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10:40 12:00	超音波掃描指引 (II) **(P.2)**	Prevention **(P.4)**	青年醫師職涯發展論壇 **(P.6)**	Joint Session on Pediatric and Cardiovascular Surgery **(P.8)**
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13:40 15:00	TSOC-AHA Masterclass for Heart Failure 大師班 (I) **(P.9)**	Fighting Hypertension Through Sodium Reduction and Potassium Supplement **(P.11)**	Update of Device and Bradycardia Management **(P.13)**	Cardiovascular Surgery **(P.15)**
15:00 15:20	Healthy Break			
15:20 16:40	TSOC-AHA Masterclass for Heart Failure 大師班 (II) **(P.10)**	**Application and Future Prospects of Artificial Intelligence in Cardiovascular Healthcare** **(P.12)**	TSOC-NCHCPF* Joint Session **(P.14)**	Adult Structural Heart Disease **(P.16)**
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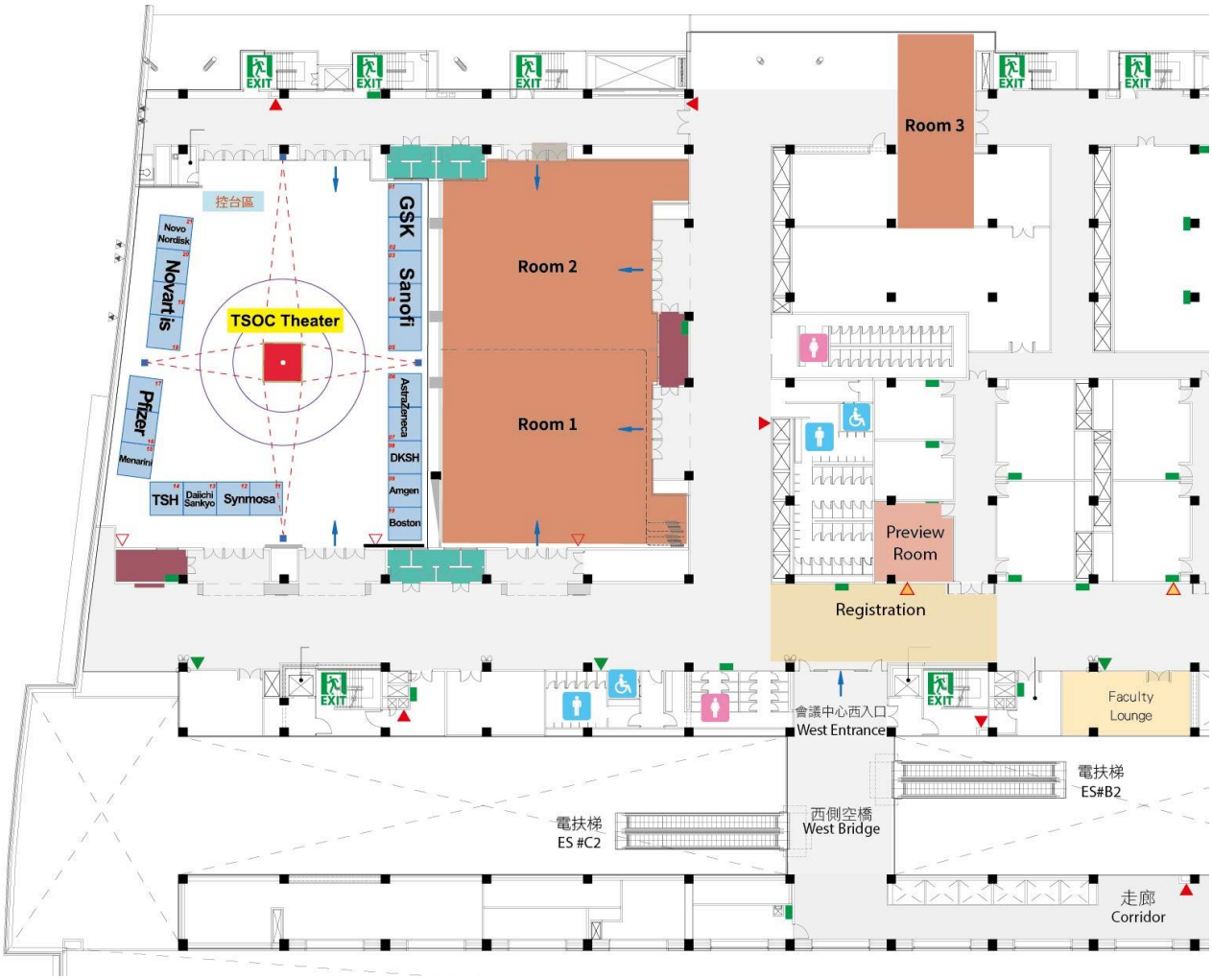
10:20 10:40	Healthy Break			
10:40 12:00	2024 ESC/AHA Practical Guidelines **(P.18)**	MRA for Heart Failure **(P.20)**	Update of AF Management **(P.22)**	
12:10 13:30		Luncheon Symposium [Moderna] **(P.31)**	Luncheon Symposium [Novo Nordisk] **(P.32)**	

會場平面圖


Room 3
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控台區
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Novo Nordisk
Novartis
Pfizer
Menarini
GSK
Sanofi
AstraZeneca
DKSH
Amgen
Boston
TSH
Daiichi Sankyo
Synmosa
Preview Room
Registration
Faculty Lounge
會議中心西入口
West Entrance
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12月21日〈星期六〉09:00-10:20 SATURDAY, DECEMBER 21, 2024

高雄展覽館 (Kaohsiung Exhibition Center) 3F, TSOC Theater

超音波掃描指引研討會(I)

09:00 Opening Remarks..... 洪明銳 (Ming-Jui Hung)

Chair: 林隆君(Lung-Chun Lin)

09:05 收縮功能/ 舒張功能 ..... 陳美綾 (Mei-Ling Chen)

09:25 Q & A

Chair: 蔡惟全(Wei-Chuan Tsai)

09:30 TV, PV, Right Heart ..... 李文煌 (Wen-Huang Lee)

09:50 Q & A

Chair: 李香君(Hsiang-Chun Lee)

09:55 主動脈瓣狹窄 ..... 蕭奕穎 (Yih-Ying Siow)

10:15 Q & A

高雄展覽館 (Kaohsiung Exhibition Center) 3F, TSOC Theater

超音波掃描指引研討會(II)

Chair: 余文鍾(Wen-Chung Yu)

10:40 主動脈逆流，機器設定 ..... 張皓智 (Hao-Chih Chang)

11:00 Q & A

Chair: 梁馨月(Hsin-Yueh Liang)

11:05 二尖瓣狹窄 ..... 董承昌 (Cheng-Chang Tung)

11:25 Q & A

Chair: 王俊力(Chun-Li Wang)

11:30 二尖瓣逆流 ..... 盧政諱 (Cheng-Hui Lu)

11:50 Q & A

11:55 Closing Remarks ..... 林隆君 (Lung-Chun Lin)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 1

心腎醫療共識
ACUTE CARDIO-RENAL SYNDROME CONSENSUS

09:00 Opening Remarks..... 吳彥雯 (Yen-Wen Wu)

Chair: 王朝永 (Chao-Yung Wang)

09:05 TSOC-TSN Consensus—What to Know About Cardiorenal Syndrome: Pathophysiology and Biomarkers..... 徐千彝 (Chein-Yi Hsu)

Chair: 黃尚志(Shang-Chih Hwang)

09:20 TSOC-TSN Consensus—How to Stop Cardiorenal Syndrome: Cardiorenal Syndrome Risk Factor Control and Disease Prevention..... 劉冠宏 (Kuan-Hung Liu)

09:35 Q & A

Chair: 張瑋婷 (Wei-Ting Chang)

09:40 TSOC-TSN Consensus—How to Treat When Cardiorenal Syndrome Occurs: Cardiorenal Syndrome Disease Treatment and Complication Management..... 洪崇烈 (Chung-Lieh Hung)

Chair: 楊智宇(Chih-Yu Yang)

09:55 Clinical Scenario: How to Treat My Patients with Cardiorenal Syndrome ..... 洪思群 (Szu-Chun Hung)

10:10 Q & A

10:15 Closing Remarks ..... 余文鍾 (Wen-Chung Yu)

12月21日〈星期六〉10:40-12:00 SATURDAY, DECMBER 21, 2024

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 1

PREVENTION SYMPOSIUM

10:40 Opening Remarks..... 李貽恒 (Yi-Heng Li)

Chair: 陳柏升(Po-Sheng Chen)

10:45 人工智慧結合穿戴裝置在心血管疾病早期篩檢及心臟健康風險識別的運用角色 ..... 劉威廷 (Wei-Ting Liu)

Chair: 王宇澄(Yu-Chen Wang)

11:05 使用穿戴裝置(neuECG)監測皮膚交感神經(SKNA)活性來預測心血管疾病患者的預後 ..... 黃天祈 (Tien-Chi Huang)

Chair: 朱志生(Chih-Sheng Chu)

11:25 穿戴裝置在急性心肌梗塞後住院或居家復健的相關運用 ..... 王朝平 (Chao Ping Wang)

Chair: 許栢超(Po-Chao Hsu)

11:45 Panel Discussion

11:55 Closing Remarks ..... 許栢超 (Po-Chao Hsu)

12月21日〈星期六〉09:00-10:20 SATURDAY, DECEMBER 21, 2024

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 2

台灣肺高壓在亞太地區的位置與挑戰

09:00 Opening Remarks..... 李貽恒 (Yi-Heng Li)

Chair: 林彥宏(Yen-Hung Lin)

09:05 肺動脈高壓的健保政策(從篩檢診斷到治療)：
台灣與亞太其他國家相較之下的優勢與劣勢..... 石崇良 (Chung-Liang Shih)

Chair: 賀萬靖(Wan-Jing Ho)

09:20 肺動脈高壓的臨床照護：
台灣與亞太其他國家相較之下的優勢與劣勢 ..... 許志新 (Chih-Hsin Hsu)

Chair: 吳懿哲(Yih-Jer Wu)

09:35 肺動脈高壓的臨床研究 ..... 吳書豪 (Shu-Hao Wu)

Chair: 吳俊賢(Chun-Hsien Wu)

09:50 肺動脈高壓的基礎研究 ..... 蔡宗能 (Tsung-Neng Tsai)

Chair: 朱俊源(Chun-Yuan Chu)

10:05 Panel Discussion

10:18 Closing Remarks ..... 劉維新 (Wei-Shin Liu)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 2

青年醫師職涯發展論壇
心臟科的十字路口:多元職涯選擇

10:40 Opening Remarks..... 陳政瑋 (Zheng-Wei Chen)

Chair: 陳玠宇(Chieh-Yu Chen)

10:45 心臟醫師的獨立征途：
開業實踐中的挑戰與機遇 ..... 陳盈志 (Ying-Chih Chen)

Chair: 林姝含(Donna Shu-Han Lin)

11:05 科研裡的心跳聲：
心臟科基礎研究的發現之旅 ..... 葉志凡 (Chih-Fan Yeh)

Chair: 余安立(An-Li Yu)

11:25 醫學專業與商業智慧：
藥商顧問職涯中的心臟科醫師新視角 ..... 鍾一瑋 (Yi-Wei Chung)

Chairs: 余安立(An-Li Yu)、張捷宇(Chieh-Yu Chang)、盧雅雯(Ya-Wen Lu)

11:45 Panel Discussion

11:55 Closing Remarks ..... 李貽恒 (Yi-Heng Li)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 3

SYMPOSIUM ON PEDIATRIC CARDIOLOGY

09:00 Opening Remarks..... 傅雲慶 (Yun-Ching Fu)

Chair: 鍾宏濤(Hung-Tao Chung)

09:05 Recent Advances in Pediatric PAH..... 戴任恭 (Zen-Kong Dai)

Chair: 鄭敬楓(Ching-Feng Cheng)

09:20 Genetics of PAH..... 李妮鍾 (Ni-Chung Lee)

Chair: 葉樹人(Shu-Jen Yeh)

09:35 Management of PAH in Congenital Heart Diseases .....邱舜南 (Shuenn-Nan Chiu)

Chair: 簡邵如(Shao-Ju Chien)

09:50 Management of PAH in Bronchopulmonary Dysplasia..... 王玠能 (Jieh-Neng Wang)

Chair: 李星原(Hsing-Yuan Li)

10:05 Panel Discussion

10:15 Closing Remarks..... 吳俊仁 (Jiunn-Ren Wu)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 3

JOINT SESSION PEDIATRIC CARDIOLOGY AND CARDIAC SURGERY

10:40 Opening Remarks..... 王主科
(Jou-Kou Wang)

Chair: 林宜君(I-Chun Lin)

10:45 PVR in repaired TOF. .....王主科
(Jou-Kou Wang)

Chair: 林竹川(Chu-Chuan Lin)

11:00 Management of Coronary Fistula..... 王玠能
(Jieh-Neng Wang)

Chair: 潘俊彥(Jun-Yen Pan)

11:15 PVR in repaired TOF ....黃書健
(Shu-Chien Huang)

Chair: 張仁平(Jen-Ping Chang)

11:30 Management of Coronary Fistula..... 吳飛逸
(Wu Fei-Yi)

Chair: 張重義(Chung-I Chang)

11:45 Panel Discussion

11:55 Closing Remarks..... 張重義
(Chung-I Chang)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, TSOC Theater

2024 TSOC-AHA MASTERCLASS FOR HEART FAILURE 大師班 (I)

13:40 Opening Remarks..... 李貽恒 (Yi-Heng Li)

13:42 Introduction..... Paul Heidenreich (U.S.A.)

