71(10):811-819. doi: 10.1016/j.rec.2018.01.002. Epub 2018 Feb 21. **(First author)**

Choi KH, Lee JM, Koo BK, Nam CW, Shin ES, Doh JH, Rhee TM, Hwang D, Park J, Zhang J, Kim KJ, Hu X, Wang J, Ye F, Chen S, Yang J, Chen J, Tanaka N, Yokoi H, Matsuo H, Takashima H, Shiono Y, Akasaka T. Prognostic Implication of Functional Incomplete Revascularization and Residual Functional SYNTAX Score in Patients With Coronary Artery Disease. **JACC Cardiovasc Interv**. 2018 Feb 12;11(3):237-245. doi:

Curriculum Vitae

Name: Liang-Ting Chiang (江亮霆)

Sex: male

Education

1998~2005 Taiwan University Medical College

Training and Working Experiences:

2007~2010 Department of Internal Medicine, National Taiwan University Hospital,
Resident

2010~2012 Cardiovascular Division, National Taiwan University Hospital,
Fellowship

2012~August 2017 Division of Cardiology, Department of Internal Medicine,
National Taiwan University Hospital Yun-Lin Branch, Visiting Staff

May 2014 ~ July 2017 Vice Director of Department of Internal Medicine,
National Taiwan University Hospital Yun-Lin Branch

Sep 2017 ~ Cardiovascular center, Fu Jen Catholic University Hospital, Visiting
Staff

Professional standing / Certifications

2005 Board of Physician

2010 Board of Internal Medicine

2012 Board of Cardiology

2013 Board of Interventional Cardiology

2016 Certification of Carotid stenting (government regulation)

2016 Certification of Rotablation (government regulation)

Others

2015 TCTAP Best case presenter

2016 TCTAP Best case presenter

2017 TCTAP Best case presenter

Publication

1. Chiang LT, Yao M, Chen CH. Development of Development of immunity against hepatitis B virus after donor lymphocyte infusion in a peripheral blood stem cell transplantation recipient with chronic hepatitis B. *Infection*. 2011, Aug; 39(4): 363-5
2. Wu CK, Huang YT, Lee JK, Chiang LT, Chiang FT, Huang SW, Lin JL, Tseng CD, Chen TH, Tsai CT. Cardiac myosin binding protein C and MAP-kinase activating death domain-containing gene polymorphisms and diastolic heart failure. *Plos One*. 2012;7(4):e35242

Yi-Heng Li (李貽恒), MD, PhD, FACC, FESC

Yi-Heng Li, MD, PhD, is a senior attending physician of the Division of Cardiology at National Cheng Kung University Hospital in Tainan, Taiwan, where he is also a professor in the Department of Internal Medicine in the University's College of Medicine. Dr. Li earned his medical degree from Kaohsiung Medical University in Kaohsiung, Taiwan, and his PhD from the Graduate Institute of Basic Medical Science at National Cheng Kung University. He received cardiology fellowship training in the National Taiwan University Hospital in Taipei, Taiwan and completed a research fellowship in the Department of Cardiovascular Sciences and the DeBakey Heart Center at Baylor College of Medicine in Houston, Texas, USA. Dr. Li is a fellow of the European Society of Cardiology and the American College of Cardiology. He holds memberships in a range of medical societies, including the Taiwan Society of Cardiovascular Interventions, the Taiwan Society of Cardiology, and the Taiwan Society of Internal Medicine. He is the recipient of several honors, including the First Prize of Research Abstract Award from the Taiwan Society of Lipids and Atherosclerosis, and the Special Grant for Excellent Research bestowed at the Annual Scientific Meeting of the Japanese Atherosclerosis Society.

His research interests include the management of acute coronary syndromes and atherothrombosis. Dr. Li has published more than 160 research papers in such medical journals as the *Journal of the American College of Cardiology*, *Cardiovascular Research*, *European Heart Journal*, *Chest*, *American Journal of Cardiology*, and *Thrombosis and Haemostasis*. He has presented more than 150 abstracts at international meetings, including the Annual Scientific Sessions of the American Heart Association, the American College of Cardiology, and the European Society of Cardiology. He has been the local principal and co-investigator of many international clinical trials. He is the major organizer of the writing group for the "Guidelines of the Taiwan Society of Cardiology for the Management of ST-segment Elevation Myocardial Infarction", "2018 Guidelines of the Taiwan Society of Cardiology, Taiwan Society of Emergency Medicine and Taiwan Society of Cardiovascular Interventions for the Management of Non ST-segment Elevation Acute Coronary Syndrome" and "Taiwan Lipid Guideline for High Risk Patients".

CURRICULUM VITAE

Hung-Ju Lin, MD

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University Education

- 1992-1999 Bachelor of Medicine, Department of Medicine, College of Medicine, National Taiwan University
- 2009-2011 M.S., Graduate Institute of Biomedical Electronic and Bioinformatics, College of Electrical Engineering and Computer Science, National Taiwan University
- 2011-Date PhD candidate. Institute of Epidemiology and Preventive Medicine, National Taiwan University

Professional Education and Certifications

- 2004-2006 Cardiology Fellowship in Section of Cardiology & Chief Resident in Department of Internal Medicine, National Taiwan University Hospital
- 2006~ Attending physician in Department of Internal Medicine & Health Management Center, National Taiwan University Hospital

Current Appointments

- Attending physician, Department of Internal Medicine (Cardiology Section) & Health Management Center, National Taiwan University Hospital
- Clinical Instructor, National Taiwan University Hospital, National Taiwan University
- Secretary General, the Taiwan Hypertension Society

Professional Affiliations

- 1999~ General License of Physician
- 2005~ License of Internal Medicine Doctor
- 2006~ License of Cardiology Board Specialist

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學歷：中國醫藥大學 1980-1987

國立台灣大學管理學院高階管理碩士 2013-2016

專業經歷及訓練：

1989-1992 馬偕醫院內科住院醫師

1992-1994 馬偕紀念醫院心臟內科總醫師

1994-2000 馬偕紀念醫院心臟內科主治醫師

1997-2004 馬偕紀念醫院淡水內科加護病房主任

2005~2006 美國史丹福大學醫學中心研究員(幹細胞心肌再生研究)

現任：1.馬偕紀念醫院 醫務部暨淡水社區醫學中心主任(2007-2019)

2.馬偕紀念醫院 心臟內科資深主治醫師

3.中華民國心臟學會理事，財務委員會主委

4.台灣介入性心臟血管醫學會監事，甄審委員會副主委

5.台灣老人急重症醫學會理事暨資源統籌委員會主委

6.臺灣健康醫院學會監事

7.新北市醫師公會監事

8.新北市醫師公會醫療爭議委員會委員

9.新北市醫誌編輯顧問

10.新北市政府衛生局醫事審議委員會委員

11.衛生福利部全民健康保險爭議審議會審查專家

12.衛生福利部國民健康署高齡友善健康照護機構認證訪查委員

13.衛生福利部國民健康署健康醫院認證訪查委員

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15.台灣老人急重症醫學會甄審委員會委員

16.財團法人台灣老人急重症基金會人事財務委員會委員

17.財團法人中華民國心臟基金會董事

18.馬偕醫學院臨床教授

19.教育部部定助理教授

20.臺灣基督長老教會雙連教會長老

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Medical Certification :1993 內科專科醫師 1994 心臟內科專科醫師 1998

內科專科指導醫師 1999 中華民國重症醫學會專科醫師 2000 心臟內科專

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2007 醫用超音波學會 心血管系統專業醫師 2008 中華民國重症醫學會專

科指導醫師 2012 台灣介入心臟血管專科醫師

Curriculum Vitae

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Present Appointment

1. Vice-superintendent, Chang Bing Show Chwan Memorial Hospital, 2017~current
2. Director, Department of Nuclear Medicine, Chang Bing Show Chwan Memorial Hospital, 2007~current
3. Associate Professor, Department of Biomedical Imaging and Radiological Science, China Medical University, 2016-current

Academic Background:

1. PET/CT program of UCLA Amhanson Biological Imaging Clinic, Los Angeles, USA, 2006
2. Resident, Taichung Veterans General Hospital, 1998~2003
3. Kaohsiung Medical University, 1989~1996

Honor and Awards:

1. Winner of excellent paper award of Ann Nucl Med Sci 2002, 2003
2. Winner of Asia and Oceania Distinguished Young Investigator Award, 46th annual meeting of Japanese Society of Nuclear Medicine, 2006
3. Best oral presentation in the annual meeting of Taiwan Nuclear Medicine Society, 2010
4. Winner of Best Clinical Abstract, American Society of Nuclear Cardiology 22nd Annual Scientific Session, 2017

Professional Membership and Title:

1. Board Member, Executive Committee, Society of Nuclear Medicine, Taiwan, ROC, 2014-2018
2. Member of American Society of Nuclear Cardiology
3. Member of Society of Nuclear Medicine (USA)
4. Secretary General, Society of Nuclear Medicine, Taiwan, ROC, 2011-2014
5. Chair, Cardiology Committee, Society of Nuclear Medicine, Taiwan, ROC, 2014-2018
6. Board, member, the Asia Oceania Federation of Nuclear Medicine and Biology, 2018-current

Curriculum Vitae

- 一、姓名：徐迺維
- 二、單位：宜蘭縣政府衛生局
- 三、職稱：局長
- 四、聯絡地址：宜蘭縣宜蘭市女中路2段287號
- 五、學歷：
 1. 國立陽明大學醫學院醫學士 (1981年8月~1988年6月)
 2. 美國哈佛大學公共衛生學院公共衛生碩士(醫院管理) (1999年9月~2000年6月)
 3. 國立陽明大學醫學院公共衛生研究所公共衛生學博士 (2008年9月~2015年1月)
- 六、經歷：
 1. 國立陽明大學醫學系部定兼任助理教授 (2017年2月起迄今)
 2. 宜蘭縣政府衛生局局長 (2019年1月起迄今)
 3. 中華民國心臟學會理事 (2016年5月起迄今)
 4. 中華民國重症醫學會理事 (2013年10月起迄今)
 5. 國立陽明大學附設醫院社區醫學中心主任 (2016年1月起至2019年1月)
 6. 國立陽明大學附設醫院副院長 (2009年1月起至2015年12月)
 7. 國立陽明大學附設醫院代理副院長 (2008年1月至2008年12月)
 8. 衛生署宜蘭醫院副院長 (2007年5月至2007年12月)
 9. 衛生署宜蘭醫院急診醫學科主任 (2007年2月至2007年5月)
 10. 衛生署宜蘭醫院內科主任 (2005年8月至2007年2月)
 11. 臺北榮民總醫院內科部心臟內科主治醫師 (1997年4月至2005年8月)
 12. 臺北榮民總醫院內科部心臟內科資深住院醫師 (1996年8月至1997年3月)
 13. 臺北榮民總醫院內科部住院總醫師 (1995年8月至1996年7月)
 14. 臺北榮民總醫院內科部心臟內科資深住院醫師 (1993年8月至1995年7月)
 15. 臺北榮民總醫院內科部住院醫師 (1990年8月至1993年7月)
 16. 埔里榮民醫院醫師 (1988年8月至1990年7月)
 17. 國立陽明大學醫學院講師(兼任) (1998年6月至2017年1月)
 18. 中華民國國立陽明大學校友總會理事長 (2014年11月至2016年11月)
- 七、專業證照：
 1. 醫師證書：醫字第017601號
 2. 中華民國內科專科醫師證書：醫字第003811號
 3. 中華民國心臟血管內科專科醫師證書：(84)中心專醫字第S0567號
 4. 中華民國心臟學會心臟血管內科專科訓練指導醫師證書：(91)中心專指醫字第024號
 5. 臺灣重症醫學專科醫師證書：重聯專字第01879號
- 八、近五年研究計畫：
 1. 「健康活樂宜蘭市」-宜蘭社區醫學服務計畫第二期---(第一年計畫)年長慢性疾病患者滿意度之機轉研究 主持人 2014/1~2014/12
陽明大學附設醫院
 2. 老人「長睡眠時數」相關因子之社區研究 (103-2314-B-010-007-) 共同主持人 2014/8/1~2015/7/31 科技部