13:47 Objectives of the Workshop. .....吳彥雯 (Yen-Wen Wu)

Chair: 吳彥雯(Yen-Wen Wu)

13:50 Sharing from an US Expert ..... Paul Heidenreich (U.S.A.)

Emcee/Facilitator:Amy Tam(AHA)

(10 Mins with One Interactive Question for Each Case)

14:30 Sharing from 6 Local Hospitals – Hospital 1

14:45 Sharing from 6 Local Hospitals – Hospital 2

高雄展覽館 (Kaohsiung Exhibition Center) 3F, TSOC Theater

2024 TSOC-AHA MASTERCLASS FOR HEART FAILURE 大師班 (II)

Emcee/Facilitator:Amy Tam(AHA)

(10 Mins with One Interactive Question for Each Case)

15:20 Sharing from 6 Local Hospitals – Hospital 3

15:35 Sharing from 6 Local Hospitals – Hospital 4

15:50 Sharing from 6 Local Hospitals – Hospital 5

16:05 Sharing from 6 Local Hospitals – Hospital 6

Chair: 謝宜璋(I-Chang Hsieh)

16:20 What's Next for Quality Improvement?

16:35 Closing Remarks ..... 王宗道 (Tzung-Dau Wang)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 1

FIGHTING HYPERTENSION THROUGH SODIUM REDUCTION AND POTASSIUM SUPPLEMENT: WHAT IS THE EVIDENCE AND EFFECTIVE STRATEGIES?

13:40 Opening Remarks..... 王宗道 (Tzung-Dau Wang)

Chair: 林彥宏(Yen-Hung Lin)

13:42 Sodium Reduction: Current Evidence and Global Guidelines ..... 吳懿哲 (Yih-Jer Wu)

Chair: 許栢超(Po-Chao Hsu)

14:00 Implementing Sodium Reduction in Clinical Practice..... 陳珮蓉 (Pey-Rong Chen)

Chair: 黃青真(Ching jang Huang)

14:18 Community and Public Health Approaches to Sodium Reduction..... 董家堯 (Chia-Yao Tung)

Chair: 林維文(Wei-Wen Lin)

14:36 Innovative Strategies for Reducing Sodium Intake..... 呂廷璋/楊朝棋 (Ting-Jang Lu)/(Chao-Chi Yang)

14:56 Closing Remarks.....鄭浩民 (Hao-Min Cheng)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 1

APPLICATION AND FUTURE PROSPECTS OF ARTIFICIAL INTELLIGENCE IN CARDIOVASCULAR HEALTHCARE

15:20 Opening Remarks..... 黃柏勳 (Po-Hsun Huang)

Chair: 黃柏勳(Po-Hsun Huang)

15:25 Steps to Use Artificial Intelligence of Clinical Research and Patient-centered Healthcare in Cardiology - FEMH Experience Sharing..... 吳彥雯 (Yen-Wen Wu)

15:40 Q & A

Chair: 劉秉彥(Ping-Yen Liu)

15:45 Automated Recognition of Regional Wall Motion Abnormalities Through Deep Neural Network Interpretation of Transthoracic Echocardiography..... 黃睦翔 (Mu-Shiang Huang)

16:00 Q & A

Chair: 林錦生(Chin-Sheng Lin)

16:05 Artificial Intelligence Enabled Opportunistic Screening for Cardiovascular Diseases..... 林 嶔 (Chin Lin)

16:20 Q & A

16:25 Closing Remarks..... 林錦生 (Chin-Sheng Lin)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 2

UPDATE OF DEVICE AND BRADYCARDIA MANAGEMENT

13:40 Opening Remarks..... 林亮宇 (Lian-Yu Lin)

Chair: 張坤正(Kuan-Cheng Chang)

13:45 Outcomes of Conduction System Pacing vs Biventricular Resynchronization Therapy in Systolic Dysfunction and Wide QRS: Update of Current Evidence ..... 鍾偉信 (Wei-Hsin Chung)

Chair: 郭任遠(Jen-Yuan Kuo)

14:00 Cardioneuroablation for Vasovagal Syncope: New Approach to Old Problem ..... 張盛雄 (Sheng-Hsiung Chang)

Chair: 柯文欽(Wen-Chin Ko)

14:15 Dual Chamber Leadless PPM: Is It a Final Solution? ..... 游治節 (Chih-Chieh Yu)

Chair: 王俊傑(Chun-Chieh Wang)

14:30 Continuous in Situ Targeted Antibiotics for Late CID Pocket Infection..... 陳儒逸 (Ju-Yi Chen)

Chair: 張坤正(Kuan-Cheng Chang)

14:45 Panel Discussion

Panelists: 葉冠宏(Kuan-Hung Yeh)、蔡適吉(Su-Kiat Chua)
卓士傑(Shih-Jie Jhuo)、林廷澤(Ting-Tse Lin)

14:55 Closing Remarks ..... 張坤正 (Kuan-Cheng Chang)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 2

TSOC-NCHCPF* JOINT SESSION

15:20 Opening Remarks..... 李貽恒 (Yi-Heng Li)

Chair: 黃瑞仁(Juey-Jen Hwang)

15:25 Molecular Mechanisms of Heart Failure Revealed by Single Cell Analysis ..... Issei Komuro (Japan)

Chair: 陳錦澤(Jin-Jer Chen)

16:10 Target Therapy for Atrial Fibrillation According to GWAS Results ..... 蔡佳醍 (Chia-Ti Tsai)

16:35 Closing Remarks..... 黃瑞仁 (Juey-Jen Hwang)

*New Century Health Care Promotion Foundation

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 3

CARDIOVASCULAR SURGERY

13:40 Opening Remarks..... 羅傳堯 (Chwan-Yau Luo)

SESSION I: CAD WITH MODERATE AS

Chair: 張忠毅(Chung-Yi Chang)

13:43 CABG Alone?. .....王植賢 (Chih-Hsien Wang)

Chair: 蔡宜廷(Yi-Ting Tsai)

13:55 CABG+AVR? ..... 宋世英 (Shih-Ying Sung)

14:07 Discussion

Commentators: 康沛倫(Pei-Leun Kang)、葉集孝(Chi-Hsiao Yeh)、蔡孟達(Meng-Ta Tsai)

SESSION II: CAD WITH AF

Chair: 阮俊能(Jun-Neng Roan)

14:19 CABG Alone? ....胡祐寧. (Yu-Ning Hu)

Chair: 謎大中(Ta-Chung Shen)

14:31 CABG+ AF Surgery?..... 陳彥佑 (Yen-Yu Chen)

14:43 Discussion

Commentators: 簡禎彥(Chen-Yen Chien)、吳宣穎(Hsuan-Yin Wu)、魏皓智(Hao-Ji Wei)

14:55 Closing Remarks.....許俊傑 (Chun-Chieh Hsu)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 3

ADULT STRUCTURAL HEART DISEASE

15:20 Opening Remarks..... 高憲立
(Hsien-Li Kao)

Chair: 李應湘(Ying-Hsiang Lee)

15:22 How to Use Snare Device to Facilitate Balloon-expandable Valve (Meril MyVal) in A Horizontal Aorta Bicuspid Aortic Stenosis. ....方修御
(Hsiu-Yu Fang)

Chair: 陳嬰華(Ying-Hwa Chen)

15:37 Top Down Procedure with ACURATE Neo2 ....陳盈憲
(Ying-Hsien Chen)

Chair: 施志遠(Jhih-Yuan Shih)

15:52 Simultaneous Watchman Flx and Amulet LAAO in Case of Large LAA with Thrombus ....許榮城
(Jung-Cheng Hsu)

Chair: 黃睦翔(Mu-Shiang Huang)

16:07 Image Nightmare for Tricuspid TEER: A Patient with Severe TR Along with Mechanical Mitral and Aortic Prosthesis..... 李慶威
(Ching-Wei Lee)

Chair: 劉尊睿(Tsun-Jui Liu)

16:22 Unicorn Procedure for High Risk of Coronary Obstruction in TAVI..... 殷偉賢
(Wei-Hsian Yin)

16:37 Closing Remarks..... 曹殿萍
(Tien-Ping Tsao)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, TSOC Theater

APPLICATION OF DCB IN CORONARY INTERVENTION

09:00 Opening Remarks..... 黃啟宏 (Chi-Hung Huang)

Chair: 王怡智(Yi-Chih Wang)

09:05 Lesion Preparation for DCB Delivery and Identifying Ideal Lesions for DCB ..... 尤士豪 (Shih-hao Yu)

Chair: 郭風裕(Feng-Yu Kuo)

09:20 DCB for De Novo Lesions: Case-Based Discussion..... 李卓翰 (Cho-Han Lee)

09:35 Discussion

Chair: 蔡政廷(Cheng-Ting Tsai)

09:40 DCB in Bifurcation Lesions: Case Based Discussion ..... 梁懷文 (Huai-Wen Liang)

Chair: 夏建勳(Chien-Hsun Hsia)

09:55 Challenges and limitations in Current DCB Use..... 簡思齊 (Szu-Chi Chien)

10:10 Discussion

10:15 Closing Remarks..... 夏建勳 (Chien-Hsun Hsia)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, TSOC Theater

2024 ESC/AHA PRACTICAL GUIDELINES: FOCUSING ON LOW-EXTREMITY ARTERY AND AORTIC DISEASE: WHAT TO DO OR WHAT NOT TO DO

10:40 Opening Remarks..... 蔡政廷 (Cheng-Ting Tsai)

Chair: 許栢超(Po-Chao Hsu)

10:43 Assessment, Screening and Optimal Medical Therapy for LEAD Patients and Associated Cardiac Disease..... 張獻元 (Hsien-Yuan Chang)

11:05 Q & A

Chair: 李政翰(Cheng-Han Lee)

11:08 The Latest Insights for Chronic Symptomatic Low-Extremity Artery Disease..... 薛書凱 (Shu-Kai Hsueh)

11:30 Q & A

Chair: 吳毅暉(I-Hui Wu)

11:33 The Latest Insights for Aortic Aneurysms, Acute Aortic Syndromes and Genetic Aortic Disease ..... 顏旭霆 (Hsu-Ting Yen)

11:55 Q & A

11:58 Closing Remarks ..... 黃啟宏 (Chi-Hung Huang)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 1

HOTLINES/LATE-BREAKING HF TRIALS FROM 2024 ESC & AHA

09:00 Opening Remarks ..... 李貽恒 (Yi-Heng Li)

Chair: 李道輿(Tao-Yu Lee)

09:05 Cardiomyopathy ..... 王玟樺 (Wen-Hwa Wang)

Chair: 賴文德(Wen-Ter Lai)

09:25 Atrial Fibrillation/Ablation ..... 卓士傑 (Shih-Jie Jhuo)

Chair: 傅懋洋(Morgan Mao-Young Fu)

09:45 Drug Therapy ..... 鍾昇穎 (Sheng-Ying Chung)

Chair: 林宗憲(Tsung-Hsien Lin)

10:05 Panel Discussion ..... All

10:15 Closing Remarks ..... 林宗憲 (Tsung-Hsien Lin)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 1

MRA FOR HEART FAILURE

10:40 Opening Remarks ..... 謝宜璋 (I-Chang Hsieh)

Chair: 許勝雄(Sheng-Hsiung Sheu)

10:45 Epidemiology of Heart Failure in Taiwan ..... 洪崇烈 (Chung-Lieh Hung)

Chair: 蔡惟全(Wei-Chuan Tsai)

11:05 Steroidal MRA ..... 陳柏升 (Po-Sheng Chen)

Chair: 李香君(Hsiang-Chun Lee)

11:25 Non-steroid MRA ..... 吳韋璁 (Wei-Tsung Wu)

Chair: 林宗憲(Tsung-Hsien Lin)

11:45 Panel Discussion ..... All

11:55 Closing Remarks ..... 林宗憲 (Tsung-Hsien Lin)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 2

青年醫師 AI 論壇
AI 與心臟的邂逅：從臨床到研究的全新篇章

09:00 Opening Remarks..... 陳政瑋 (Zheng-Wei Chen)

Chair: 劉宜學(Yi-Hsueh Liu)

09:05 解鎖 AI 工具：學習與實踐 ..... 許栢超 (Po-Chao Hsu)

Chair: 劉家豪(Chia-Hao Liu)

09:25 生成式 AI 在臨床醫療中的創新應用 ..... 張詩聖 (Shih-Sheng Chang)

Chair: 宋亨佑(Heng-You Sung)

09:45 AI 輔助論文寫 2 作的工具與策略 ..... 曾炳憲 (Bing-Hsiean Tzeng)

Chairs: 曾致學(Chih-Hsueh Tseng)、柯呈諭(Cheng-Yu Ko)、許如瑩(Ju-Yin Hsu)

10:05 Q & A

10:15 Closing Remarks ..... 李貽恒 (Yi-Heng Li)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 2

UPDATE OF AF MANAGEMENT

(English section, joint section with 跨世紀醫療促進基金會)

10:40 Opening Remarks..... 曹玄明 (Hsuan-Ming Tsao)

Chair: 蔡佳醍(Chia-Ti Tsai)

10:45 Pathogenesis of AF Revealed by GWAS and iPS Studies ..... Issei Komuro (Japan)

Chair: 林彥璋(Yenn-Jiang Lin)

11:00 Thermal and Nonthermal Energy for AF Ablation: What's New and What's Future?..... 簡育珊 (Yu-Shan Chien)

Chair: 林永國(Yung-Kuo Lin)

11:12 Anticoagulation for Stroke Prevention in Device-detected Silent AF? Is there a Sweat Spot? ..... 陳煌中 (Huang-Chung Chen)

Chair: 謝育整(Yu-Cheng Hsieh)

11:24 Persistent AF Ablation: Do New Trials Tell a Different Story?..... 李政鴻 (Cheng-Hung Li)

Chair: 葉勇信(Yung-Hsin Yeh)

11:36 AF Ablation in Severe HFrEF: Who and How?..... 巫龍昇 (Lung-Sheng Wu)

Chair: 陳永隆(Yung-Lung Chen)

11:48 Panel Discussion

Panelists: 林永國(Yung-Kuo Lin)、張伯丞(Po-Cheng Chang)、江承鴻(Cheng-Hung Chiang)、李柏增(Po-Tseng Lee)

12:00 Closing Remarks ..... 林彥璋 (Yenn-Jiang Lin)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 3

JOINT COMMITTEE OF CRITICAL CARE MEDICINE CERTIFIED COURSE

〔**REGISTRATION ONLY**〕

SESSION I: ESSENTIAL PRACTICAL DECISION MAKING IN CRITICAL CARDIOVASCULAR DISEASE

09:00 Opening Remarks..... 謝宜璋 (I-Chang Hsieh)

Chair: 陳大隆(Da-Long Chen)

09:05 Mechanical Circulatory Support (MCS) vs Pharmacological Strategy in Patients with Cardiogenic Shock ..... 吳勃銳 (Po-Jui Wu)

Chair: 林昌琦(Chang-Chyi Lin)

09:45 Anti-thrombotic Strategy in ACS Patients with Multiple Comorbidities (such as Pulmonary Embolism, Paroxysmal Atrial Fibrillation, ischemic bowel, etc)..... 林新進 (Shin-Jing Lin)

10:25 Closing Remarks ..... 黃群耀 (Chun-Yao Huang)

SESSION II: ESSENTIAL PRACTICAL PARAMEDICAL STRATEGY IN CRITICAL CARE MEDICINE

10:30 Opening Remarks..... 許志新 (Chih-Hsin Hsu)

Chair: 張維典(Wei-Tien Chang)

10:35 Vitamin D Depletion Contributes to Clinical Deterioration Among Critically Ill Patients with Cardiovascular Diseases .... 韓吟宜 (Yin-Yi Han)

Chair: 辛和宗(Ho-Tsung Hsin)

11:15 End-of-Life Care, Shared Decision Making and Time-limited Trials in ICU ..... 陳志金 (Che-Kim Tan)

11:55 Closing Remarks ..... 王晨旭 (Chen-Hsu Wang)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, TSOC Theater

LUNCHEON SYMPOSIUM: CARDIO-KIDNEY-METABOLIC CROSSTALK #AZYWHERE (AstraZeneca)

12:10 Opening Remarks..... 謝宜璋 (I-Chang Hsieh)

Chair: 謝宜璋(I-Chang Hsieh)

12:15 Implementation of SGLT2 Inhibitors in CKM Management: From Guidelines to Bedside Practice ..... 吳彥雯 (Yen-Wen Wu)

Chair: 許惠恒(Wayne Huey-Herng Sheu)

12:40 Kidney Protection: Who, When, and How? ..... 黃尚志 (Shang-Jyh Hwang)

13:05 Panel Discussion

13:25 Closing Remarks ..... 許惠恒 (Wayne Huey-Herng Sheu)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 1

LUNCHEON SYMPOSIUM: HOLISTIC CARDIOVASCULAR DISEASE MANAGEMENT

(Daiichi Sankyo)

12:10 Opening Remarks..... 劉秉彥 (Ping-Yen Liu)

Chair: 劉秉彥(Ping-Yen Liu)

12:15 CLEAR NOW! Achieve LDL-C Goal with First in Class Oral Lipid Lowering Therapy..... 林宗憲 (Tsung-Hsien Lin)

Chair: 陳志成(Zhih-Cherng Chen)

12:40 The EPIC-CAD Trial: Turning Insights into Action..... 林柏霖 (Po-Lin Lin)

13:05 Panel Discussion

13:25 Closing Remarks..... 陳志成 (Zhih-Cherng Chen)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 2

LUNCHEON SYMPOSIUM: INCLISIRAN: THE FIRST AND ONLY SIRNA THERAPY FOR SUSTAINED LDL-C CONTROL

(Novartis)

12:10 Opening Remarks..... 李貽恒 (Yi-Heng Li)

Chair: 李貽恒(Yi-Heng Li)

12:15 What Can We Know Inclisiran From Asian Data and Clinical Experience..... 江晨恩 (Chern-En Chiang)

12:45 Unpacking the siRNA Mechanism of Inclisiran: How Targeted Gene Silencing Lowers LDL-C..... 王宗道 (Tzung-Dau Wang)

13:15 Panel Discussion

13:25 Closing Remarks..... 李貽恒 (Yi-Heng Li)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, TSOC Theater

EVENING SYMPOSIUM: HOLISTIC MANAGEMENT OF AF AND ATTR-CM

(Pfizer)

16:40 Opening Remarks..... 許志新 (Chih-Hsin Hsu)

Chair: 許志新(Chih-Hsin Hsu)

16:45 Leveraging Data: The Patient Path to Optimal Outcomes in ATTR -CM..... 王俊力 (Chun-Li Wang)

Chair: 王光德(Kuang-Te Wang)

17:15 Know Your Weapons: The Update and Utilization of Oral Anticoagulants in Atrial Fibrillation ..... 林宗憲 (Tsung-Hsien Lin)

17:45 Panel Discussion

17:55 Closing Remarks ..... 王光德 (Kuang-Te Wang)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 1

EVENING SYMPOSIUM:
ONE MOVE CAN CHANGE THE OUTCOME
(Bayer)

16:40 Opening Remarks..... 劉秉彥 (Ping-Yen Liu)

Chair: 劉秉彥(Ping-Yen Liu)

16:50 One Move Can Change the Outcome:
nsMRAs as a Novel Pillar for Cardiorenal Protection ..... 江晨恩 (Chern-En Chiang)

17:40 Panel Discussion

17:55 Closing Remarks ..... 劉秉彥 (Ping-Yen Liu)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 2

EVENING SYMPOSIUM: SHINGLES PREVENTION AND VACCINE INNOVATION: ESSENTIAL CONSIDERATIONS FOR CARDIOLOGISTS ON SHINGLES AND ADJUVANT TECHNOLOGY (GSK)

16:40 Opening Remarks..... 李貽恒 (Yi-Heng Li)

Chair: 李貽恒(Yi-Heng Li)

16:45 Key Considerations for Preventing Shingles for Cardiologists ..... 林柏霖 (Po-Lin Lin)

17:15 Harnessing the Power of Adjuvants:
How RZV Sets a New Standard in Vaccine Design and Efficacy..... 黃俊凱 (Chun-Kai Huang)

17:45 Panel Discussion

17:55 Closing Remarks ..... 李貽恒 (Yi-Heng Li)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 3

EVENING SYMPOSIUM: CUTTING-EDGE LIPID CONTROL: BREAKTHROUGHS IN CARDIOVASCULAR HEALTH
(Amgen)

16:40 Opening Remarks..... 謝宜璋 (I-Chang Hsieh)

Chair: 謝宜璋(I-Chang Hsieh)

16:45 Strike Early and Strong: The Impact of Immediate Lipid Control in Recent-MI..... 徐千彝 (Chien-Yi Hsu)

17:15 Emerging Therapies in Lipid Management: A Look Ahead ..... 常敏之 (Min-Ji Charng)

17:45 Panel Discussion

17:55 Closing Remarks ..... 謝宜璋 (I-Chang Hsieh)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 1

LUNCHEON SYMPOSIUM: REVOLUTIONIZING CARDIOVASCULAR CARE WITH MRNA BREAKTHROUGHS
(Moderna)

12:10 Opening Remarks..... 葉宏一 (Hung-I Yeh)

Chair: 葉宏一(Hung-I Yeh)

12:15 mRNA Technology: Recent Breakthroughs and Future Directions ..... 盤松青 (Sung-Ching Pan)

Chair: 吳彥雯(Yen-Wen Wu)

12:40 Holistic Care for CVD Patients: Cardiologists' Insights on Respiratory Health..... 林維文 (Wei-Wen Lin)

13:05 Panel Discussion

13:25 Closing Remarks ..... 吳彥雯 (Yen-Wen Wu)

高雄展覽館 (Kaohsiung Exhibition Center) 3F, Room 2

LUNCHEON SYMPOSIUM: TYPE 2 DIABETES AND CARDIOVASCULAR DISEASE TERAPY OF GLP-1 RECEPTOR AGONIST

(Moderna)

12:10 Opening Remarks..... 李貽恒 (Yi-Heng Li)

Chair: 李貽恒(Yi-Heng Li)

12:15 Lizard, Gut, and CKM Health: A Revolution..... 江晨恩 (Chern-En Chiang)

12:50 Patient-Centric Treatment of T2D with ASCVD-where and How Semaglutide Fit?..... 梁懷文 (Huai-Wen Liang)

13:05 Panel Discussion

13:25 Closing Remarks..... 李貽恒 (Yi-Heng Li)

陳美綾 醫師 MD.

現職 Position

• 彰化基督教心臟內科主治醫師及心臟生理檢查室主任

工作經歷 Working Experience

• 2020.02~彰化基督教心臟科主治醫師及心臟生理檢查室主任
• 2022.06~2023.12 美國加州大學舊金山分校心臟科研究員
• 2015.12~2019.12 台中慈濟心臟科主治醫師
• 2013.8~2015.11 花蓮慈濟心臟科主治醫師
• 2013.8~2015.7 花蓮慈濟內科重症加護病房主治醫師
• 2011.8~2013.7 花蓮慈濟心臟科研究員
• 2008.8~2011.7 花蓮慈濟內科住院醫師

證書 Certification

• 心臟內科專科醫師證書
• 重症醫學專科醫師證書
• 心臟血管介入專科
• 內科專科醫師證書 內專醫字第 009250 號
• 醫師證書 醫字第 042622 號

榮譽 Awards

• 2021 彰化基督教醫院教學優良主治醫師
• 2014 韓國心臟年會TCTAP獲得病例報告 第一名
• 2009~2011 花蓮慈濟醫院教學優良住院醫師 第一名
• 2010 花蓮慈濟醫院優良員工

學歷 Education

• 2000.9~2008.7 慈濟大學醫學系

學術發表 Academic Papers

• 2012: *Late Onset Non-Infectious Interstitial Lung Disease Following Bone Marrow Transplantation: A Case Report*; Mei-Ling Chen, Yung-Hsiang Hsu*, En-Ting Chang; *Thorac Med 2012; 27: 43-48*
• 2014: Delayed Infective Endoca*rditis with Mycotic Aneurysm Rupture below the Mechanical Valved Conduit after the Bentall Procedure. Acta Cardiol Sin 2014;30:341-345*
• 2019: *Long-Term Clinical Outcome of Drug-Eluting vs. Bare-Metal Stent Implantation After Percutaneous Coronary Intervention in End-Stage Renal Disease Patients on Hemodialysis - Nationwide Cohort Study in Taiwan. Chen ML, Wu JL, Chen MY, Hsieh TC. Circ J. 2019 May 24;83(6):1239-1246*