3. 「健康活樂宜蘭市」-宜蘭社區醫學服務計畫第二期---(第二年計畫)年長慢性疾病患者滿意度之機轉研究
主持人 2015/1~2015/12
陽明大學附設醫院
4. 老人「長睡眠時數」相關因子之社區研究 (104-2314-B-010 -009 -) 共同
主持人 2015/8/1 ~2016/7/31 科技部
5. 「健康活樂宜蘭市」-宜蘭社區醫學服務計畫第二期---年長慢性疾病患者
滿意度之機轉研究(第三年計畫) 主持人 2016/1~2016/12 陽明大學附
設醫院
6. 痛風患者之共病症長期轉移結構發展探討:比較宜蘭縣與全國資料之對比
共同主持人2016/1 ~2016/12 陽明大學附設醫院
7. 「健康活樂宜蘭市」-宜蘭社區醫學服務計畫第三期---影響年長慢性疾
病患者存活率及生活品質之追蹤研究(第一年計畫) 主持人
2017/1~2017/12 陽明大學附設醫院
8. 社區老人「長睡眠時數」與亞臨床生理指標相關性之追蹤研究 (106-2314-
B-010 -023 -) 共同主持人 2017/8~2018/7 科技部
9. 「健康活樂宜蘭市」-宜蘭社區醫學服務計畫第三期---影響年長慢性疾
病患者存活率及生活品質之追蹤研究(第二年計畫) 主持人
2018/1~2018/12 陽明大學附設醫院
10. 社區老人「長睡眠時數」與亞臨床生理指標相關性之追蹤研究 共同主持
人 2018/8~ 2019/7 科技部 進行中

張正成 Jeng-Sheng Chang 簡歷

學歷

美國芝加哥伊利諾大學公衛學院流行病學碩士班
中國醫藥學院醫學系

現任

中國醫藥大學兒童醫院小兒心臟科主任
中國醫藥大學兒童醫院小兒加護病房主任
中國醫藥大學部定副教授
中國醫藥大學兒童醫院兒童急救加護委員會總幹事
衛生福利部醫院醫療服務審查醫藥專家審查委員
中華民國心臟學會小兒心臟學委員
兒童心臟暨結構心臟學委員會委員
台灣介入性心臟血管醫學會委員
台灣兒童胸腔暨重症醫學會重症醫療委員會
台灣兒童胸腔醫學會兒童胸腔專科指導醫師
中華民國關懷心臟病童協會醫療顧問
門諾醫院董事會董事

經歷

美國波士頓兒童醫院心臟科研究醫師
台灣大學醫學院附設醫院小兒科心臟研究醫師
中國醫藥大學附設醫院兒科部主治醫師
中國醫藥大學附設醫院兒科部主任
中國醫藥大學附設醫院病房管理委員會委員
中國醫藥大學附設醫院藥事委員會委員
中國醫藥大學兒童醫院加護病房管理委員會委員
台灣兒科醫學會兒童重症次專科委員會委員

台灣兒科醫學會兒童急診次專科委員會委員

台灣兒童心臟學會理事

財團法人門諾醫院董事會董事

專長

小兒心臟病學：介入性心導管術、先天性心臟病手術照護、川崎病
兒童重症專科、兒童急診科、兒童胸腔科、ECMO 藥物、胎兒超音
波

榮譽事蹟

中國醫藥大學附設醫院年度優良醫師

1911-2005 中國醫科大學附屬醫院年度榮譽博士

2015-2017 衛福部重難症品質提升計畫-兒童心臟科-計畫主持人

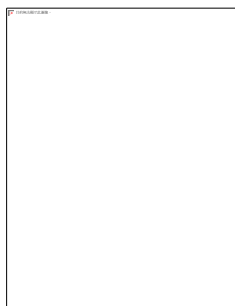
2018 年台中市醫師公會醫療奉獻獎

2018 年度年會論文獎-中華民國重症醫學會第七屆第三次會員大會創
會二十週年

聯合學術年會

CURRICULUM VITAE _ Dr. Heng-Chia Chang

Updated: Feb.22, 2019



Dr. Heng-Chia Chang (Also known as Hern-Jia Chang)

Attending Physician of Cardiology, Vice Superintendent Taipei Tzu-Chi Hospital, Buddhist Tzu Chi Medical Foundation

Clinical Associate Professor, Medical School, Tzu Chi University

Board of Directors, Taiwan Society of Critical Care Medicine (2015-2017)

Board of Directors, Taiwan Society of Interventional Cardiology (2016-2018)

Sex: Male

Date of Birth: March 16, 1960

Place of Birth: Yin-Lin, Taiwan

Home Address and Telephone No.:

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Language: Mandarin, Taiwanese, and English

Marital Status: Married

Spouse: Eileen Wang

Education:

Sep. 1978 -Jun. 1985: Kao-Hsiung Medical University, Kao-Hsiung, Taiwan

Taiwanese I.D. No.: P120339694

Postgraduate Training:

Jun. 1984-May 1985	Internship	Kao-Hsiung Medical University Kao-Hsiung, Taiwan
July 1985-May 1987	Naval Surgeon	Naval General Hospital, Kao-Hsiung, Taiwan
Jul. 1987-Jun. 1990	Residency in Internal Medicine	Chang Gung Memorial Hospital, Lin-Ko Medical Center, Taiwan
Jul. 1990-Jun. 1992	Fellowship in Cardiology	Chang Gung Memorial Hospital, Lin-Ko Medical Center, Taiwan

License and Certification

Dec. 9, 1985	License of Doctor, Taiwan (No.013369)
Mar. 10, 1987	Certification of ECFMG, USA (No. 414-045-5)
June 4, 1991	Certification of Internal Medicine Specialist, Taiwan (No.2871)
Oct. 1992	Certification of Cardiology Specialist, Taiwan Society of Cardiology (No. S463)
Sep. 1995	Certification of Specialist of Emergency and Critical Care Medicine, Taiwan (No. 0981)
Oct.1999	Certification of Specialist of Taiwan Society of Critical Care Medicine(No. 0665)

Academic and Hospital Appointment:

Jul. 1992- Apr. 2005	Attending Cardiologist	Chang Gung Memorial Hospital, Lin-Ko Medical Center, Taiwan
Jul. 1995 – Jun. 2005	Clinical Assistant Professor	Chang Gung Memorial Hospital, Lin-Ko Medical Center, Taiwan
Jan. 2005 – Apr. 2005	Director, Coronary Intensive Care Unit	Chang Gung Memorial Hospital, Lin-Ko Medical Center, Taiwan
Apr. 2005 – Jul. 2012	Director, Cath Lab and Interventional Cardiology	Taipei Tzu Chi Hospital, Taiwan
Jul. 2007 – Present	Clinical Associate Professor	Medical School, Tzu Chi University, Hualien, Taiwan
Jul. 2012 – Jul.2013	Director, Cardiology Section of Internal Medicine	Taipei Tzu Chi Hospital, Taiwan
Jul. 2012 – Dec. 2017	Director, Center of Quality Management	Taipei Tzu-Chi Hospital, Taiwan
Jul. 2013 – Present	Vice Superintendent	Taipei Tzu-Chi Hospital, Taiwan

Professional Affiliation with Medical Organizations:

1. Board of Directors and Instructor, Taiwan Society of Crical Care Medicine
2. Member of Formosan Medical Association
3. Member of Taiwan Society of Internal Medicine
4. Member and instructor of Taiwan Society of Cardiology

5. Member and instructor of the Society of Ultrasound in Medicine of Taiwan
6. Board of Director of Taiwan Society of Cardiovascular Interventions

Research Interest:

Emergency and critical cardiology
Cardiac Catheterization (Diagnostic and Interventional Cardiology)
Clinical Cardiology

Clinical Experience

1. Interventional cardiologist (coronary, carotid, renal, peripheral and valvuloplasty) since 1992
2. Critical Care Medicine since 1991

Horner and Awards

1. Best Naval Surgeon Award, 1987.
2. Outstanding Military Service Award, 1987
3. Best Poster Presentation Award in the 24th Scientific Session of the Taiwan Society of Cardiology 1994
4. Best Doctor of Internal Medicine Award, Chang Gung Memorial Hospital 1996
5. Outstanding Staff Award 2008 (Elected), Taipei Tzu Chi Hospital
6. Humane Doctor Award of Taipei Tzu Chi Hospital (Elected), 2009
7. Best Employee Award of Taipei Tzu Chi Hospital (Elected) , 2010
8. Best Staff Award 2011(Elected), Taipei Tzu Chi Hospital
9. Best Staff Award 2012 (Elected), Taipei Tzu Chi Hospital
10. Outstanding Health Care Contribution Award 2017 of New Taipei City (Elected)

Bibliography

1. D Wu, SJ Yeh, CC Wang, MS Wen, HJ Chang, FC Lin. Nature of dual atrioventricular node pathways and the tachycardia circuit as defined by radiofrequency ablation technique. JACC 1992; 20: 884-95.
2. HJ Chang, M Fu, SO Chua, KH Yeh, JP Chang, MJ Hsieh. Two-dimensional echocardiographic observation of dehiscence of mitral plication annuloplasty. The Chang Gung Med J 1993 (16); 2: 125-8.
3. HJ Chang, CC Wang, SJ Yeh, Delon Wu. Double atrial responses to a single ventricular premature impulse resulting from simultaneous ventriculoatrial conductions through the normal pathway and a slow paraseptal accessory pathway. Am Heart J 1993; 125: 1434-6.