基本資料

- 科別:心臟內科
- 醫師姓名: 李文煌醫師 (兼任)
- 性別:男性

資歷

- 國立成功大學臨床醫學研究所碩士
- 中山醫學大學醫學系

經歷

現任

- 麻豆新樓醫院心臟內科兼任主治醫師
- 成大醫院心臟血管內科主治醫師

曾任

- 成大醫院心臟科住院醫師
- 成大醫院心臟科總醫師，研究員
- 成大醫院斗六分院主治醫師
- 衛生福利部台南醫院心臟科主治醫師

專長

- 心臟內科
- 心臟超音波
- 心導管檢查與介入性治療

蕭弈穎醫師

專長

心絞痛、心悸、心律不整、暈厥、高血壓、高血脂、糖尿病、心臟衰竭、冠狀動脈疾病、心導管檢查及介入治療、洗腎瘻管介入治療、心臟超音波、心臟節律器、重症加護醫學、心臟學、一般內科

現任職稱

高雄醫學大學附設中和紀念醫院心臟血管內科主治醫師

學歷

高雄醫學大學醫學系學士

專科執照與學會

中華民國醫師證書

中華民國內科專科醫師

中華民國心臟學會會員

經歷

高雄醫學大學附設中和紀念醫院一般科住院醫師

高雄醫學大學附設中和紀念醫院內科部住院醫師

高雄醫學大學附設中和紀念醫院心臟血管內科總醫師

張皓智 醫師

[簡介]

- 學歷
  - 國立陽明大學醫學系
- 經歷

  經歷：
  - 臺北榮總畢業後不分科住院醫師
  - 臺北榮總內科部住院醫師
  - 臺北榮總心臟內科住院總醫師
- 醫療專長
  1. 心臟衰竭
  2. 冠狀動脈疾病
  3. 肺動脈高壓

董承昌 Cheng-Chang Tung

主治醫師

心臟血管系

一般內科、高血壓、高血脂症、心絞痛、心臟衰竭、心臟超音波、瓣膜性心臟病、心律不整、心臟急重症、冠狀動脈心臟疾病

專長

一般內科、高血壓、高血脂症、心絞痛、心臟衰竭、心臟超音波、瓣膜性心臟病、心律不整、心臟急重症、冠狀動脈心臟疾病

現職

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學歷

中國醫藥大學附設醫院 醫學系 醫學士

經歷

中國醫藥大學附設醫院內科部住院醫師

中國醫藥大學附設醫院內科部總醫師

中國醫藥大學附設醫院心臟血管系研究醫師

中國醫藥大學附設醫院心臟管系主治醫師

台灣內科醫學會專科醫師

盧政諱醫師

心臟血管疾病、心臟血管超音波

醫師資歷

- 現職
    - 林口長庚醫院 心臟內科主治醫師
    - 林口長庚醫院 助理教授級主治醫師

- 學歷
    - 長庚大學 醫學系

- 經歷
    - 林口長庚醫院 心臟內科研究員

- 學會與認證
    - 中華民國心臟學會專科醫師
    - 內科專科醫師

徐 千彝 醫師

現職

副教授，心臟血管內科

主治醫師，臺北醫學大學附設醫院

臺北醫學大學臺北心臟醫學研究中心

學歷

- 2014-2020 國立陽明大學臨床醫學研究所博士
- 2000-2007 國立陽明大學醫學系學士

經歷

- 2023.08- 臺北醫學大學醫學系內科學科副教授
- 2023.09- 臺北醫學大學附設醫院研究部副主任(醫療)
- 2020.01- 台灣高血壓學會第八屆理事
- 2016.11- 臺北醫學大學附設醫院專任主治醫師
- 2020.08-2023.07 臺北醫學大學醫學系內科學科助理教授
- 2014.08-2020.07 國立陽明大學兼任講師
- 2014.07-2016.07 臺北榮民總醫院主治醫師

劉冠宏 職稱 主治醫師 學歷 成臨床醫學研究所 慈濟學醫學系 專 急性腎衰竭、慢性腎衰竭、腎臟替代療法、腎臟炎、電解質異常 重要經歷 現任 成醫院內科部腎臟內科主治醫師 曾任 成醫院內科部住院醫師 成醫院內科部腎臟內科總醫師

洪崇烈醫師

現職

- 馬偕紀念醫院遠距暨居家照護中心主任
- 馬偕紀念醫院心血管中心 超音波影像學兼遠距醫療主任
- 馬偕紀念醫院心血管中心 心臟衰竭暨影像醫學科主任
- 馬偕紀念醫院心血管中心 資深主治醫師
- 教育部部定教授
- 馬偕生醫所教授
- 中華民國醫用超音波學會監事
- 台灣心臟超音波學會監事
- 台灣老人急重症醫學會副秘書長
- 中華民國心臟學會心臟影像委員會委員
- 中華民國心律學會植入性心臟儀器委員會委員
- 中華民國心臟學會(TSOC)、中華民國醫用超音波學會(JMU)、老人急重症(IJG)等雜誌編輯

主要學歷

- 國立臺灣大學醫學院醫學系 醫學士
- 國立臺灣大學公共衛生學院 碩士
- 國立陽明大學臨床醫學研究所醫學博士
- 美國梅奧醫院(Mayo Clinic)心臟衰竭中心訪問學者
- 美國哈佛大學 Brigham and Woman's Hospital 研究員及訪問學者

主要經歷

- 中華民國內科專科指導醫師
- 中華民國心臟內科專科指導醫師
- 中華民國醫用超音波學會指導醫師
- 台灣心臟超音波學會指導醫師
- 心臟電生理暨介入治療專科醫師
- 台灣心血管介入專科醫師
- 馬偕紀念醫院 心臟內科總醫師
- 馬偕紀念醫院 內科住院醫師
- 台灣大學附設醫院 實習醫師

主治項目或專長

- 心血管影像及功能評估、心臟超音波學、心衰竭、心肌病變、植入式心臟儀器監測、遠距醫療

洪思群 醫師

台北慈濟醫院內科部主任

台北慈濟醫院腎臟內科主任

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學歷

台北醫學大學醫學系

ORCID ID

教職

- 教育部部定副教授
- 慈濟大學醫學系助理教授

經歷

- 台北榮民總醫院內科住院醫師
- 台北榮民總醫院內科總醫師

榮譽

- 2010 年腎臟醫學會研究獎

劉威廷 醫師

學經歷

國防醫學院醫學系學士

空軍第六混合聯隊航空醫學醫官

三軍總醫院內科部住院醫師

三軍總醫院內科部心臟內科總醫師

三軍總醫院內科部心臟內科主治醫師

專長學科

成人心臟學

心臟衰竭

高血壓及瓣膜性心臟病

心導管介入性治療

心臟超音波

黃天祈醫師

現任職稱

高雄醫學大學附設中和紀念醫院心臟血管內科檢查室主任
高雄醫學大學附設中和紀念醫院心臟血管內科主治醫師
中華民國心臟學會第 29 屆學術委員會委員
高醫醫訊編輯委員
高雄醫學大學附設中和紀念醫院病歷審查委員會委員
高雄醫學大學附設中和紀念醫院內科部教學委員會委員

學歷

高雄醫學大學醫學系學士
高雄醫學大學公共衛生學碩士

專科執照與學會

中華民國內科專科醫師暨指導醫師
中華民國心臟血管內科專科醫師暨指導醫師
中華民國心臟血管介入專科醫師
台灣介入性心臟血管醫學會會員
中華民國心臟學會心臟衰竭急性後期整合照顧認證課程
中華民國心臟學會冠狀動脈旋磨術認證課程
高雄市糖尿病共同照護網認證
臺東縣糖尿病共同照護網認證
台灣醫學教育學會一般醫學師資完訓

經歷

高雄醫學大學附設中和紀念醫院內科部住院醫師
高雄醫學大學附設中和紀念醫院內科部總住院醫師
行政院衛生福利部恆春旅遊醫院心臟內科主治醫師(醫中計畫支援)
高雄市立民生醫院心臟內科特約醫師
信義醫療財團法人高雄基督教醫院心臟內科特約醫師
中華民國心臟學會第 28 屆心臟影像委員會

王朝平

義大癌治療醫院 內科部 副部長

專長：
介入性心導管檢查及治療(含冠狀動脈氣球擴張術、血管支架置放術、先天性心臟病檢查、周邊血管硬化阻塞與血管廔管阻塞之導管治療)、永久人工心律調節器置放術、心臟超音波檢查 (含經胸前，經食道及即時 3-D 立體心臟超音波)冠狀動脈疾病治療、心臟衰竭治療、瓣膜性心臟病治療、心臟預防醫學治療(含高血壓、高血脂、代謝性症候群)、週邊血管硬化診斷及治療、 昏厥診斷及治療、各種急慢性心臟血管疾病治療
學經歷：
高雄醫學大學畢業
義大醫院心臟內科主治醫師
前高雄長庚醫院心臟內科主治醫師
中華民國心臟學會專科醫師
台灣介入性心臟血管醫學會會員
義守大學生物技術暨化學工程研究所博士
教育部部定教授
義守大學醫學院學士後醫學系專任教授

Curriculum Vitae

Name:

戴任恭（Zen-Kong Dai）

Organization/Institute:

高醫大附設中和紀念醫院小兒心肺科

Current Position:

高雄醫學大學小兒心臟學，胸腔學暨重症學教授

高醫中和紀念醫院小兒心肺科主治醫師

高醫中和紀念醫院肺高血壓跨科治療團隊召集人

Education:

高雄醫學大學醫學博士畢

高雄醫學大學醫學碩士畢

高雄醫學大學醫學士畢

Specialty:

小兒胸腔學、心臟學 、重症學專科醫師

Professional Training and Employment: (Current Professional Experience)

台灣兒童心臟醫學會常務理事

台灣兒童心臟醫學會肺高血壓工作小組召集人

台灣兒童胸腔暨重症醫學會榮譽理事

台灣兒童胸腔暨重症醫學會肺高血壓工作小組召集人

亞洲兒童胸腔醫學會（APPS）常務理事

Information	
Name：Ni-Chung Lee	
Present Position	Attending Physician, Department of Medical Genetics, NTUH Clinical Professor, Department of Pediatrics, College of Medicine, NTU Adjunct Professor, Genome and Systems Biology Degree Program, NTU
Education	2014 Ph.D., Graduate Institute of Clinical Medicine, College of Medicine, National Taiwan University 1999 M.D., Medical College, National Yang-Ming University
Brief Chronology of Employment	2021-now Clinical Professor, Department of Pediatrics, National Taiwan University Hospital, Taipei, Taiwan Adjunct Professor, Genome and Systems Biology Degree Program, NTU 2005- now Attending Physician, Department of Medical Genetics and Pediatrics, NTUH 2016-2021 Clinical associate professor, Department of Pediatrics, National Taiwan University Hospital, Taipei, Taiwan 2013-2016 Clinical assistant professor, Department of Pediatrics, National Taiwan University Hospital, Taipei, Taiwan
Board Certification	2004 Board Certified, Medical Geneticist 2004 Board Certified, Endocrinology and Metabolism 2003 Board Certified, Board of Pediatrics 1999 Medical License, Taiwan
Society	Board member, Down syndrome foundation (2017-) Board member, Taiwan Human Genetic Society (2014-) Board member, Asia Pacific Societyof Human Genetics (2023-) Board member, Society for Neurological Rare Disorders-Taiwan (2019-) Board member, The Association of Chinese Geneticists in America (2023-)
Selective Publications	Kuo CW, Hwu WL, Chien YH, Hsu C, Hung MZ, Lin IL, Lai F, Lee NC. Frequency and spectrum of actionable pathogenic secondary findings in Taiwanese exomes. Mol Genet Genomic Med. 2020 Aug 14:e1455. Wu ET, Hwu WL, Chien YH, Hsu C, Chen TF, Chen NQ, Chou HC, Tsao PN, Fan PC, Tsai IJ, Lin SP, Hsieh WS, Chang TM, Chen CN, Lee CH, Chou YY, Chiu PC, Tsai WH, Hsiung HC, Lai F, Lee NC. Critical Trio Exome Benefits In-Time Decision-Making for Pediatric Patients With Severe Illnesses. Pediatr Crit Care Med. 2019 Jul 1.

CURRICULUM VITAE

Name: **Shuenn-Nan Chiu**

Department: Pediatric

Title: Professor of Pediatrics, College of Medicine, National Taiwan University,
Attending Physician, Department of Pediatrics , National Taiwan University

Professional Education

1990-1997 M.D., National Taiwan University, College of Medicine, Taipei, Taiwan

2004-2011 Ph.D. National Taiwan University, College of Medicine, Institute of Clinical Medicine. Taipei, Taiwan

Training & Experience

1999-2004 Resident and fellowship, Department of Pediatrics, National Taiwan University Hospital

2004- Attending Physician, Department of Pediatrics , National Taiwan University

2005/2~ 2009/8 Lecture professor of National Taiwan University

2009/8~ 2013/7 Assistant professor of National Taiwan University

2013/8~ 2017/7 Associate professor of National Taiwan University

2017/8~ now Professor of National Taiwan University

Honors & Awards

2010 Young Investigator Award of 6th congress of Asian society of pediatric research

2010 Travel Award of 3rd Asia-Pacific congress of pediatric cardiology and cardiac surgery

2012 Young Investigator Best Paper Travel Award of Pediatric Research Journal

2013 Young Investigator Award of Annual Meeting of Taiwan Pediatrics Association

2014 Best Paper Award of Taiwan Society of Cardiology 2014.

2016 SNQ Silver Award- Mend the Heart, Hope Restarts: Multidisciplinary Cardiac Catheterization Team for Congenital Heart Disease

2022 SNQ Bronze Award- Toward a new era in zero-fluoroscopy- Pediatric non-fluoroscopic arrhythmia ablation

Position：

1. director of Taiwan Society of Pediatric Cardiology
2. Director of Intermediate intensive care unit, National Taiwan University Children Hospital

Major Research Interest:

1. Ventricular and atrial arrhythmia in congenital heart disease- mechanism, treatment, genetics
2. Catheter ablation in pediatric arrhythmias
3. Sudden cardiac death and cardiomyopathy
4. Pulmonary hypertension in congenital heart disease

王玠能

職稱	主治醫師
學歷	台北醫學大學醫學系 成大臨床醫學研究所博士
專長	一般小兒科，小兒心臟科，兒童重症，兒童胸腔，兒童急症
重要經歷	現任 成大醫院小兒科主治醫師兼成大醫學院教授 成大醫院小兒部小兒心臟科主任 曾任 成大醫院小兒科住院醫師 成大醫院小兒科總醫師 成大醫院小兒心臟科研究員 台大醫院小兒心臟科代訓研究員

王主科 特聘主治醫師

現職：

臺灣大學醫學院兼任教授

臺大醫院兒童醫院小兒部兼任主治醫師

臺大醫院雲林分院小兒部特聘主治醫師

學歷：

國立台灣大學醫學院醫學系學士(1980)/臨床醫學博士(1993)

經歷：

臺大醫院小兒部住院醫師(1982-1986)

沙烏地吉達法德國王醫院小兒部顧問醫師(1986-1987)

德州兒童醫院小兒心臟科研究員(1991-1992)

臺大醫院兒童醫院小兒部主治醫師(1986-2022)

黃書健 醫師

科室:心臟外科

現職

臺大醫學院外科教授

臺大醫院外科部專任主治醫師

專長

1.先天性心臟病手術

2.先天氣管狹窄

3.小兒心臟外科

4.成年人先天性心臟病

5.重症醫療及機械循環輔助

經歷

臺大醫院教授

臺大醫院專任主治醫師

臺大醫院臨床副教授

臺大醫院心臟外科總醫師

臺大醫院心臟外科研修醫師

臺大醫院心臟外科主治醫師

日本循環器病中心研修醫師

日本岡山大學心臟外科研修醫師

2004 台灣 Walton Lillehei young investigator award

2006 亞洲 Walton Lillehei young investigator award (Japan Osaka)

台灣外科專科醫師

台灣胸腔暨心臟血管外科專科醫師

中華民國心臟專科專科醫師

學 歷

臺灣大學醫學院臨床醫學研究所博士　臺灣大學醫學院醫學系

吳飛逸 (Fei-Yi Wu)

- 學歷:陽明大學醫學院醫學系

現職：

- - 迄今 台北榮民醫院 外科部主治醫師

經歷：

- - 臺北榮民總醫院外科部住院醫師
- - 臺北榮民總醫院外科部住院總醫師
- - 臺北榮民總醫院外科部 研究員
- - 蘇澳榮民醫院 外科部主治醫師
- - 台市立聯合醫院 忠孝院區 心臟血管外科主任
- - 美國哈佛大學附設波士頓兒童醫院心臟外科 研究員

2017-2018

- 醫療專長
    1. 小兒先天性心臟病: 1. 心房中膈缺損 2.心室中膈缺損 3.法洛氏四合症 4.大動脈轉位 5. 主動脈窄縮 6.單一心室手術治療 7.兒童葉葉克腹置入及照護 8. 兒童心律調節器之置放 9. 其他複雜性先天性心臟病
    2. 成人先天性心臟病: 1. 右心室出口重建 2. 三尖瓣膜及肺動脈瓣逆流之修補或置換
    3. 達文西機械手臂微創手術:1. 二尖瓣膜及三尖瓣膜之修補或置換 2. 成人心房中膈修損修補
    4. 成人心臟病: 1. 冠狀動脈繞道手術 2. 瓣膜手術(主動脈瓣膜置換、二尖瓣狹窄及逆流之修補或置換) 3. 心律不整手術 4. 主動脈剝離手術
    5. 腹主動脈瘤手術、周邊血管手術、動靜脈廔管、靜脈曲張手術
- 證照

  台灣外科醫學會專科醫師 台灣胸腔及心臟血管外科學會專科醫師 中華民國心臟學會專科醫師 台灣血管外科學會 專科醫師 中華民國重症醫學會專科醫師

吳懿哲醫師

現職

- 馬偕紀念醫院 心血管預防暨肺循環醫學科主任
- 馬偕紀念醫院心臟內科資深主治醫師兼肺高壓醫療小組召集人
- 馬偕紀念醫院 肺高壓介入小組主任
- 馬偕醫學院醫學系專任副教授

主要學歷

- 中國醫藥大學中醫學系醫學士
- 國立陽明大學醫學院傳統醫藥學所碩士
- 英國布里斯托大學心臟學研究所 (Bristol Heart Institute, University of Bristol, UK) 分子生物學博士
- 義大利波隆納大學 (University of Bologna, Italy) 肺血管疾病碩士

主要經歷

- 內科專科醫師 (專科指導醫師)
- 心臟血管內科專科醫師 (專科指導醫師)
- 歐洲心臟學會 Fellow (FESC)
- 心臟血管介入專科醫師
- 心臟電生理暨介入治療專科醫師
- 中華民國心律學會監事
- 中華民國血脂暨動脈硬化學會副秘書長
- 馬偕紀念醫院醫學教育部主任
- 馬偕醫學院醫學系專任系主任

簡歷

姓名：（中文）吳彥雯 （英文） Yen-Wen Wu

學歷：

(1) 國立臺灣大學醫學系 學士

(2) 國立臺灣大學臨床醫學研究所碩士

(3) 國立臺灣大學臨床醫學研究所博士

現職：

(1) 亞東紀念醫院心臟血管醫學中心主任 (2020/07~迄今)

(2) 亞東紀念醫院心臟內科/核子醫學科主治醫師 (2012/03~迄今)

(3) 國立陽明交通大學醫學院醫學系兼任教授 (2018/08~迄今)

(4) 元智大學醫學研究所合聘教授 (2022/08~迄今)

(5) 臺大醫院核子醫學部/心臟內科兼任主治醫師 (2012/03~迄今)

經歷：

(1) 亞東紀念醫院心臟血管醫學中心副主任 (2015/07~2020/06)

(2) 亞東紀念醫院心臟血管內科主任 (2012/08~2022/06)

(3) 亞東紀念醫院核子醫學科主任 (2012/03~2015/06)

(4) 陽明大學醫學院醫學系教授 (2017/08~2018/07)

(5) 陽明大學醫學院醫學系副教授 (2013/02~2017/07)

(6) 臺大醫院核子醫學部/心臟內科主治醫師 (2004/07~2007/10、2008/11~2010/02)

(7) 臺灣大學 醫學院 放射線科臨床助理教授 (2009/02~2012/02)

(8) 臺灣大學 醫學院 放射線科兼任助理教授(2008/02~2009/02、2012/03~2013/02)

(9) 大醫院新竹分院影像醫學部主任 (2010/03~2012/02)

(10) 台大醫院雲林分院 核子醫學科主任 (2007/11~2008/10)

(11) 日本京都大學/日本北海道大學/附設醫院核醫學分野 Foreign Collaborate

Investigator (2005/11~2006/11)

現任：

- Asian Pacific Society of Cardiology Executive Council Councilor
- Fellow of European Society of Cardiology (FESC)
- Fellow of American College of Cardiology (FACC)
- Fellow of Japanese Circulation Society (FJCS)
- Fellow of Asian Pacific Society of Cardiology (FAPSC)
- 中華民國核醫學會常務理事，台灣皮質醛酮症學會常務理事；中華民國心臟學會、 中華民國血脂及動脈硬化學會、台灣動脈硬化暨血管病醫學會、台灣高血壓學會、 台灣健康醫學協會、

台灣復甦照護學會、台灣心肌梗塞學會等理事；財團法人中華民國心臟基金會董事；中華民國核醫學會（核醫心臟委員會）主任委員、中華民國心臟學會（跨領域委員會）主委、台灣血脂衛教協會秘書長

- 中華民國心臟學會雜誌（Acta Cardiologica Sinica）總編輯，中華民國核子醫學暨分子影像雜誌（Annals of Nuclear Medicine and Molecular Imaging）副總編輯
- 「行政院原子能委員會」、「衛生福利部食品藥物管理署醫療器材諮議會」、「衛生福利部食品藥物管理署智慧醫療器材諮議會」、「衛生福利部國民健康署罕見疾病通報個案查專家」、「全民健康保險特殊材料專家小組」、「財團法人藥害救濟基金會」等專家委員等，並擔任國科會/科技部、原能會研究計畫心血管及核醫領域的計畫審查委員等

研究領域：

(1) Cardiology (2) Internal Medicine (3) Nuclear Medicine (4) Molecular Imaging

重要獲獎紀錄：

1. 全美核子醫學第五十四屆年會青年學者研究獎 (2007/06/06)。
2. 台灣動脈硬化暨血管病醫學會(第二屆)醫學論文獎首獎 (2007/12/01)
3. 中華民國心臟學會第 40 屆青年學者獎入選 (2010/05/20)。
4. 台灣動脈硬化暨血管病醫學會(第五屆)醫學論文獎第二名 (2010/11/28)。
5. 中華民國核醫學學會 2013 年年會海報論文獎首獎及第二名 (2013/10/26)。
6. 第十三屆有庠傑出教授獎 (醫療技術) (2015/8/14)
7. 2017 年中華民國核醫學會雜誌優秀論文獎 (2017/11)
8. Asian Cardiology Section, Gold Prize. 61st Annual Scientific Meeting of the Japanese Society of Nuclear Medicine (JSNM), Nagoya, Japan, Nov 4-6, 2021.
9. 111 年度第二十一屆(2022)中華民國血脂及動脈硬化學會傑出研究論文獎 (2022/09/17-18)
10. 2023 年中華民國心臟學會丁農獎 (2023/05/20-21)
11. 未來科技獎「One Model Fit All: 心肌灌注掃描免常模一站式冠狀動脈狹窄預測系統」(2023/10/14)
12. 第二十屆國家新創獎-學研新創獎「One Model Fit All: 心肌灌注掃描免常模一站式冠狀動脈狹窄預測系統」(2023/12/27)
13. 2024風傳媒AI醫療領航大獎「評審團特別獎」: One Model Fit All: 心肌灌注掃描免常模一站式最佳冠心症診斷治療及預後全模型

論文：2003-2024 : SCI 286 篇，non-SCI: 37 篇

代表性研究成果論文 (10篇) * correspondence

呂廷璋	
職稱	教授
學歷	美國愛荷華州立大學食品科學暨人類營養學系博士（1995）
研究專長	食品化學與分析、穀類化學與加工、食品醣類

蔡佳醍 CHIA-TI TSAI

現職

國立台灣大學附設醫院老年醫學部	主任
國立台灣大學附設醫院內科	主治醫師
國立台灣大學醫學院內科	專任教授

學歷:

國立台灣大學	醫學系	學士
國立台灣大學	臨床醫學研究所	碩士
國立台灣大學	臨床醫學研究所	博士

Case Western Reserve University 博士後研究員
心血管醫工中心

經歷
國立台灣大學附設醫院內科住院醫師-國立台灣大學附設醫院內科住院總醫師-國立台灣大學醫學院內科助理教授-國立台灣大學醫學院內科副教授-國立台灣大學醫學院內科講師-國立台灣大學附設醫院雲林分院內科主任-