4. FC Lin, HJ Chang, MS Chern, MS Wen, SJ Yeh, Delon Wu. Multiplane transesophageal echocardiography in the diagnosis of congenital coronary artery fistula. *Am Heart J* 1995; 130; 6:1236-44.
5. WJ Cherng, MJ Bullard, HJ Chang, FC Lin, Diagnosis of coronary artery dissection following blunt chest trauma by trans-esophageal echocardiography. *J of Trauma* 1995; 39:772-4.
6. MJ Hung, FC Lin, HJ Chang, MS Chern, Delon Wu. Myocardial infarction and sinus node dysfunction as late complications after patch closure of the coronary arteriovenous fistula. *Acta Cardiol Sin* 1997; 13:199-203.
7. SY Hsu, FC Lin, HJ Chang, SJ Yeh, Delon Wu. Multiplane transesophageal echocardiography in diagnosis of anomalous origin of the left coronary artery from the pulmonary artery: a case report. *The American Society of Echocardiography* 1998; 11:668-72.
8. IC Hsieh, HJ Chang, MS Chern, KC Hung, FC Lin, Delon Wu. Late coronary artery stenting in patients with acute myocardial infarction. *Am Heart J* 1998; 136: 606-12.
9. Hung MJ, Hsieh IC, Chang HJ, Chern WJ. Percutaneous transluminal coronary angioplasty of an anomalous infarct-related left circumflex coronary artery- a case report. *Acta Cardiol Sin* 1998; 14:42-45.
10. MJ Hung, HJ Chang, WJ Cherng. Diagnosis and ultrasound-guided compression of iatrogenic inferior epigastric arteriovenous fistula. *J Med Ultrasound* 1999; 7:48-51.
11. MS Chern, HJ Chang, FC Lin, Delon Wu. String-plucking as a mechanism of chordal rupture during balloon mitral valvuloplasty using Inoue balloon catheter. *Catheterization and Cardiovascular Interventions* 1999; 47:213-7.
12. KC Hung, FC Lin, MS Chern, HJ Chang, IC Hsieh, Delon Wu. Mechanisms and clinical significance of transient atrioventricular block during dobutamine stress echocardiography. *J Am Coll Cardiol* 1999; 34:998-1004.
13. IC Hsieh, MS Chern, HJ Chang, KC Hung, FC Lin, Delon Wu. Clinical and angiographic outcomes are similar with half, single, or multiple contiguous Palmaz-Schatz stent implantations for a single coronary stenosis. *Am J Cardiol* 1999; 84:970 -975

Name Shao-Wei Chen 陳紹緯

Sex: Male

Birth Date: March 14, 1980

Birth Place: Taipei, Taiwan

Citizenship: Taiwan

Office Address: Thoracic & Cardiovascular Surgery, Chang Gung Memorial Hospital

5, Fu-Hsing Street, Kuei-Shan, Taoyuan, Taiwan 33305

Tel: 03-3281200 ext.2118

Language: Mandarin, Taiwanese, English

Education:

1998~2005 MD: Medicine, Chang Gung University, Taoyuan, Taiwan

2012~2018 Ph.D.: Graduate Institute of clinical medical science,
College of medicine,

Chang Gung University

Hospital Appointments:

Sep 2005~Aug 2008 R1~R3, Dept of Surgery, Chang Gung Memorial Hospital, Linkou

Sep 2008~Aug 2010 R4~R5, Div of Thoracic & Cardiovascular Surgery, CGMH

Sep 2010~now Attending Staff, Division of Cardiac Surgery, CGMH

Dec 2013~now Head, Intensive Care Unit of Cardiac Surgery, CGMH

Mar 2019~now Deputy Director, Center for Big Data Analytics and Statistics

Academic Appointments:

July 2015~June 2017 Assistant Professor, Division of cardiac surgery, Department of surgery.

Aug 2018~now Assistant Professor, Medical School, Chang Gung University

July 2018~now Associate Professor, Division of cardiac surgery, Department of surgery.

Board Certification:

1. Taiwan Surgical Association, No:5943, 2009

2. Taiwan Association of Thoracic & Cardiovascular Surgery, No: 419, 2010
3. Taiwan Society of Cardiology, No:S1433, 2010
4. Taiwan Society for Vascular Surgery, No: S00498, 2010
5. Taiwan Surgical Association, Specialist of Surgical Critical Care, No: 0549, 2011
6. Taiwan Society for Vascular surgery, Specialist of Aortic stent, No: QEVAR 00054, 2011

Professional Affiliations:

1. Taiwan Surgical Association
2. Taiwan Association of Thoracic & Cardiovascular Surgery
3. Taiwan Society of Cardiology
4. Taiwan Society for Vascular Surgery

Research Interest:

Clinical research:

Outcomes of Cardiovascular Surgery:

Coronary artery bypass surgery, Valve surgery, Aortic surgery, ECMO

Taiwan National Health Insurance Research Database

Intensive care after cardiac surgery and ECMO

Traumatic cardiovascular surgery

Basic research:

Cardiovascular research in Lumican knock out mice

Biomarker of acute kidney injury after cardiac surgery

Vascular graft preservation prior to coronary artery bypass surgery

Publication Highlights:

1. **Chen SW**, Tsai FC*, Tsai FC, Chao YK, Huang YK, Chu JJ, Lin PJ. Surgical risk and outcome of repair versus replacement for late tricuspid regurgitation in redo operation. Ann Thorac Surg 2012Mar;93(3): 770-5 (SCI; IF= 3.779; Surgery, 21/200=10.5%)
2. **Chen SW**[†], Chang CH[†], Lin YS, Wu VC, Chen DY, Tsai FC, Hung MJ, Chu PH, Lin PJ, Chen TH*. Effect of dialysis dependence and duration on post-coronary artery bypass grafting outcomes in patients with chronic kidney disease: A nationwide

- cohort study in Asia. *Int J Cardiol* 2016Nov;223:65-71 (SCI;IF=4.034; Cardiac and cardiovascular systems 41/128=32.03%)
3. **Chen SW**, Tung YC, Jung SM, Lin PJ, Kao WW, Chu PH*. Lumican-null Mice are Susceptible to Aging and Isoproterenol-induced Myocardial Fibrosis. *Biochem Biophys Res Commun* 2017Jan;482(4):1304-11 (SCI; IF=2.559, [Biophysics](#) 35/72=48.61%)
 4. **Chen SW**, Tsai FC, Lin YS, Chang CH, Chen DY, Chou AH, Chen TH*. Long-term outcomes of extracorporeal membrane oxygenation support for postcardiotomy shock. *J Thorac Cardiovasc Surg* 2017Aug;154(2):469-77 (SCI ; IF=4.880, [Surgery](#) 9/200=4.5%)
 5. Lee HA, Cheng YT, Wu VC, Chou AH, Chu PH, Tsai FC, **Chen SW***. Nationwide cohort study of mitral valve repair versus replacement for infective endocarditis. *J Thorac Cardiovasc Surg.* 2018 Apr 21. pii: S0022-5223(18)31051-1. (SCI ; IF=4.880, [Surgery](#) 9/200=4.5%)
 6. Chen CC, Chen TH, Tu PH, Wu VC, Yang CH, Wang AY, Lee ST, Tsai FC, **Chen SW***. Long-Term Outcomes for Patients With Stroke After Coronary and Valve Surgery. *Ann Thorac Surg.* 2018 Jul;106(1):85-91. (SCI; IF= 3.779; [Surgery](#), 21/200=10.5%)
 7. **Chen SW**, Chu Yen*, Wu VC, Tsai FC, Nan YY, Lee HF, Chang CH, Chu PH, Wu S, Lin PJ*. Microenvironment of saphenous vein graft preservation prior to coronary artery bypass grafting. *Interact Cardiovasc Thorac Surg.* 2018 Jul 6. doi: 10.1093/icvts/ivy201. (SCI; IF=1.756; Cardiac and cardiovascular systems, 81/128=63.28%)
 8. **Chen SW**, Wu VC, Lin YS, Chen CC, Chen DY, Chang CH, Chu PH, Ting PC, Chou AH, Chen TH. Propensity Score Matched Analysis of Mechanical vs. Bioprosthetic Valve Replacement in Patients With Previous Stroke. *Circ J.* 2018 Jul 25;82(8):2041-2048. (SCI; IF=2.895; Cardiac and cardiovascular systems 54/128=42.19%)
 9. Lee CC, Chang CH, **Chen SW***, Fan PC, Chang SW, Chen YT, Nan YY, Lin PJ, Tsai FC. Preoperative Risk Assessment Improves Biomarker Detection for Predicting Acute Kidney Injury After Cardiac Surgery. *PLOS One.* PLoS One. 2018 Sep 4;13(9):e0203447. (SCI ; IF=2.766, Multidisciplinary sciences, 15/64=23.44%)
 10. Wu VC[†], **Chen SW**[†], Ting PC, Chang CC, Wu M, Lin MS, Hsieh MJ, Wang CY, Chang SH, Hung KC, Hsieh IC, Chu PH, Wu CS, Lin YS. Selection of Beta-Blocker in Patients with Cirrhosis and Acute Myocardial Infarction – A 13-Year Nationwide Population-Based Study in Asia. *J Am Heart Assoc.* 2018 Oct 2;7(19):e008982. (SCI ; IF=4.45, Cardiac and cardiovascular systems 36/128=28.13%)

Curriculum vitae

陳朝欽 Chao-Chin Chen MD.

Medical education:

1978-1985 China Medical University

Postgraduate Education:

1987-1989 Resident (Medical Medicine), Cathay general hospital Medical Center

1991-1993 Fellowship (Cardiology), National Taiwan University Hospital

Certification

1990 specialist of Internal Medicine

1993 specialist of the Taiwan Society of Cardiology

Current Appointment

1993- current VS. of Section of Cardiology, Lo-Tung Poh-Ai Hospital

Publications (first author, recent 10 yrs)

1. Obstruction and sequestration: a case of apical hypertrophic cardiomyopathy concomitant with subaortic obstruction, apical sequestration, and valvular aortic stenosis. *Chao Chin Chen Int J Cardiovasc Imaging* 2009;25:753-5
2. Assessing myocardial bridging and left ventricular configuration by 64-slice computed tomography in patients with apical hypertrophic cardiomyopathy presenting with chest pain *Chao Chin Chen J Comput Assist Tomogr* 2010;34:70-4
3. Apical hypertrophic cardiomyopathy: correlations between echocardiographic parameters, angiographic left ventricular morphology, and clinical outcomes *Chao Chin Chen Clin Cardiol* 2011;34:233-8
4. Screening for Asymptomatic Coronary Heart Disease in Diabetic Patients. *J of Int Med of Taiwan* 2008;19:227-237
5. Update on C-reactive Protein for the Primary Prevention on Cardiovascular Disease- the Impact of JUPITER Study. *J of Int Med of Taiwan* 2009;20:385-395
6. Positive Implication in a Negative Study – ACCORD Study and Risk-Factor Control in Type 2 Diabetes. *J of Int Med of Taiwan* 2010;21:391-400
7. Novel oral anticoagulants: New aurora for the prevention of stroke in atrial fibrillation. *J of Int Med of Taiwan* 2012;23:77-97
8. New Hope for Lipid-Lowering Beyond Statins in High Cardiovascular Risk Population –An in-depth look through the IMPROVE-IT trial. *J of Int Med of Taiwan* 2016 : 27 : 1-12
9. Intensive Lipid Lowering Therapy in FOURIER Study: Inspiring Results, but Needs Rational Choice *J of Int Med of Taiwan* 2017 : 28 : 261-270
10. The Implications of Office Blood Pressure Measurement Methods on Diagnosis and Treatment Targets of Hypertension - What Is a Primary Care Clinician to Do ? *J of Int Med of Taiwan* 2018 : 29 : 339-352

11.

Wei-Shin Liu 劉維新

PERSONAL INFORMATION	Birthdate: Aug 16, 1972
	Gender: male
	Language: English/Chinese
	Nationality: Taiwan

PROFESSIONAL EXPERIENCE SUMMARY	• Interventional cardiology
	• Pulmonary hypertension
	• General cardiology

WORK EXPERIENCE	
Oct 2005-present	花蓮慈濟醫院心臟內科主治醫師 慈濟大學醫學系臨床助理教授 台灣心臟學會肺高壓委員會委員 Attending Physician, division of cardiology Tzu-Chi General hospital, Hualien, Taiwan
Oct 2004-Sep 2005	Attending Physician, department of internal medicine Tzu-Chi General Hospital Yu-Li branch, Hualien, Taiwan 玉里慈濟醫院心臟內科主治醫師
Apr 2004-Sep 2004	Associate Attending Physician, division of cardiology, Tzu-Chi General hospital, Hualien, Taiwan
Mar 2002-Mar 2004	Fellow, Senior Resident, division of cardiology Tri-Service General hospital, Taipei, Taiwan
Sep 1988- Jan 2002	Resident, department of internal medicine Military SongShan Hospital (Air Force General Hospital) Taipei, Taiwan

EDUCATION	
Sep 1991 – Jun 1998	Taipei Medical University, Taipei, Taiwan 台北醫學院醫學系畢
Feb 2014 – Jun 2014	Master Pulmonary Vascular Disease Academic Year 2013-2014 Bologna University, Italy, 義大利波隆那大學肺血管生理學碩士

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Publications :

1. **Lo MH**, Huang CF, Ko SF, Chien SJ, Lin YJ, Lin IC, Liang CD*. Impact of transcatheter closure of atrial septal defects in pediatric patients on body weight. J Formos Med Assoc. 2011 Jul;110(7):467-72.
2. Chien SJ, Chang JP, Ko SF, Lin YJ, Huang CF, Lin IC, **Lo MH**, Chang HW, Liang CD* Long-term outcome of outlet-type ventricular septal defect: focus on congestive heart failure and aortic valve disorder. Acta Cardiologica Sinica. 2011 Sep; 27(3):197-203
3. Kuo HC, Hsu CN, Huang CF, **Lo MH**, Chien SJ, Tain YL*. Urinary arginine methylation index associated with ambulatory blood pressure abnormalities in children with chronic kidney disease. J Am Soc Hypertens, 2012 Nov-Dec;6(6):385-92
4. Lin KM, Linag CD, Chien SJ, Lin YJ, Lin IC, **Lo MH**, Wu TH, Huang CF* Predictors for regression of Large secundum atrial septal defects diagnosed in Infancy. Acta Cardiologica Sinica. 2013 Jan; 29(1):82 -7
5. **Lo MH**, Huang CF, Chang LS, Kuo HC, Chien SJ, Lin IC, Lin KM, Lin YJ*. Drug reaction with eosinophilia and systemic symptoms (DRESS) syndrome associated myocarditis : a survival experience after extracorporeal membrane oxygenation support. Journal of Clinical Pharmacy and Therapeutics. 2013 Apr;38(2):172-4
6. Lin YJ, Hsu CN, **Lo MH**, Huang CF, Chien SJ, Tain YL*. High Citrulline-to-Arginine Ratio Associated With Blood Pressure Abnormalities in Children With Early Chronic Kidney Disease. Circulation Journal 2013;77(1):181-7

7. [Kuo HC](#), [Lin YJ](#), [Huang CF](#), [Chien SJ](#), [Lin IC](#), [Lo MH](#), [Liang CD](#)*. Small-bore pigtail catheters for the treatment of primary spontaneous pneumothorax in young adolescents. [Emerg Med J](#). 2013 Mar;30(3):e17
8. Tseng WN, [Lo MH](#), Guo MM, Hsieh KS, Chang WC, Kuo HC*. IL-31 associated with coronary artery lesion formation in Kawasaki disease. *PLoS One*. 2014 Aug 14;9(8):e105195
9. [Lo MH](#), Kuo HC, Hsu YW, Huang YH, Chien SC, Chang WC*. Single-nucleotide polymorphism rs7251246 in ITPKC is associated with susceptibility and coronary artery lesions in Kawasaki disease. *PLoS One*. 2014 Mar 12;9(3):e91118
10. Tain YL, Chien SJ, Lin IC, Hsu CN, [Lo MH](#). Homocysteine and arginine-to-asymmetric dimethylarginine ratio associated with blood pressure abnormalities in children with early chronic kidney disease . *Circulation Journal*. 2015 79: 2031-7
11. [Lo MH](#), Lin IC, Hsieh KS, Huang CF, Chien SJ, Kuo HC, Liang CD, Lin YJ*. Mid- to long-term follow-up of pediatric patients with coronary artery fistula. *Journal of the Formosan Medical Association*. 2016 Jul;115(7):571-6
12. Lin YJ, Cheng MC, [Lo MH](#), Chien SJ*. Early Differentiation of Kawasaki Disease Shock Syndrome and Toxic Shock Syndrome in a Pediatric Intensive Care Unit. *The Pediatric Infectious Disease Journal*. 2015 Nov;34(11):1163-7
13. Kuo HC, [Lo MH](#), Hsieh KS, Guo MM, Huang YH. High-Dose Aspirin is Associated with Anemia and Does Not Confer Benefit to Disease Outcomes in Kawasaki Disease. *PLoS One*. 2015 Dec 10;10(12):e0144603
14. Lin IC, Hsu CN, [Lo MH](#), Chien SJ, Tain YL. [Low urinary citrulline/arginine ratio associated with blood pressure abnormalities and arterial stiffness in childhood chronic kidney disease](#). *J Am Soc Hypertens*. 2016 Feb;10(2):115-23
15. Tseng HC, Ho JC, Guo MM, [Lo MH](#), Hsieh KS, Tsai WC, Kuo HC, Lee CH. [Bull's eye dermatoscopy pattern at bacillus Calmette-Guérin inoculation site correlates with systemic involvements in patients with Kawasaki disease](#). *J Dermatol*. 2016 Sep;43(9):1044-50.

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Publications (The past three years)

1. **Chang WT**, Lee WH, Lee WT, Chen PS, Su YR, Liu PY, Liu YW, Tsai WC. [Left ventricular global longitudinal strain is independently associated with mortality in septic shock patients.](#) *Intensive Care Med.* 2015 Oct;41(10):1791-9 (**IF:7.214**)
2. **Chang WT**, Tsai WC, Wu CH, Lee YW, Tai YL, Li YH, Tsai LM, Chen JH, Liu PY. [Fetuin-A as a predictor of sarcopenic left ventricular dysfunction.](#) *Sci Rep.* 2015 Jul 10;5:12078. (**IF:5.578**)
3. **Chang WT**, Fisch S, Chen M, Qiu Y, Cheng S, Liao R. [Ultrasound based assessment of coronary artery flow and coronary flow reserve using the pressure overload model in mice.](#) *J Vis Exp.* 2015 Apr 13;(98):e52598. (**IF:1.325**)
4. **Chang WT**, Chow NH, Tsai YS, Lin CC. [Acute ruptured mycotic aneurysm mimicking myocardial tumor with ST elevation myocardial infarction.](#) *Intensive Care Med.* 2015 Oct;41(10):1834-5 (**IF:7.214**)
5. **Chang WT**, Chen PS, Chen PW, Tsai LM, Liu PY. [Fetuin A adds prognostic value for cardiovascular outcomes among patients with coronary artery disease with moderate calcification.](#) *Int J Cardiol.* 2015 Apr 15;185:159-61. (**IF:4.036**)
6. **Chang WT**, Liu YW, Liu PY, Chen JY, Lee CH, Li YH, Tsai LM, Tsai WC. [Association of Decreased Right Ventricular Strain with Worse Survival in Non-Acute Coronary Syndrome Angina.](#) *J Am Soc Echocardiogr.* 2016 Apr;29(4):350-358.e4. (**IF:4.056**)
7. **Chang WT**, **Shi JY**, **Feng YH**, Chian CY, Chen ZC. The early predictive value of right ventricular strain in Epirubicin induced cardiotoxicity in patients with breast cancer. *Acta Cardiol Sin* 2016 Sep;32(5):550-559 (**IF:0.331**)
8. **Chang WT**, Cheng JT, Chen ZC. [Telmisartan improves cardiac fibrosis in diabetes through peroxisome proliferator activated receptor \$\delta\$ \(PPAR \$\delta\$ \): from bedside to bench.](#) *Cardiovasc Diabetol.* 2016 Aug 12;15(1):113 (**IF: 4.534**)
9. **Chang WT**, Weng SF, **Hsu CH**, **Shih JU**, Wang JJ, Wu CY, Chen ZC. The prognostic factors in patients with pulmonary hypertension – a nationwide cohort study. *J Am Heart Assoc* 2016 Aug 29;5(9) (**IF: 5.117**)
10. Kristopher A. Sarosiek, Cameron Fraser, Nathiya Muthalagu, Patrick D. Bhola, **Weiting Chang**, Samuel K. McBrayer, et al. Developmental regulation of mitochondrial apoptosis by c-Myc governs age- and tissue-specific sensitivity to cancer therapy. *Cancer Cell* 2017 Jan 9;31(1):142-156. (**IF: 23.214**)
11. **Chang WT**, Chen JS, Tsai MH, Tsai WC, Juang JN, Liu PY. Interplay of Aging and Hypertension in Cardiac Remodeling: A Mathematical Geometric Model. [PLoS One.](#) 2016 Dec 15;11(12):e0168071 (**IF: 3.534**)

3-D Printing in Cardiology

Wei-Wen Lin, MD. PhD.

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Recent advance in three-dimensional echocardiography (3DE) has significantly improved of non-invasive imaging on our understanding and management of cardiac diseases in clinical practice.