王植賢 醫師

科 室

心臟血管外科

現 職

心臟血管外科兼任主治醫師

專長

1.創傷科

2.心臟血管外科

經 歷

臺大醫院外科部心臟血管外科研修醫師

臺大醫院創傷醫學部主治醫師

臺大醫院新竹分院(衛生署新竹醫院)心臟外科主任醫師

美國賓州大學醫學院急救復甦科學中心研究員

美國賓州大學附設醫院心臟外科研究員

學 歷

國立臺灣大學醫學院醫學系畢業

國立臺灣大學醫學院生理學研究所博士班

宋世英　主治醫師

Shih-Ying Sung

現職

三軍總醫院外科部心臟血管外科主治醫師

國防醫學院外科學系專任教師

學歷

國防醫學院醫學系醫學士

國防醫學院醫學科學研究所博士

經歷

海軍航空指揮部航空醫學官

三軍總醫院外科部住院醫師

三軍總醫院心臟血管外科住院

三軍總醫院心臟血管外科總醫師

三軍總醫院急診主治醫師

三軍總醫院松山分院心臟血管外科主治醫師

三軍總醫院澎湖分院心臟血管外科支援醫師

三軍總醫院心臟血管外科加護中心專責主治醫師

教職

教育部定講師

專科

中華民國外科專科醫師

中華民國胸腔及心臟外科專科醫師

中華民國心臟專科醫師

中華民國血管外科專科醫師

中華民國重症專科醫師

胡祐寧

主要學歷

畢業學校	科系所	學位
國立成功大學	醫學系	醫學士

現職

服務機關	服務部門	職稱
成大醫院	外科部心血管外科	主治醫師
國立成功大學	醫學系外科學科	臨床助理教授

經歷

服務機關	服務部門	職稱
成大醫院斗六分院	外科部心血管外科	主治醫師
成大醫院	外科部心血管外科	住院醫師
成大醫院	外科部	住院醫師

專長

臨床	二尖瓣修補手術，心臟瓣膜置換手術，冠狀動脈繞道手術，葉克膜置放，成人性心臟病手術，靜脈曲張手術，洗腎瘻管手術

陳彥佑醫師

心臟外科組、微創心臟手術(冠狀動脈繞道手術、心臟瓣膜修補/置換手術、先天性心臟手術)、主動脈剝離與主動脈瘤手術、動靜脈廔管及化療注射座植入手術

醫師資歷

- 現職
  - 高雄長庚紀念醫院胸腔及心臟血管外科主治醫師
- 學歷
  - 高雄醫學大學醫學系
- 經歷
  - 衛生福利部旗山醫院 心臟血管外科主治醫師
  - 高雄市立民生醫院 心臟血管外科主治醫師
  - 高雄長庚醫院 胸腔及心臟血管外科主治醫師
- 學會與認證
  - 外科醫學會專科醫師
  - 台灣胸腔及心臟血管外科專科醫師
  - 台灣血管外科主動脈支架操作醫師
  - 台灣血管外科專科醫師
  - 台灣心臟血管外科專科指導醫師
- 論文及期刊發表
  - CT characteristics and clinical implications of acute type A aortic intramural hematoma.
    Cardiovasc. Med. 2023 Jan 9;9:1041796. (SCI; IF=5.846; Cardiac & Cardiovascular Systems 43/143).
    Yen HT, Wu CC, Lee YW, Lo CM, Chen YY*.
  - Efficacy and Safety of Veno-Arterial Extracorporeal Membrane Oxygenation in the Treatment of High-Risk Pulmonary Embolism: A Retrospective Cohort Study.
    Front Cardiovasc Med. 2022 Mar 2;9:799488. (SCI; IF=5.846; Cardiac & Cardiovascular Systems 43/143).
    Tsai HY, Wang YT, Lee WC, Yen HT, Lo CM, Wu CC, Huang KR, Chen YC, Sheu JJ, Chen YY*.
  - Right heart thrombus-in-transit in a patient with Evans syndrome: a case report.

Medicine 2021;100:33(e27009). (SCI; IF=1.889; Medicine, General & Internal 99/167).
Yang YC, Chen YY*.

- Aortic Thrombus in a Nonaneurysmal Ascending Aorta.
  Ann Vasc Surg. 2021 Apr; 72:617-626. (SCI; IF=1.466; Surgery 170/211).
  Chen YY*, Yen HT, Wu CC, Huang KR, Sheu JJ, Lee FY.
- Clinical course and outcome of patients with acute pulmonary embolism rescued by veno-arterial extracorporeal membrane oxygenation: a retrospective review of 21 cases.
  J Cardiothorac Surg. 2020; 15:295. (SCI; IF=1.637; Surgery 160/211).
  Chen YY*, Chen YC, Wu CC, Yen HT, Huang KR, Sheu JJ, Lee FY.
- Thoracic Endovascular Aortic Repair for Type A Intramural Hematoma and Retrograde Thrombosed Type A Aortic Dissection: A Single Center Experience.
  Ann Vasc Surg. 2020 May; 65:224-231. (SCI; IF=1.466; Surgery 170/211).
  Chen YY*, Yen HT, Wu CC, Huang DK.
- Natural courses and long-term results of type A acute aortic intramural haematoma and retrograde thrombosed type A acute aortic dissection: a single-centre experience.
  Interact Cardiovasc Thorac Surg. 2020 Jan 1; 30(1):113-120. (SCI; IF=1.905; Surgery 138/211).
  Chen YY*, Yen HT, Lo CM, Wu CC, Huang DK, Sheu JJ.

方修御醫師

1. 冠狀動脈心臟病之支架置放，急性心肌梗塞介入治療 2. 複雜性冠狀動脈心臟病介入治療，左主幹病灶及慢性全阻塞 3. 頸動脈狹窄之支架置放 4. 洗腎動靜脈廔管狹窄介入治療 5. 周邊血管狹窄介入治療 6. 心房中膈缺損關閉術 7. 心因性休克之介入治療 8. 高血壓、高血脂及心臟衰竭之治療

醫師資歷

- 現職
  - 副教授級主治醫師
  - 長庚大學兼任助理教授
- 經歷
  - 介入性心臟學會教育訓練委員會委員
  - 日本倉敷中央病院心導管介入研修
  - 長庚大學醫學系兼任助理教授
  - 高雄長庚紀念醫院心臟內科助理教授級主治醫師
- 學會與認證
  - 中華民國心臟學會
  - 台灣內科醫學會
- 論文及期刊發表
  - Fang HY, Lee CH, Fang CY , Lin CJ, Wu CC, Yang CH, Chen CJ, Hsieh YK, Yip HK, Wu CJ*. Application of penetration device (Tornus) for percutaneous coronary intervention in balloon uncrossable chronic total occlusion ---- Procedure outcomes, complications and predictors of device success. Catheter Cardiovasc Interv 2011;78:356-362

許榮城 醫師

現任

- 亞東紀念醫院 心臟血管內科主任
- 亞東紀念醫院心臟血管內科主治醫師
- 台灣介入性心臟血管醫學會理事
- 台大醫院內科兼任主治醫師
- 翰生聯合診所心臟內科兼任主治醫師

主治項目

- 左心耳封堵術(預防房顫中風)
- 三高（高血壓，高血脂，糖尿病）
- 冠狀動脈疾病及心肌梗塞
- 心導管治療(支架置放術)
- 經導管主動脈瓣膜置換及二尖瓣膜修補術

學歷

- 國立台灣大學醫學院醫學系

經歷

- 住院醫師：台大醫院內科部
- 總醫師：台大醫院內科部
- 研究醫師：台大醫院內科部
- 主治醫師：亞東紀念醫院心臟血管內科
- 兼任醫師：翰生聯合診所心臟內科
- 病房主任：亞東醫院心導管室主任
- 台大醫院心臟科研究員
- 陽明大學醫學系助理教授級臨床教師
- 日本及亞太介入年會座長
- 台灣介入性心臟血管醫學會秘書長
- 中華民國內科醫學會內科專科醫師
- 中華民國心臟學會心臟內科專科醫師
- 中華民國介入性醫學會委員
- 中華民國心臟學會介入委員會委員
- 中華民國介入學會教育委員會委員
- 中華民國心臟學會及介入性學會介入專科聯合甄試口試考官

Name

Che-KimTan 陳志金

Current Position

1.Chief, Department of Respiratory Care Medicine

2.Chief, Sleep Center

3.Attending Physician, Department of Intensive Care Medicine

of Chi Mei Medical Center

Specialty

Respiratory Medicine

Critical Care Medicine

Sleep Medicine

Education

Medicine, National Taiwan University

Experience

Executive Director, Board of Directors, Taiwan Society of Emergency and

Critical Care Medicine

許栢超醫師

現任職稱

高雄醫學大學附設醫院心臟血管內科主治醫師 (2008.8-)

高雄醫學大學內科學科教授 (2021.2-) (教字第 145701 號)

高雄醫學大學附設醫院內科部副主任

高雄醫學大學附設醫院心臟血管內科主任

高雄醫學大學附設醫院醫研部血脂生科研究中心主任

高雄醫學大學附設醫院心臟血管內科加護病房專責主治醫師

中華民國心臟學會雜誌執行編輯 (2015.1-)

TSCI 周邊血管介入委員會委員(副主委)

學歷

高雄醫學大學醫學系學士 (1996.9-2003.6)

高雄醫學大學醫學研究所臨床醫學組碩士(2008.9-2010.7)

高雄醫學大學醫學研究所臨床醫學組博士 (2011.9-2015.1)

專科執照與學會

醫師證書 (民國 92 年)

內科專科醫師證書 (民國 95 年)

心臟學會專科醫師證書 (民國 97 年)

心臟血管介入專科醫師證書 (民國 98 年)

重症醫學專科醫師證書: (民國 100 年)

心臟學會專科指導醫師證書: (民國 103 年)

重症醫學專科臨床訓練指導醫師證書: (民國 104 年)

台灣內科醫學會會員

中華民國心臟學會會員

台灣心臟超音波學會會員

中華民國重症醫學會會員

經歷

高雄醫學大學附設中和紀念醫院實習醫師 (2002.6- 2003.5)

高雄醫學大學附設中和紀念醫院內科住院醫師 (2003.8- 2006.7)

高雄醫學大學附設中和紀念醫院心臟內科總住院醫師 (2006.8-2008.7)

高雄醫學大學附設中和紀念醫院心臟血管內科主治醫師 (2008.8-)

中華民國心臟學會副秘書長 (2014.6- 2016.5)

高雄醫學大學內科學科助理教授 (2013.8-2016.7) (助理字第 038346 號)

高雄醫學

張詩聖 Shih-Sheng Chang

心臟介入治療科主任、人工智慧中心主任

現職

中國醫藥大學附設醫院 內科部心臟血管系 心臟介入治療科 主任

中國醫藥大學附設醫院 人工智慧中心 主任

中國醫藥大學 生醫工程研發中心 主任

中華民國心臟學會 監事

中華民國心臟學會 預防醫學委員會 副主委、甄試委員會 委員

台灣心肌梗塞學會 理事

台灣心肌梗塞學會編輯委員會 委員

學歷

高雄醫學大學 醫學系 學士

中國醫藥大學 臨床醫學研究所 碩士

中國醫藥大學 臨床醫學研究所 博士

經歷

中國醫藥大學附設醫院 內科部心臟血管系 住院醫師

中國醫藥大學附設醫院 內科部心臟血管系 主治醫師

中國醫藥大學附設醫院 內科部心臟血管系心導管室 主任

中國醫藥大學附設醫院 健康醫學中心 主任

中國醫藥大學附設醫院 院長室 主任祕書

台中市醫師公會 常務理事

美國國家衛生研究院 腦神經科學中心臨床資訊學 訪問學者

美國梅約診所 心血管醫學中心 研究員

教職

中國醫藥大學醫學系 助理教授

陳煌中醫師

一般心臟學、心導管檢查、電氣生理學檢查及射頻燒灼術、人工心臟節律器 、

一般內科、心臟超音波

醫師資歷

- 現職
    - 高雄長庚心臟內科副主任
    - 副教授級主治醫師
- 學歷
    - 中山醫學大學醫學系

李政鴻醫師

主治專長

心臟血管疾病、高血壓、心律不整、電生理檢查、心律不整電燒術、複雜性心律不整(先天性或瓣膜性心臟病術後併發之心律不整)、3D 立體定位電燒術(心房顫動及心室頻脈電燒術)、重症醫學

專業經驗

高血壓治療、高血脂治療、心律不整治療、心臟節律器手術及治療

重要經歷/進修訓練

臺中榮民總醫院心臟血管中心代理科主任

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臺北榮民總醫院心臟內科總醫師

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中華民國心臟學會專科會員

教師資格

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姓名

吳韋璁

現任職稱

高雄醫學大學附設中和紀念醫院心臟血管內科主治醫師
中國鋼鐵股份有限公司員工診所 心臟內科 特約醫師
中華民國心臟學會 心衰竭 委員

學歷

高雄醫學大學 醫學系
高雄醫學大學 醫學研究所 碩士

經歷

高雄醫學大學附設中和紀念醫院 內科部住院醫師
高雄醫學大學附設中和紀念醫院 內科部總住院醫師
行政院衛生福利部恆春旅遊醫院 心臟內科主治醫師
枋寮醫療社團法人枋寮醫院 心臟內科主治醫師
高雄醫學大學附設中和紀念醫院心臟血管內科主治醫師

專科執照與學會

中華民國 內科專科醫師暨 內科專科指導醫師
中華民國 心臟內科專科醫師暨 心臟內科專科指導醫師
中華民國心臟學會 心臟血管介入專科醫師
臺灣介入性心臟血管醫學會 會員
中華民國心臟學會冠狀動脈旋磨術認證課程訓練證書
中華民國心臟學會心臟衰竭急性後期整合照顧認證課程
高雄市糖尿病共同照護網認證
台灣睡眠醫學學會會員 暨睡眠專科醫師

Genetics of PAH

Ni-Chung Lee
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Pulmonary arterial hypertension (PAH) is a critical and life-threatening condition that imposes a severe burden on affected children, leading to increased pulmonary arterial pressure and significant morbidity and mortality. The genetic underpinnings of PAH are complex, involving a multitude of genetic mutations and inherited conditions. Key genes implicated in the disease include BMPR2, ALK1, ENG, SMAD9, CAV1, KCNK3, EIF2AK4, ACVRL1, and GDF2, with diagnostic yields ranging from 14-42%. This presentation will provide an in-depth analysis of the genetic etiology of PAH, elucidating how cutting-edge genomic research has uncovered vital insights into its pathogenesis. We will discuss the implications of these genetic discoveries for early diagnosis, risk assessment, and the development of precision medicine strategies. By leveraging these advancements, we aim to improve therapeutic outcomes and quality of life for children suffering from this devastating disease.