Transthoracic 3DE enables an easier and reproducible interpretation of the complex cardiac anatomy. One major advantage of the third dimension is the improvement in the accuracy and reproducibility of chamber volume measurement, bypass the geometric assumptions and errors caused by foreshortened views. We used transthoracic 3DE to assess left atrium and left ventricular volume in different groups of disease. A most important benefit of 3D echo is the en face views of heart valves, which gave operator a better understanding the severity and mechanisms of valve diseases. 3D TEE may be used in many new catheter base structure heart disease interventions, including TAVI, MitraClip, LAA occlude and paravalvular leak occlude deployment. In the near future, 3D echocardiography images may be also be used for 3D printing. However, both 3D TTE and TEE are technically demanding technique. How to acquiring volumetric data sets without artifacts, post-processing images to visualize the cardiac structure of interest are important. Display the information according to different disease and met the need for intervention cardiology. In conclusions, 3DE is still in evolution and at a phase of early adaptation for clinical usage. It provides us unique perspective and spatial relationship of valves structures, which are of great value for further intervention management. 3D-printed heart model allowed cardiologists to better understand the complex relationship of the heart structure, printed in a hard opaque material, and surrounding anatomical structures printed in a flexible transparent material. Having the model enabled the team to confidently proceed with interventional or electrophysiology study and catheter base structure heart disease treatment.

【ACC IN TAIWAN: WOMEN HEART HEALTH】

Heart Failure in Asian Women

Yen-Wen Wu, MD, PhD. Far Eastern Memorial Hospital, New Taipei City, Taiwan

The incidence of heart failure (HF) is increasing, and hospitalization rates and mortality have worsened in the past 25 years. Previous multi-national data highlight the significant heterogeneity among Asian patients with HF, and the important influence of both ethnicity and regional income level on patient characteristics. For example, diabetes was 3-fold more common in Southeast Asian compared to white patients with HF, despite younger age and less obesity, and more strongly associated with poor outcomes in Asian patients than white patients. HF morbidity, hospitalization incidence, and mortality also vary widely amongst ethnic immigrant groups in many studies, highlighting the importance of ethnicity as a potential independent risk and prognostic factors for HF.

On the hand, HF is also an important cause of morbidity and mortality in women, and they tend to develop it at an older age compared to men. HF with preserved ejection fraction (EF) is more common in women than in men and accounts for at least half the cases of HF in women. When comparing men and women who have HF and a low EF, the women are more symptomatic and have a similarly poor outcome. Overall recommendations for guideline-directed medical therapies show no differences in treatment approaches between men and women. Further studies are needed to shed light into different mechanisms, causes, and targeted therapies of HF in women.

In this talk, I will review the HF studies focusing in Asian women, Taiwan data including TSOC Acute Decompensated Heart Failure (ADHF) Registry and the experience of Far Eastern Memorial Hospital HF center. The diagnosis and optimal treatment barrier, prognosis and gender issues in Asia will be discussed. There is an enduring need for optimizing HF management to improve the quality of care and clinical outcomes in Asians.

【DIGITAL HEALTH IN HYPERTENSION MANAGEMENT】

Digital Health in Hypertension Management: Experience from FEMH

Yen-Wen Wu, MD, PhD. Far Eastern Memorial Hospital, New Taipei City, Taiwan

Cardiovascular disease (CVD) is one of the main causes of morbidity and mortality worldwide. Despite the availability of highly effective treatments, the contemporary burden of disease remains huge. Digital health interventions hold promise to improve further the quality and experience of cardiovascular care. Hypertension (HTN) is the most important risk factor for CVD. Effective control of systolic blood pressure (BP) is associated with significant reduction in the incidence of these complications. The 2017 American College of Cardiology (ACC)/American Heart Association (AHA) guideline advocates the use of out-of-office BP measurements to confirm HTN and evaluate the efficacy of BP-lowering medications. Adopters of digital health activity trackers tend to be more adherent to hypertension, diabetes, and dyslipidemia medications, and adherence increases with tracking frequency.

In this talk, I will introduce the experience of Far Eastern Memorial Hospital - Far Eastone Cooperation Project in the remote care programs, including post-discharge CVD patients since 2014, then extension to i-cloud of HTN and DM care (Health+). The similar system has been implanted in other hospitals and Tainan City. We also had a small scale pilot study with applying community software (LINE@) for tele-healthcare for chronic CV patient's education with Oriental Institute of Technology. The real world experience suggests that there may be value in examining new ways to further promote medication adherence and BP control through programs that incentivize health tracking and leveraging insights derived from connected devices to improve health outcomes.

Cardiac Care in Women: US Perspectives

Cardiovascular disease remains the leading cause of death in women globally. The goal of this talk is to address Gender-specific differences with regards to the incidence, treatment, and outcomes of cardiovascular disease in women. Evolving knowledge of sex-specific presentations, improved recognition of risk factors, and expanded understanding of the sex-specific pathophysiology of ischemic heart disease have resulted in improved clinical outcomes in women. Yet, ischemic heart disease continues to be the leading cause of morbidity and mortality in women in the United State. Understanding the unique cardiovascular risk profile and barriers to optimal treatment outcomes in women is imperative for improvement of the full spectrum of ischemic heart disease clinical care and outcomes in women.

**Care and Outcomes of Acute Coronary Syndrome in Taiwan:
DAPT as an example**

Yi-Heng Li, MD, PhD, FESC, FACC

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Acute coronary syndrome (ACS) is one of the most common cardiovascular diseases and carries a high mortality despite advances in treatment. Dual antiplatelet therapy (DAPT) plays an important role in ACS management. All guidelines around the world recommend new generation P2Y12 inhibitors as first line therapy and DAPT duration for at least 12 months after ACS. This talk will make an overview of the current status of DAPT treatment for ACS in Taiwan with the data derived from the Taiwan ACS Registry and National Health Insurance Database. The data from Taiwan will be compared with our neighboring countries, such as Japan and Korea.

【台灣心血管登錄計劃的回顧和展望】

T-SPARCLE Experience

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Taiwanese Secondary Prevention for patients with Atherosclerotic disease (T-SPARCLE) Registry is a multi-center prospective observational registry study, which involves 16 medical centers across all regions in Taiwan since Jan. 2010. Briefly, the registry study attempts to recruit and follow up a total of 6,050 patients (66±12years, 74% male) who were included of patients with established atherosclerotic cardiovascular diseases (ASCVD) who have been receiving secondary prevention therapy, with a special focus on lipid management, so as to assess the treatment patterns, goal attainment, factors influencing treatment, and the associated clinical outcomes. Eligible patients would be followed every year for a total of 5 years, and every 2 years thereafter. Clinical endpoints, vital signs, use of lipid-lowering agents, concurrent medications, adverse events, and laboratory data were recorded at enrollment and each follow-up. Coronary artery disease constituted the majority of the population (89%), including 78.9 % with history of acute coronary syndrome. This indicates that the study patients in this cohort is a very high-risk population. Based on this registry data, the information are very valuable to understand the guideline-adherent therapy, specifically in lipid management, lipid goal attainment and outcome predictors in patients with ASCVD in Taiwan. We further evaluated these issues in special population such as chronic kidney disease, diabetes mellitus or heart failure. This talk, we will introduce this registry, key findings and its important clinical impacts, especially in the lipid management in Taiwan.

Cardiovascular Implication of ADHD medications: a pediatric cardiologist's perspective.

Attention-deficit/hyperactivity disorder (ADHD) affects around 5% of Taiwanese children and adolescent. It is proposed suboptimal norepinephrine and dopamine neurotransmitters in prefrontal cortex synapses cause cognitive impairment. The mainstay of pharmacologic treatment of ADHD is stimulants, such as methylphenidate. Those stimulants, which causing hyperadrenergic state, was proved to have greater efficacy compared to those non-stimulants, such as atomoxetine. The use of stimulants results in modest increase of heart rate (3 - 10 beats per minute), systolic blood pressure (3 - 8 mmHg) and diastolic blood pressure (2 – 14 mmHg). It's also associates with increased risk of sudden death and arrhythmia. However, the incidence rate of cardiovascular events was low, and the results of literatures were conflicting. Complaints such as chest pain and palpitation were commonly heard in pediatric cardiologist's clinics. Current guideline for psychiatric practitioners suggested CV-focus history taking and physical examination before initiating stimulants. ECG was ordered in some circumstance. Those guidelines also suggested referral to pediatric cardiologists if cardiovascular disease was suspected. Unfortunately, documented consensus stands for pediatric cardiologists is lacking. As pediatric cardiologists, we should be more concerned facing ADHD medication users with underlying cardiomyopathy, ion channelopathy, potential life-threatening arrhythmia (WPW) and hypertension. For management of side effects of stimulants, we can refer to experiences in treatment of amphetamine toxicity owing to their shared pharmacological properties. To relieve palpitation, those beta-blocker with alpha effect such as Carvedilol to avoid unopposed alpha-1 adrenergic stimulation, and those non-DHP calcium channel blocker such as verapamil and diltiazem might cause less reflex tachycardia for hypertension treatment. Arrhythmias could be treated by transcatheter ablation rather than discontinue the medication. Discussion with family comprehensively before and during medication use is essential. The teamwork of psychiatrists, pediatric cardiologists, and electrophysiologist is the key to improve patient care.

幹細胞治療在心血管應用-過去、現在、未來

中山醫學大學醫學研究所 李英雄

The field of stem-cell researches for four decades has changed dramatically since 2010 simply because the clinical trials are showing both safety and efficacy. Thus, stem-cell industry is booming, and stem-cell clinics are offering stem-cell treatments for various diseases/disorders including cardiovascular, neurological, orthopedic, cosmetic and other conditions. In 2001, Orlic, D. et al. suggested that stem cells derived from bone marrow can replace heart muscle lost as a result of heart attack, and can improve cardiac function (Orlic, D. et al. *Nature* 410, 701-705, 2001), then stem-cell therapy for fatal heart attack initiated a widespread applications in cardiovascular diseases. Since 2001, stem/progenitor cells in the heart, including atrium, ventricle and epicardium have been found, and might be able to engage in repair after heart injury. Reviewing the key events in the stem-cell milestones, failure of the largest clinical trial of adult stem-cell treatment designed to help heart attack patients was reported in 2005. Transdifferentiation of stem/progenitor cells was less than 2% of transplanted or injected cells that take on the in vivo fate of myocardial cells. Improvement in cardiac function with stem-cell therapy for heart attacks might have arisen not because the stem cells transdifferentiated, but because new blood vessels were encouraged to grow around the injected area. The mechanisms of arrhythmic complications include: (1) Re-entry circuit (loop) in immature stem-cell-derived cardiomyocyte graft, and (2) Graft automaticity.

The creation of induced pluripotent stem (iPS) cells from adult connective tissue by Shinya Yamanak in 2006 won the 2012 Nobel Prize in Medicine/Physiology. The impacts of iPS cells on regenerative medicine applications were supposed to herald a medical revolution. Therapies based on iPS cells are approaching clinical trials, and are increasingly seen as the future of cell transplants. The commercially marketed products made from human iPS cells are already available for use by pharmaceutical companies to test the effects of potential heart drugs.

Pregnancy with pre-existing cardiovascular diseases

洪大川

Cardiac disease remains a major cause of death during peripartum period in women. The incidence of pregnancy in women with cardiovascular disease has been rising, primarily due to women with advanced maternal age and also those women with congenital heart disease reaching childbirth age. Despite women can tolerate well with most cardiac conditions during pregnancy and deliver safely with favorable outcomes, there are still some cardiac conditions leading to significant maternal and fetal morbidity and mortality. However, a therapy is beneficial for the mother may be associated with potential harm to the developing child. The aim of this speech is to provide a brief overview of current knowledge and practice in the pregnancy related cardiovascular disease, with an emphasis on the major physiological changes through trimesters, focusing on the risk assessment, and the optimum management both for mother and fetus during pregnancy. Mostly important, the cardiologists are able to identify high-risk pregnant women earlier and to provide the most appropriate management for them. The available published reports and guidelines regarding the risk stratification and clinical management in pregnant women are reviewed.

The Role of Nuclear Medicine Examination in the Diagnosis of Heart Failure

Guang-Uei Hung, MD, FANMB

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In Taiwan, myocardial perfusion imaging (MPI) is the most commonly used test among the nuclear medicine examinations. For patients with heart failure, MPI is helpful for differentiation of ischemic and non-ischemic cardiomyopathy. In combination of metabolic imaging with FDG-PET, hibernating myocardium can also be effectively differentiated from scar. Cardiac amyloidosis is under-recognized among heart failure patients with preserved ejection fraction (HFpEF). Bone-seeking tracers like ^{99m}Tc -PYP were recently used to differentiate TTR from AL types of cardiac amyloidosis. Myocardial imaging for sympathetic innervation with I-123 MIBG has been found very useful for identifying the prognosis and risk of sudden cardiac death (SCD) in patients with heart failure.

SCD is one of the major reasons of mortality for heart failure patients, and most SCDs are related to ventricular arrhythmia. MPI provides a comprehensive assessment of myocardial perfusion, viability, LV function and dyssynchrony. Using the ventricular arrhythmia recorded in the device of cardiac resynchronization therapy (CRT), our recent study showed that lower LVEF, larger scar and/or more dyssynchrony assessed by MPI were related to the development of ventricular arrhythmia for patients with CRT. Survival analysis with Kaplan-Meier curves showed that the survival probability for VT/VF in those with LVEF > 29%, scar areas < 23% and phase SD < 50° was significantly better than the others (HR = 5.16, 95%CI: 1.20-22.16) by log rank test ($\chi^2 = 5.9894$, $p = 0.014$). In addition, multivariate Cox regression analysis and receiver operating characteristic curve analysis showed that five risk factors were significant predictors of ventricular arrhythmia, including increased left ventricle ejection fraction (LVEF) by < 7 % after CRT, low LVEF after CRT ($\leq 30\%$), change of intrinsic QRS duration (iQRSd) by $\leq 7\text{ms}$, wide iQRSd after CRT ($\geq 121\text{ms}$) and high systolic dyssynchrony after CRT (phase standard deviation > 45.60). For patients with all of the 5 risk factors, more than 86% developed ventricular arrhythmia during the period of follow-up.

In conclusion, MPI is not only very useful for risk stratification and treatment planning for patients with coronary artery disease but also helpful for assessing the risk of ventricular arrhythmia and/or SCD for patients with heart failure.

雙向轉診實施影響及困境

徐迺維

宜蘭縣政府衛生局 國立陽明大學

臺灣的醫療體制為四級制，也就是由醫學中心、社區醫院、地區醫院、以及基層診所所組成。但近 10 年來，我們卻發現門診服務有往大醫院集中的趨勢。可是基層診所是最接近民眾的醫療服務單位，如果任由診所萎縮，的確會造成民眾在就醫上許多之不方便；而且缺少診所這個層級的服務及把關，也會讓各類病患通通往醫院集中，造成醫療資源的浪費。再加上近年來由於醫療人員工作權益的被重視，因此在工作時數方面也即將納入或接受類似勞基法所要求的內容，這會造成未來醫師的需求量會增加，因此近年來醫學生的名額也有所增加。但在可見的未來，台灣醫院的數量不會大量增加，因此這些醫學生完訓後，會有相當大的一部分進入基層服務。如果我們不能適時地擴大基層的服務量，任由基層萎縮，對這些年輕的醫學生未來發展而言，也是相當不公平的。

因此為衛生福利部在 106 年開始，就希望提升基層診所及地區醫院的服務量，最重要的就是推動推動區域級(含)以上醫院門診減量措施，要求區域級以上醫院每年降低 2% 的門診件數，以五年降低 10% 為目標值。這個政策的確造成了相當大的爭議，但衛生福利部仍然持續辦理。只是以 107 年台北區第三及四季的結果顯示，醫學中心門診件數下降了 1.05%，區域醫院者下降了 2.81%，合計為 1.99%。第四季由醫學中心及區域醫院下轉至基層診所的案件總計為 5,168 件，但至 12 月 31 日止，實際到基層診所看診者僅 797 件 (15.42%)。就門診件數占率變化而言，醫學中心、區域醫院及基層診所沒有明顯變化，而地區醫院則有增加。

這個結果代表的意義到底是什麼？是不是因為並沒有在病人端做控管，造成區域醫院級以上的醫院即使把病人轉出來，但病人本身並不願意回到診所看診？還是因為時間不夠久，所影響的層面尚不明確？這些都是值得繼續探討的題目。但民眾會去什麼樣層級的醫療機構看診，部分也是在於其對該機構的信心，如果信心不足，自然不會心甘情願的被轉診。所以如果想要持續擴大基層醫療診所的服務量，如何提高民眾對基層診所所提供的醫療服務的信心，應該是另外一個必須被重視的課題。

The best use of endovascular stenting to relieve branch pulmonary arterial stenosis

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Background:

Branch pulmonary arterial stenosis (BPAS) can be either a congenital anomaly or an acquired lesion after surgery. Its characteristics range from discrete segmental, diffuse tubular hypoplasia, central and peripheral types. The most common associated congenital heart diseases are Tetralogy of Fallot, pulmonary atresia with ventricle septal defect and single ventricle physiology. Because surgical repairs usually complicated with recurrence of stenosis, so interventional catheterization became the choice measure of therapy.

Indication:

Significant BPAS causes high-pressure gradient across narrowing, right ventricle pressure overloading, poor peripheral pulmonary vessel growing and even oxygen desaturation. Whenever there was a unilateral severe obstruction, a risk of ipsilateral hypoplasia or even total pulmonary arterial occlusion may occur. Therefore, it is imperative to open up any remarkable BPAS. There are 3 measures of interventional catheterization to manage BPA, including balloon angioplasty, cutting balloon angioplasty, stent implantation and hybrid procedure. Balloon angioplasty may achieve a 50-80% successful rate, but stent angioplasty is required for lesions refractory to balloons.

Complications:

Although Stenting BPAS has been a matured technique, a high complication rate remains. Malposition, migration or fracture of the implanted stents and jailing (compression) on adjacent branches are the 4 most common complications. The total complication rate were 14-19%, including 9% of major complication and 2.3% of mortality.

Difficulties and novel techniques:

Stenosis at vessel bifurcation, either central or peripheral, poses the most difficult situation for stenting angioplasty. In latest years, a couple of novel techniques to address this difficulty have been proposed, including the double balloon/stent kissing technique, the stent tandem balloon ensemble technique and the Jailing and de-jailing sequential technique.

Conclusion: In view of the ever-increasing patients of BPAS and single ventricle physiology into their adolescent and adult lives, it is imperative that the interventional cardiologists use prudently the optimal measures to manage each specific type of BPAS.

End-of-life Care for the Patients with Terminal Heart Failure

Dr. Heng-Chia Chang
Taipei Tzu Chi Hospital

Since the past three decades, we have witnessed the advancement of the heart diseases treatment that has dramatically changed the natural courses of heart failure. Patients with heart failure are enjoying the benefits of the treatments (pharmacological and non-pharmacological), which have significantly improved their quality of life and long-term survival. However, the longer the patients can live, the more medical problems and, consequently, the more suffering they will endure. When death is inevitable, instead of starting ineffective treatment to prolong the dying process, the options of end-of-life care – including symptom-relief, pain control, and psychosocial support – should be provided, discussed and implemented.

Most patients with terminal heart failure would prefer to die at home peacefully rather than in the hospital, especially in the CCU. Advance decision options, including Do-Not-Resuscitate orders, the withdraw of life-sustaining equipment, deactivation of implantable defibrillator when needed, and along with other hospice cares, should be provided and are strongly recommended. Yet, most patients do not have documented advance medical decisions on the day they die because the unpredictable nature of cardiac death and inflicted further by the professionalism of cardiology. Cardiologists are well-trained specialists for saving patients' lives but not having the expertise of hospice care. Because it is difficult to open a discussion with patients on the end-of-life care even when the patients initiated the talk or are willing to discuss, the majority of the cardiologists still try their best to have their patients' conditions to be stabilized once again.

In Taiwan, Patient Autonomy Act has taken effect since January 6, 2019. Once a Taiwanese citizen has signed the document of advance decisions, he or she will be treated accordingly when having terminal illness, irreversible coma, persistent vegetative state, severe dementia, and other incurable diseases defined by laws. Cardiologists in Taiwan are encouraged to discuss with their patients about the prognosis and the preference of care and to treat their terminal heart failure patients in palliative ways per their advance decisions. The implementation of end-of-life care for patients can improve their quality of life, prevent ineffective treatment, and reduce the suffering for both the patients and their family members. End-of-life care should become an integral part of cardiologist's expertise.

RV Failure in Association with Pulmonary Diseases

Chih-Hsin Hsu M.D., Ph.D.

National Cheng Kung University Hospital

Right ventricular dysfunction arises in chronic lung disease when chronic hypoxemia and disruption of pulmonary vascular beds contribute to increase ventricular afterload, and is generally defined by hypertrophy with preserved myocardial contractility and cardiac output. Although the exact prevalence is unknown, right ventricular hypertrophy appears to be a common complication of chronic lung disease, and more frequently complicates advanced lung disease. Right ventricular failure is rare, except during acute exacerbations of chronic lung disease or when multiple co-morbidities are present. Group 3 pulmonary hypertension is a common complication of chronic lung disease, including chronic obstructive pulmonary disease (COPD), interstitial lung disease, and sleep-disordered breathing. Development of pulmonary hypertension is associated with poor prognosis and may progress to right heart failure. The effects of pulmonary hypertension on the right ventricle range between early right ventricle remodeling, hypertrophy, dilatation, and eventual failure with associated increased mortality. The golden standard for diagnosis of PH is right heart catheterization. Treatment is targeted at correcting hypoxia and improving pulmonary gas exchange and mechanics. There are presently no convincing data to support the use of pulmonary hypertension-specific therapies in patients with right ventricular dysfunction secondary to chronic lung disease.