Abstract

Tricuspid valve disease and right-side heart disease were previously ignored. With advances in surgical intervention, patient care, and guideline adherence, these disregarded diseases have become essential in patient's survival and comorbidity. For example, patients with tricuspid annulus dilatation will have severe tricuspid regurgitation, right heart failure, and poor prognosis ten or twenty years later if they leave their tricuspid valve untreated during left-side valve surgery. However, most of these patients will not be left untouched because of high surgical risk due to tissue adhesion, elderly, or combination with another chronic disease. Nowadays, percutaneous valvular intervention provides a potential resolution for these patients, which should be brought into Taiwan in the next couple of years. Good echocardiographic imaging is fundamental to a successful procedure. Besides, good echo imaging provides disease diagnosis, risk stratification, monitoring, or follow-up. I am pleased to be invited to draft the portion of the tricuspid, pulmonary valve, and right heart function this year. After months of work with mentors, colleagues, and friends, we agreed on how to image the tricuspid, pulmonary valve, and right-side heart imaging. I will present the results and hope this will help you in the future.

I will divide my topics into three parts. I will start by talking about pulmonary arterial hypertension, then move to right heart function, imaging, and end with tricuspid valve imaging. I will present pitfalls in estimating pulmonary arterial pressure and clarify some plausible ideas, such as fluid status evaluation from the inferior vena cava.

Topic: Echocardiographic Assessment of Aortic Stenosis

Speaker: Yih-Ying Siow 蕭奕穎

Kaohsiung Medical University Hospital 高雄醫學大學附設醫院

Abstract

Echocardiography is the examination of choice for the diagnosis and evaluation of aortic stenosis and is preferred over invasive cardiac catheterization. Echocardiography is not only the recommended tool for pre-operative decision-making, but also essential for follow-up. An accurate and optimal quantification is crucial. Good performance relies on sufficient knowledge to avoid erroneous sampling or misinterpretation. This section provides an overview of aortic stenosis assessment, pitfalls, tips for measurements and grading of severity, and limitations that need to be addressed.

Outline

- Overview of Echocardiographic assessment in aortic stenosis
- Suggestive view in TTE for aortic stenosis
- Pitfalls and Tips in the Assessment of Aortic Stenosis by TTE
    1. Different etiology of aortic stenosis
    2. Common error in calculating aortic valve area
        - LVOT measurement
        - PW LV velocity measurement
        - CW AV velocity measurement
- Alternative Measures of Stenosis Severity
- Grading of aortic stenosis and Special circumstances
- Limitations and reminders

Abstract:

Artificial intelligence (AI) tools like machine learning, deep learning and natural language processing are rapidly advancing and being applied in healthcare. This presentation reviews several AI applications in critical care medicine. First, a deep learning-based tool was developed to classify pain scores in critically ill patients using facial expressions and body movements from video. Three convolutional neural network models were trained and validated using labelled video data from ICU patients, achieving an accuracy of 0.79-0.89 for classifying pain scores. Second, we will discuss the potential application in the near future of large language models like ChatGPT for ICU applications in decision support, data handling, doctor-patient communication, education, and research. Benefits and limitations were highlighted, including the risk of generating false information. Third, the development and

implementation of AI tools at Taichung Veterans General Hospital, with a multidisciplinary team to integrate AI models into clinical workflows via interactive dashboards and alerts. In summary, AI holds promise for many applications in critical care, but successful implementation requires understanding limitations and integrating AI thoughtfully into clinical practice.

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. Both “conventional”, “target” and “immune-oncology” 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. Thus, effective means of mitigating cardiovascular complications of cancer therapies would have benefits on health. In Chi-Mei Hospital, we started Cardio-Oncology Program focusing on patients with breast cancer and lymphoma since 2014. Also, we attempted to establish a translational platform to study the mechanism of CTRCD. In this talk, I will share our experience of Cardio-Oncology program.

Pregnancy-related hypertension includes gestational hypertension, preeclampsia, and eclampsia. Pregnancy-related hypertension contributes to significant risks to both the pregnant mother and the fetus. Effective management and timely medical intervention are essential to ensure the well-being of both the mother and the baby during pregnancy and childbirth. Monitoring blood pressure, urine, and other vital signs, along with lifestyle modifications and, if necessary, medication, are key components of managing pregnancy-related hypertension. In severe cases, early delivery may be required to prevent further complications. Regular prenatal care and communication with healthcare providers are crucial for identifying and addressing this condition promptly. In the postpartum stage, close monitoring and management continue after delivery to ensure that blood pressure returns to normal. Nevertheless, given a lack of clinical trials, the choices of drugs for pregnancy-related hypertension remain limited in the past decades. Also, breastfeeding is another concern for the drug metabolites and secretion. In this talk, I will review the updated information regarding the early detection and appropriate management of pregnancy-related hypertension.

題目: MRA FOR HEART FAILURE -Non-steroid MRA

摘要:

類固醇類礦物皮質激素受體拮抗劑(Steroid MRA)可減少心衰竭合低併射血分數(HFEF)患者的發病率和死亡率，但在射血分數輕度降低或保留的心衰竭(HFmEF/HFpEF)患者中的療效尚未確立。

本研討會藉由 FINEARTS-HF 試驗，探討有關非類固醇類礦物皮質激素受體拮抗劑 (Non steroid MRA) **Finerenone** 在 HFmEF/HFpEF 患者中的療效和安全性數據，。

FINEARTS-HF trial

Primary Endpoint 試驗中顯示出統計學上顯著且臨床上具有意義的效果，能有效降低心血管死亡及心衰事件的綜合風險。

Safety Profile 試驗確認 Finerenone 具有良好的耐受性，未發現新的安全性問題，這與其在其他適應症(例如合併 2 型糖尿病的慢性腎病患者)中的使用結果一致。

Finerenone 是首個在射血分數輕度降低或保留的心衰（HFmrEF/HFpEF）患者中展現出明確心血管益處的礦物皮質激素受體拮抗劑（Non steroid MRA）。因這群患者在心衰患者中佔有顯著比例，尤其對於過去治療選擇有限的心衰竭病患，**Finerenone** 可能在擴大心衰治療方案中扮演重要角色，如此一來 **Finerenone** (Non steroid MRA)也填補了這些心衰竭患者群體的重大治療空白。

Time to Implement OSA Screen and Treatment for Patients in Taiwan – The TSOC/ TSSM/ TSPCCM Joint Consensus

Sleep disordered breathing (SDB) is highly prevalent and may be linked to cardiovascular dis- ease in a bidirectional manner. The Taiwan Society of Cardiology, Taiwan Society of Sleep Med- icine and Taiwan Society of Pulmonary and Critical Care Medicine established a task force of experts to evaluate the evidence regarding the assessment and management of SDB in patients with atrial fibrillation (AF), hypertension and heart failure with reduced ejection fraction (HFrEF). The GRADE process was used to assess the evidence associated with 15 formulated questions. The task force developed recommendations and determined strength (Strong, Weak) and direction (For, Against) based on the quality of evidence, balance of benefits and harms, patient values and preferences, and resource use. The resulting 11 recommendations are intended to guide clinicians in determining which the specific patient-care strategy should be utilized by clinicians based on the needs of individual patients.

Abstract

In the ICU, we are treating the most critically ill patients. Unfortunately, despite our best efforts and the advances in medicine, out of every ten patients, one or two are beyond recovery.

In the past, we considered the loss of these patients as a “failure” for the team, leading to deep sadness and grief. Over time, the ongoing stress and frustration cause some to choose a different career path, leaving the ICU. Those who stay may view it as just a job, feeling that it is unnecessary to dwell in sadness and attempt to “isolate” their emotions, but the patient’s family may perceive this as indifference.

Is there no third option? When facing patients we cannot save, let’s not forget that we can still help their families. We can assist family members in coping with the loss of their loved one, helping them to relieve their feelings of guilt and self-blame. Our compassionate act can provide the family with a memory of solace amid their grief when they reflect back on this moment next year.

When families face difficult decisions and there is disagreement among them, we can invite them to participate in “Shared Decision-Making (SDM).” Many decisions in these situations do not have an absolute right or wrong answer; each family has its own considerations. The focus should be on respecting the patient’s “MVP: what Matters to the patient, his/her Values, and Preferences.” After thorough understanding and communication, the family can make a decision that they will not regret later. If consensus cannot be reached, or if the prognosis remains unclear, we can also implement “Time-Limited Trials” and revisit the discussion later until a new consensus is reached.

In the treatment of critically ill patients at the end of life, our goal is not only to ensure patient comfort and a dignified passing but also to alleviate the family’s guilt, regret, and sorrow. When we can no longer save the patient, let’s not forget to save the family.

Topic: Steps to use artificial intelligence of clinical research and patient-centered healthcare in cardiology

Abstract:

Recent artificial intelligence (AI) advancements in cardiovascular care offer

potential enhancements in effective diagnosis, treatment, and outcomes. More and more clinical available AI-algorithms focus on cardiovascular applications, highlighting the growing opportunities for AI to augment care, with a particular focus on the utilization of multimodal inputs and the field of generative AI. Interest in the application of AI to the design, conduct, and analysis of clinical trials of cardiovascular field has also grown, and it holds great promise for improving the efficiency and quality of clinical care and clinical research; but substantial barriers remain, the surmounting of which will require addressing significant gaps in evidence. This talk will present clinical applications and research in our cardiovascular center, and include a discussion of potentials, and limitations of AI's role, and the appropriate infrastructure for deployment and patient-centered implementation.

WHAT WILL 2024 TSOC PRIMARY PREVENTION OF ASCVD GUIDELINES TELL US：

What's Novel: In Comparison with ACC/AHA and ESC Guidelines

1. The 2024 Guidelines of the Taiwan Society of Cardiology on the Primary Prevention of Atherosclerotic Cardiovascular Disease: for the first time in the society.
2. 2021 ESC Guidelines on cardiovascular disease prevention in clinical practice: focus on a full spectrum of cardiovascular disease; use of SCORE II for risk estimation; comprehensive but too lengthy and without going details in each factor or disease entity.
3. 2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease: focus on a full spectrum of cardiovascular disease; incomprehensive.
4. Novelties of the current guidelines: focus on ASCVD prevention; comprehensive but not wordy with going details in each factor or disease entity; covering local features (metabolic syndrome, hyperuricemia, hepatitis C, colon polyps, nephrolithiasis, and life medicine, etc); cite largely local studies; covering primordial prevention; logistic thinking approach.

Today's talk will cover above issues.

Management of PAH in Congenital Heart Disease

台大醫院小兒部 邱舜南醫師

Modern surgical and cardiac catheterization techniques and methods of perioperative care have changed the outcomes of congenital heart disease (CHD). Currently, most patients survive into adulthood, at which time late complications (especially pulmonary arterial hypertension [PAH]) become important issues. Several large-scale database studies of ACHD in Western countries have returned cumulative

incidences of ~4-7.2% overall, with higher incidence in CHD with large left-to-right shunt defects. In our recent cohort study, the cumulative incidence of PH was 4.4%, varied in different subgroups.

PAH specific therapy has been shown to improve long-term patient outcomes and is considered standard treatment in current guidelines in adult population. Several new drugs has been developed to target on NO pathway, prostacyclin pathway, endothelin pathway and Activin signaling inhibitors. However, most PAH drugs used in pediatrics are off label use. In addition to pulmonary vasodilator treatment, the concept of treat-and-repair and repair-and-treat may modify the course of PAH in CHD. Multimodal approach including medical, interventional and surgical should be considered in individual cases.