**COMPREHENSIVE REVIEW OF CHRONIC
THROMBOEMBOLIC PULMONARY HYPERTENSION
Prevalence, Pathogenesis, and Genetic Background**

Chih-Hsin Hsu M.D., Ph.D.

Chronic thromboembolic pulmonary hypertension (CTEPH) is a rare, progressive pulmonary vascular disease that is usually a consequence of prior acute pulmonary embolism. This disease will lead to progressive right heart failure and death if untreated. It develops in approximately 1% to 5% of patients who suffer an acute pulmonary embolism (PE) and has an overall incidence of 3 to 30 per million in the general population. Risk factors for the development of CTEPH include signs of right heart strain at the time of incident PE, inherited coagulopathies, inflammatory conditions, hypothyroidism, and a history of splenectomy. CTEPH usually begins with persistent obstruction of large and/or middle-sized pulmonary arteries by thrombi leading to elevated pulmonary arterial pressure. It is now known that small-vessel abnormalities also contribute to hemodynamic compromise, functional impairment and disease progression in CTEPH. A secondary arteriopathy affecting distal muscular pulmonary arteries and arterioles in patients with chronic large-vessel obstruction. The degree of small-vessel disease has a substantial impact on the severity of CTEPH and postsurgical outcomes. It is unlikely that a single factor explains the etiology of CTEPH. Novel approaches, such as gene microarray, RNA sequencing, and broad-based proteomic approaches may provide insight into the differing molecular signatures of patients with CTEPH and patients with acute PE or other types of pulmonary hypertension.

Effect of β -Blocker Therapy on Late Outcomes after Surgical Repair of Type A Aortic Dissection

Shao-Wei Chen, MD, PhD

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Center for Big Data Analytics and Statistics, Chang Gung Memorial Hospital, Linkou ,
Taiwan

Abstract:

Objective: To evaluate the effects of β -blocker therapy on long-term outcomes in patients after surgical repair of type A aortic dissection.

Methods: A total of 4,275 patients with acute type A aortic dissection, who underwent surgical repair between 2004 and 2013, were identified by using Taiwan National Health Insurance Research Database. A 1-year observational interval since discharge was used to determine β -blocker usage and medication adherence in survivors. β -blocker usage was defined as medication prescription within one year. All others were defined as non- β -blocker users. Propensity score matching analysis was performed. The primary outcome was all-cause mortality. Secondary outcomes were major adverse cardiac and cerebral events (MACCE), aortic reoperation, and readmission for any cause.

Results: A total of 396 patients of each group deemed eligible for analysis. The risk of all-cause mortality was lower in the β -blocker group compared with the non- β -blocker group (16.2% vs. 23.7%; hazard ratio [HR] 0.65, 95% confidence interval [CI] 0.47-0.89). The risk of MACCE was lower in the β -blocker group compared with the non- β -blocker group (19.2% vs. 29.0%; HR 0.61, 95% CI 0.46-0.82). Survival curves of β -blocker users were compared according to number of prescription days and showed that more days of β -blocker usage was associated with a lower risk of mortality (adjusted *P* for linear trend < 0.001)

Conclusions: β -blocker usage had a protective effect on long-term outcomes in patients after surgical repair of acute type A aortic dissection. Strict medication adherence of β -blocker therapy was associated with a survival benefit.

Evaluation of left ventricular (LV) size and function are by far the most common reasons for performing echocardiography in the adult patient. Important diagnostic, prognostic, and treatment decisions rest upon LV morphology analysis; the widespread bedside availability, cost, and non-invasive nature of echocardiography

has meant that this technique has become the method of choice in most situations for performing this analysis. However, both M mode and two dimensional (2D) echocardiography make important geometric assumptions about the LV which leads to inaccuracies in measurements.

Three dimensional (3D) echocardiography has been available for several years using time consuming and difficult reconstruction techniques (often utilising transoesophageal studies). However, recent advances in computer processing and transducer construction techniques have meant that real time transthoracic 3D echocardiography is now available from major ultrasound system manufacturers. Software programs to analyse 3D datasets of the LV are also now readily available; this combination of new instrumentation and software has been shown to provide highly accurate (compared to CMR) analysis of LV morphology and function, such that this methodology is likely to ensure that echocardiography remains the first choice technique for non-invasive evaluation of the LV.

Abstract: 劉維新 Liu Wei-Shin

The diagnosis and treatment of pulmonary artery hypertension (PAH) has significantly progressed in the past few decades. Our understanding of this disease grew significantly via several randomized controlled trials (RCTs), non-controlled studies, and worldwide

registries. Most of current available data were collected from western countries and hence this talk aims to give an overview picture of the idiopathic pulmonary artery hypertension (iPAH) in Taiwan through the review of limited published studies.

Small aortic annulus increases risk of patient-prosthesis mismatch after aortic valve replacement and is not uncommon in Asian population. This section will cover the various prosthesis choices and technical options in patients with small aortic root at different age and risk groups, including the rising role of transcatheter valve replacement in this situation.

Heart failure & cancer - which came first?

Does cardio-oncology and onco-cardiology means the same thing ? Cardio-oncology is the science to study the cardiovascular complications caused by cancer-related treatments and how to early detect , diagnose and treat the complications. However, does heart failure increase the rate of cancer? If so, is it a complication or cause? Let's discuss it in this section.

TSOC 2019

Vascular Examination and Guidance with Handheld Ultrasound



Handheld ultrasound can improve care

quality in patients with cardiovascular diseases.

With the advent of new devices, handheld ultrasound now can be used to perform bedside examinations to the heart, lungs, abdomen, and vascular structures. In this lecture of TSOC 2019, we report our experience and protocols using handheld ultrasound.

Vascular examination and guidance

Handheld ultrasound can provide quick and real-time evaluation of the depth, route, and limited luminal anatomy of the peripheral artery and veins. Although limited with only 2D and color images, it still can serve as a guide for real-time needle puncture and for deep vein thrombosis examination.

Clinical application of vascular ultrasonography

in adolescent cardiovascular disease

Cardiovascular disease generally manifests in adulthood. However, increased morbidity and mortality have been reported in adults if the process of atherosclerosis began since early childhood. Several studies have indicated endothelial dysfunction is the earliest indicator of cardiovascular disease, and its presence highly predicts cardiovascular events in the early disease stages. Noninvasive vascular ultrasonography are currently being established to evaluate endothelial function in the pediatric population, including carotid intima media thickness (cIMT), flow-mediated dilation (FMD), and arterial stiffness. Arterial stiffness can be measured by pulse wave velocity (PWV) to predict future cardiovascular events.

American Heart Association had established a cardiovascular disease risk stratification schema including high risk conditions (eg. types 1 and 2 diabetes mellitus, chronic kidney disease, having received a heart transplant and Kawasaki disease (KD) with current coronary aneurysms) and moderate risk conditions (eg. KD with regressed coronary aneurysms, chronic inflammatory disease (eg, systemic lupus erythematosus (SLE)), human immunodeficiency virus infection and Nephrotic syndrome). Besides, childhood adiposity is also an increasingly prevalent public health problem in Taiwan. Increased morbidity and mortality have been reported in adults with a history of childhood obesity. Therefore, we used vascular ultrasonography to see the relationship of endothelial dysfunction and the underlying disease in children.

We found noninvasive vascular ultrasonography could be a useful tool to detect endothelial dysfunction in pediatric patients. In patients with SLE, we could evaluate the disease activity by decreased FMD and elevated arterial stiffness of common carotid artery. We also can find the endothelial dysfunction in patients with KD even if the coronary artery sizes seemed to be normal. For the children with adiposity, diet control and exercise were suggested because adverse effect on endothelial function had found since childhood. By using noninvasive vascular ultrasonography, early detection and control endothelial dysfunction may reduce cardiovascular complications in further life.

Propolis from Stingless Bees (*Heterotrigona Itama*) Exerts Cardiovascular

Protection in Streptozotocin-Induced Diabetic Rats: Beyond Antioxidant and Antihyperglycemic

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Abstract

Diabetes mellitus complicated by macroangiopathy and cardiomyopathy through hyperglycaemia and oxidative stress. Propolis from stingless bees (*Heterotrigona itama*) possesses antihyperglycemic and antioxidative activities. However, the cardiovascular effect of propolis has yet investigated. This research aimed to determine the outcome of propolis supplementation on redox profile, histology and functional status of aortic and cardiac tissues in streptozotocin-induced diabetic rats. Male Sprague Dawley rats assigned into five groups (n=8/group): control, untreated diabetes (DM), metformin-treated diabetes (DM+Met, 300 mg/kg/day), propolis-treated diabetes (DM+P, 300 mg/kg/day) and combination treatments (DM+Met+P, dosage as former). Rats were rendered diabetic using streptozotocin (60 mg/kg, intraperitoneal) and treated immediately upon successful diabetic induction. After four weeks, rats were sacrificed with the procurement of aorta and heart. Tissue samples were processed, respectively, into 10% homogenates to measure the level of superoxide dismutase (SOD), catalase (CAT), glutathione peroxidase (GPx) and soluble receptor for advanced glycation end-products (sRAGE); and paraffin tissue blocks for histopathological analysis. *Ex-vivo* tissue bath assay performed using the aortic segment to determine cumulative relaxation towards graded concentration of acetylcholine. The *in vitro* vasorelaxation by propolis were examined in the presence of L-NAME (10^{-4} M), methylene blue (10^{-5} M), indomethacin (10^{-5} M) and elevated glucose (25 mM). Propolis supplementation improved glycaemic control and redox profile in cardiac and aortic tissues in diabetic rats. Propolis ameliorated diabetic-induced aortic intimal thickening, cardiac hypertrophy and interstitial fibrosis. The preservation of endothelial-dependent vasodilation by propolis mediated through nitric-oxide cGMP signalling. In conclusion, antioxidative and antihyperglycemic propolis demonstrates cardiovascular protection in diabetic rats.

Abstract

Objectives: This study sought to evaluate the diagnostic performance of quantitative flow ratio (QFR) in assessing functional significance of non-culprit vessels in acute myocardial infarction (AMI), using QFR assessment of stenoses in stable ischemic heart disease (SIHD) as a reference.

Background: Angiography-derived computational QFR has demonstrated a high diagnostic accuracy in predicting fractional flow reserve (FFR). However, data regarding the reliability of QFR in evaluating functional significance of non-culprit stenosis in patients with AMI is scarce.

Methods: 105 non-culprit vessels from 82 AMI patients and 254 vessels from 182 SIHD patients who underwent FFR and QFR measurement were included in the current study. In AMI patients, FFR in non-culprit vessels was measured during index procedure. Contrast QFR, derived from 3-dimensional quantitative coronary angiography (3D QCA) combined with Thrombolysis in Myocardial Infarction frame-counts, was compared with FFR as a reference standard in both non-culprit vessels of AMI and vessels of SIHD.

Results: Mean percent diameter stenosis (%DS), FFR, and contrast QFR were $61.2\pm 4.1\%$, 0.78 ± 0.13 , and 0.78 ± 0.13 for non-culprit vessel with AMI, and $49.9\pm 19.8\%$, 0.81 ± 0.12 , and 0.82 ± 0.14 for vessel with SIHD, respectively. Contrast QFR strongly correlated with FFR in both non-culprit vessel of AMI ($r=0.858$, $p<0.001$) and vessels of SIHD ($r=0.857$, $p<0.001$) (p for difference= 0.974). Contrast QFR showed high diagnostic accuracy to predict $FFR\leq 0.80$ in both non-culprit vessels of AMI (93.3%, 95% CI 86.8-97.3%) and SIHD (89.8%, 95% CI 85.4-93.2%) (p for difference = 0.300). Among various anatomic or physiologic indices (%DS, percent area stenosis by 3D QCA, instantaneous wave-free ratio, fixed QFR, and contrast QFR), contrast QFR showed the highest c-index to predict $FFR\leq 0.80$ in both non-culprit vessels of AMI (0.967, 95% CI 0.936-0.999) and SIHD (0.946, 95% CI 0.919-0.974) than other indices. The changes of FFR and contrast QFR according to increased stenosis severity were similar in both non-culprit of AMI and SIHD (overall comparison $p=0.209$ and 0.404 , respectively).

Conclusion: Contrast QFR showed excellent correlation and diagnostic accuracy with invasive FFR in evaluating non-culprit stenosis of AMI patient, and diagnostic performance of contrast QFR was not different between non-culprit vessels of AMI and SIHD patients.

Key Words: Acute Myocardial Infarction; Fractional Flow Reserve; Quantitative Flow Ratio; Computational Fluid Dynamics; 3-Dimensional Quantitative Coronary Angiography.

Myocardial Technetium-99m sestamibi washout rate is useful to predict left

ventricular reverse remodeling in patients with dilated cardiomyopathy

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Background: Previous reports indicated that myocardial Technetium-99m sestamibi (^{99m}Tc -MIBI) washout rate (WR) is related to mitochondrial function in patients with dilated cardiomyopathy (DCM). In patients with DCM, left ventricular reverse remodeling (LVRR) is a maker of favorable prognosis. However, an association between mitochondrial function and LVRR has not been well investigated in clinical settings due to difficulty of mitochondrial assessments. We studied whether the ^{99m}Tc -MIBI WR would predict LVRR in patients with DCM.

Methods: Thirty-four DCM patients [age 50 ± 14 years, 27 males, LV ejection fraction (LVEF) $22\pm 7\%$] were studied, undergoing ^{99m}Tc -MIBI imaging and echocardiography. LVRR was defined as an absolute increase in LVEF $\geq 10\%$ leading to LVEF $> 35\%$ within a year. Predictability of the ^{99m}Tc -MIBI WR for LVRR was assessed by Receiver Operating Characteristic analysis.

Results: LVRR was observed in 10 patients. Patients with LVRR had a shorter duration of heart failure (HF) than those without LVRR. LVEF, LV end-diastolic diameter, serum level of B-type natriuretic peptide and medications, including β blockers, were not significantly different between two groups (Table), whereas ^{99m}Tc -MIBI WR was distinctively different (figure). This association remained significant even after adjusting for durations of HF. Sensitivity and specificity of WR to predict LVRR was high (90 and 100%, respectively). **Conclusion:** Preserved ^{99m}Tc -MIBI WR, which is reflective to preserved mitochondrial function, may be a good indicator to identify preserved myocardial reversibility in DCM patients.

How to initiate Cardio-Oncology Program

奇美醫院心臟內科 主治醫師
張瑋婷

Cancer therapy related cardiac dysfunction (CTRCD) has been underscored until recent years. Early detection of minor LV myocardial dysfunction is thus important for predicting LV dysfunction. The Cardio-Oncology has arisen as a novel discipline in clinical medicine worldwide owing to the rapidly advancing treatments for cancer and the associated cardiovascular complications. Anti-cancer therapies can affect the cardiovascular system resulting in hypertension, heart failure, arrhythmias and thrombosis which are responsible for substantial morbidity and mortality in this population. In Chi-Mei Hospital, we started Cardio-Oncology Program focusing on patients with breast cancer and lymphoma since 2014. In the past four years, we enrolled up to 200 patients and performed the comprehensive monitoring not only echocardiography but biomarkers and functional capacity evaluations. Strikingly, the management of cardiovascular risks including patient education truly makes differences in the clinical outcomes. In this talk, I will share our experience of Cardio-Oncology program.

Healthy Fat and Oil: Where is the Evidence?

Wei-Wen Lin, MD. PhD.

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Edible (or cooking) oil is plant, animal, or synthetic fat used in frying, baking, and food flavoring. Cooking oil is typically a liquid at room temperature, although some oils that contain saturated fat, such as coconut oil, palm oil and palm kernel oil are solid. Most animal fats are saturated, in the other side, fats of plants and fish are generally unsaturated. There are variety of cooking oils from plant sources such as olive oil, palm oil, soybean oil, peanut oil and other vegetable oils, as well as animal-based oils like butter and lard. There are strong and linear relationships between saturated fat intake, blood cholesterol levels, and the cardiovascular disease.

American Heart Association advise that saturated fat is a risk factor for cardiovascular disease and recommends switching from saturated to unsaturated fats. A randomized controlled clinical trials by AHA showed that reducing intake of dietary saturated fat and replacing it with monounsaturated and polyunsaturated fats could reduce cardiovascular disease by about 30%, similar to the reduction achieved by statin treatment for maintaining blood cholesterol within normal limits. The consumption of saturated fat is generally considered a risk factor for dyslipidemia, which in turn is a risk factor for some types of cardiovascular disease. Vegetable oils are unsaturated extracted from plants. There are several types of plant oils, distinguished by the method used to extract the oil from the plant. The relevant part of the plant may be placed under pressure to extract the oil, giving an expressed (or pressed) oil. Another method may also be extracted from plants by dissolving parts of plants in water or another solvent. The solution may be separated from the plant material and concentrated, giving an extracted or leached oil. Hydrogenated vegetable oils are high in trans fat, which has been associated with various health problems. They are found in certain types of margarine, ice cream and cookies. Vegetable oils appear to be healthy, while some nutritionists are worried about the high levels of omega-6 in certain oils, there is currently no evidence that they raise the risk of heart disease.

Heart failure & cancer - which came first?

Does cardio-oncology and onco-cardiology means the same thing ? Cardio-oncology is the science to study the cardiovascular complications caused by cancer-related treatments and how to early detect , diagnose and treat the complications. However, does heart failure increase the rate of cancer? If so, is it a complication or cause? Let's discuss it in this section.

Strain should be part of the Comprehensive Echocardiography

With the advancement of speckle tracking imaging, nowadays its applicability expanded to various cardiovascular diseases. Most widely known, strains is more sensitive than the traditional left ventricular ejection fraction in detecting the subtle myocardial dysfunction in patients with different types of cardiomyopathy. Furthermore, regional strains provide a superior power to differentiate the early ischemia induced myocardial dysfunction compared with the naked eye detected regional wall motion abnormalities. In addition, novel techniques including layer specific and three dimensional strains also shed the light on the research of cardiac remodeling in patients with arrhythmia, pulmonary hypertension, cardiotoxicity and receiving different procedures. However, whether performing strain analysis is feasible in our daily practice remains under debate. In this talk, I would share our experiences of using strains in clinical cases and also, a brief review of Taiwanese data.

Cardiology, 2019

DIABETES & HEART FAILURE

14:05-14:35 SATURDAY, MAY 18, 2019

Topic: SGLT2 Inhibitors and Mechanisms of Cardiovascular Benefit

Abstract:

Sodium-glucose cotransporter (SGLT)2 inhibitors have been demonstrated to reduce cardiovascular events in cardiovascular outcome trials. Specifically, reductions in hospitalization for heart failure were observed across a broad range of people with type 2 diabetes with and without established cardiovascular disease.

Several mechanism(s) have been suggested to mediate the cardioprotective benefits of SGLT2 inhibitors, including effects on volume and diuresis, myocardial metabolism and the potentially direct myocardial effects, with some preliminary observations suggesting an effect on myocardial metabolism and adipokine kinetics.

Whether these agents will emerge as treatment approaches in chronic HFpEF, HFrEF or acute heart failure is an important question; two analyses from the DECLARE-TIMI 58 trial extend our understanding of dapagliflozin in individuals with and without a prior MI, and the according heart failure status and baseline ejection fraction. In the first analysis, Remo H. M. Furtado, et al. showed dapagliflozin appeared to reduce both MACE and CV death or HF hospitalization in patients with type 2 diabetes mellitus (T2DM) and prior myocardial infarction (MI). In the second analysis, Kato and colleagues showed dapagliflozin reduce HFrEF in patients with T2DM with and without HFpEF, and reduce CV death and all-cause mortality in patients with HFrEF.

The ongoing trials will also answer the two remaining questions about the potential use of these drugs in patients with heart failure – can they be used in patients without diabetes and can they be used in patients hospitalized with acute decompensation?

Aspirin for the primary prevention of cardiovascular disease

The benefit of aspirin in secondary prevention of myocardial infarction and stroke has been well established, however, its effect in primary prevention setting has remained inconclusive. This had led to contrasting recommendations in guidelines and a decline in prescribing aspirin for primary prevention over the past 5-10 years. The potential benefit in CV risk reduction must be weighed against the increased risk of bleeding. In fact, in lower risk patients, the modest benefit in reducing serious vascular events can be offset by the increased risk of bleeding.

Three studies (ARRIVE, ASCEND, and ASPREE) published in 2018 address the issue of aspirin use in primary prevention. The essential points are summed up based on meta-analysis and these trials:

1. Low-dose aspirin might be considered for primary prevention of ASCVD in select higher ASCVD adults aged 40-70 years who are not at increased bleeding risk.
2. Low-dose aspirin should not be administered on a routine basis for primary prevention of ASCVD among adults >70 years.
3. Low-dose aspirin should not be administered for primary prevention among adults at any age who are at increased bleeding risk.

The 2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease is published online March 17. One of the major changes in the guideline is the recommendation on aspirin-“low-dose aspirin now has a IIb recommendation”.

This speech will provide an overview regarding the benefits and harms of aspirin for primary prevention of CVD. There are three main aspects to this topic:

1. Recall earlier aspirin primary prevention trials and meta-analysis
2. Discuss the most recent data regarding aspirin use for primary prevention
3. Current guideline recommendations for aspirin primary prevention in general and diabetic patients.

In conclusion, aspirin remains an important medication for acute management of vascular events; for use after certain procedures; for secondary prevention; and, after careful selection of the right patients, for primary prevention. The decision to prescribe aspirin should be made on an individual (patient-by-patient) basis through a process of shared decision making by the patient and health care provider after assessment of the benefit-to-risk profile of the patient.