Recent advances in Pediatric PH

戴任恭教授

Zen-Kong Dai, MD. PhD

Dept. of Pediatrics, Kaohsiung Medical University, Kaohsiung

In 7th WSPH held at Barcelona in 2024, the definition of pulmonary hypertension was updated to include any pediatric patient with a mean pulmonary artery pressure greater than 20 mm Hg at rest by heart catheterization. Pediatric PH includes a highly heterogeneous group of children with diverse ages, disease severities, prognoses, and underlying causes. On diagnosis, it is important to complete a thorough evaluation for secondary causes of PAH and a cardiac catheterization. Subsequently, the task force for paediatric PH could concluded as follows: 1) Treatment of paediatric PH continues to be hindered by the lack of randomised controlled clinical trials. 2)PH in childhood shows similarities, but also specific differences, compared to PH In adulthood.3) New insights and current consensus regarding the diagnosis and treatment. 4) Paediatric pulmonary arterial hypertension (PAH) shares common features with adult disease, but is associated with several additional disorders and challenges that require unique approaches.

All the survival has improved significantly over recent decades as therapeutic options have increased. More pediatric-specific pediatric pulmonary hypertension seems to be treated successfully. Since there are pathobiologic links between mutations and disease in pulmonary hypertension, and alterations in genetic conditions are important contributors to pediatric pulmonary hypertensive disease. Based on some international consortiums for genetic studies genetic testing in PAH, the

gene panel sequencing approach should start with an affected patient and includes BMPR2 at the minimum if resources available.

In summary, pediatric pulmonary hypertension, quite different from adult pulmonary hypertension, is characterized by multifactorial disease with diverse etiologies and presenting features, and could present feature for several pulmonary vascular diseases. Survival has improved significantly over recent decades as therapeutic options have increased. In the future, we hope that genetic testing could be a critical consideration for potential therapy targets such as gene therapy and influences on response to therapy.

Introduction:

Tricuspid valve regurgitation, previously ignored, now catches more people's eyes. People having tricuspid regurgitation a couple of years after mitral or aortic valve surgery have higher mortality, morbidity, and poor quality of life. However, the increased risk for tricuspid valve repair or replacement makes re-doing thoracotomy unfeasible. Trans-catheter intervention is another fashionable way to treat this kind of patient. Even though they are not available in Taiwan, many devices have promising results on their bench testing. Are you ready to jump on the bandwagon of trans-catheter intervention for tricuspid regurgitation? In this section, I will try to illustrate tricuspid regurgitation from valve anatomy, terminology, classification, imaging approach, and novel grading methods. There are three purposes of this lecture. First, the tricuspid valve has anterior, posterior, and septal leaflets. We must "see" and interpret the tricuspid valve correctly. We must know which one we see is on different echo views. Second, we should discern what kind of disease and how they affect the tricuspid valve. What is the pathophysiology that affects the valve's normal function? Third, the echocardiographer can provide good imaging to select suitable patients, guide intervention, monitor complications during the procedure, and evaluate the result after the intervention.

Left Atrial Appendage Occluder

Patients with atrial fibrillation are at high risk of stroke, and anti-coagulation is recommended. However, anti-coagulation bring bleeding risk, especially GI bleeding or even intracranial hemorrhage.

Left atrial appendage (LAA) is a pouch structure, which contributes blood clot formation. Deployment of a left atrial appendage occlude is a way to prevent blood clot formation in patients with atrial fibrillation and not suitable for anti-coagulation. Left atrial appendage is located anteriorly and above left circumflex artery. Deployment of an occluder is guided by transesophageal echocardiography to perform trans-septal puncture, accurate measurement of ostium of LAA, deployment and complication.

We will discuss it in detail.

Where Is The Infection Source?

A Very Unusual Site of Infective Endocarditis by Transesophageal Echocardiography

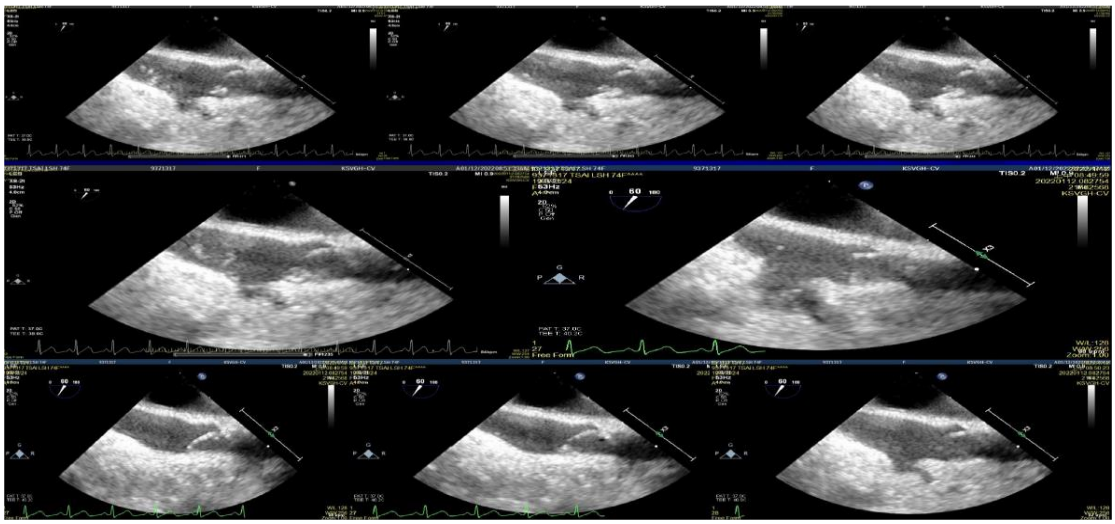
Female, 75 Y/O, DM, uremia, regular HD

Recurrent and relapsing fever

Blood culture: Candida tropicalis persistently

Cardiac valve vegetations: negative findings

Left subclavian artery stenosis after stenting



Hypertrophy Obtruction Cardiomyopathy

A 59-year-old female visited NCKUH on 2017 with the chief complaint of dyspnea on exertion for several years and aggravated in recent two years. She was diagnosed as Hypertrophic Cardiomyopathy with systolic anterior motion with mild MR by the evidence of echocardiography and CMR. Septal ablation or surgical myectomy was suggested but the patient hesitated about it and then she lost to follow up. She went to other hospital and kept medical treatment. From 2017-2021 the dyspnea gradually progressed and the severity of MR also progressed to severe MR. She received ''Mitral annuloplasty'' 28mm Physio- II ring on 2021/02. After the operation, the dyspnea aggravated then the patient came back to NCKUH. The following echocardiography showed HCM with LVOTO (Peak PG =190mmHg, peak transaortic velocity =6.9m/s) and SAM with posterior eccentric severe MR. The annulopasty made the condition of systolic anterior motion more severe. Finally, she received partial resection of myocardium and mitral valve replacement with good recovery.

Obstruction of the left ventricular outflow tract is a major hallmark of hypertrophic cardiomyopathy which is cause by systolic anterior motion of the mitral apparatus toward the hypertrophied septum. The drag force across the mitral valve pull the leaflets anteriorly to the basal septum and lead to both LVOTO and malcoaptation of the mitral leaflets, resulting in mitral regurgitation. Primary abnormalities of the mitral apparatus are also commonly observed including leaflet elongation and papillary muscle hypertrophy. Inappropriate operation strategy such as undersized annulopasty ring relative to the size of anterior leaflet might cause the aggravation of systolic anterior motion and obstruction of LVOT. Comprehensive initial patient evaluations are important for accurate treatment.

Interstimg imaging case
—A story with two character

A 72 year-old woman with history of hypertension visited cardiovascular click for edema and dyspnea on exertion. The fellow performed echocardiography but was confused….whether it is aortic stenosis, hypertrophic obstructive cardiomyopathy (HOCM) or both? Two different types of CW pressure tracing and hemodynamic studies unveiled interesting final impressions. The details of images and measurements will be represented in the talk.

講題：The thickened heart
單位：中國醫藥大學附設醫院 心臟科
作者：董承昌 醫師
摘要內容：

The thickened myocardium is not very unusual. It may be simply related to hypertension or aortic stenosis. However, there was still another disease that could cause thickened heart disease. The correct diagnosis may be ignored or challenging. The patient may receive inappropriate treatment if misdiagnosis was made. Though some cardiomyopathy diseases are rare, they still had specific treatments and the patient will accept suitable early treatment and influence the prognosis. I will present a case of thickened heart disease.

How to Identify the Critical Atrial Substrate by MRI Scanning

陳美綾, M.D.
Division of Cardiology, Taipei Veterans General Hospital,
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The cardiac magnetic resonance (CMR) imaging using a late gadolinium enhancement (LGE) sequence can comprehensively evaluate the cardiac function, anatomy, and identify both ventricular fibrosis and atrial fibrosis. The presence of LGE, either in atrium or ventricle, are independently associated with the likelihood of recurrent arrhythmia after pulmonary vein isolation. This talk will introduce the feasibility of atrial LGE acquisition, practical use of CMR imaging in the evaluation and prediction of catheter ablation, and the case sharing of current practice in Taipei Veterans General Hospital.

How to Identify the Critical Atrial Substrate by MRI Scanning

Does the Presence of HFpEF Alter the Threshold for Early AF Ablation?

The interdependence of atrial fibrillation/flutter and HFpEF on epidemiology,

pathophysiology, and long-term outcome had been reported in several studies. While concerning symptomatic HFpEF patients with atrial fibrillation, radiofrequency catheter ablation could relieve clinical symptoms. Compared with patients without HFpEF, the recurrence rate of atrial fibrillation was similar. However, these results are not consistent while using cryoballoon as the first line treatment tool. More atrial fibrillation recurrence was noted in patients with HFpEF. More clinical studies are still needed to prove the short term and long term efficacy of AF ablation in patients with HFpEF.

Autonomic Modulation for AF Control

Abstract

Atrial fibrillation (AF) is a rapidly growing clinical problem in routine practice, both for cardiologists as well as general practitioners. Current therapies aimed at the management of AF include anti-arrhythmic drug therapy and catheter ablation. But the outcome of those strategies are not satisfactory with a disappointing long-term efficacy. Autonomic nervous system activation can induce significant and heterogeneous changes of atrial electrophysiology and induce atrial tachyarrhythmias. The importance of the autonomic nervous system in atrial arrhythmogenesis is also supported by circadian variation in the incidence of symptomatic AF in humans. The mechanisms by which autonomic activation is arrhythmogenic or antiarrhythmic are complex and different for specific arrhythmias. Methods that reduce autonomic innervation or outflow have been shown to reduce the incidence of spontaneous or induced atrial arrhythmias, suggesting that autonomic neuromodulation may be helpful in controlling AF. Therapeutic approaches such as catheter ablation of ganglionated plexi (GP), renal denervation and transcutaneous vagus nerve stimulation are viable treatment options that need further confirmation in larger randomized controlled trials.

Should CSP be First Line in HF CRT Indicated Patients? (Cons)

China Medical University Hospital

Abstract:

Cardiac resynchronization remains an important management for heart failure patients with left bundle branch block and have received optimal medication treatment for 6 months. Advance of the physiological pacing, such as His bundle pacing and intraventricular septal, left bundle pacing, has opened a new avenue of cardiac resynchronization. Physiological pacing restores, at least in part, intrinsic conduction system and shows benefits in electrical resynchronization and mechanical improvement. Compelling evidence supports physiological pacing is comparable or even superior to conventional cardiac resynchronization therapy. However, CSP showed limited benefits in CRT indicated patients with intraventricular conduction delay. A LV lead is still essential to optimize LV resynchronization in these cases and thus improve heart failure. Biventricular CRT with possibly conjunct CSP remains the first line in HF CRT indicated patients.

Abstract:

We will explain why His bundle pacing should not be performed from the following points of view.

1. Anatomy of His bundle and fibrous sheath
2. Ideal His bundle pacing location and technical difficulty
3. Current injury of the His bundle
4. Battery depletion, Backup pacing suggestion, Over-sensing/inhibition, Long term lead stability, and Lead extraction consideration of His bundle pacing
5. Left bundle branch area pacing VS His bundle pacing

Should We Abandon His Bundle Pacing ? Cons.

Abstract:

Conventional right ventricular pacing could alter the global physiology and cardiac function. His bundle pacing (HBP) replicates the ventricular activation that spreads through the native conduction system and successfully corrects His-Purkinje system conduction defects to achieve physiological ventricular activation and avoid ventricular dyssynchrony. Many studies have demonstrated the feasibility, safety and positive clinical outcomes of HBP. Growing evidence is strengthening both good technical performance and clinical outcomes, even during long-term follow-up.

With increased implementation, recent concerns have emerged whereby (1) HBP implantation is technically more challenging with a long learning curve; and (2) thresholds for His capture may unpredictably rise after device placement. In response to these issues, improving implanting tools, devices, and algorithms could solve some issues. Guidelines are also opening the way to consider HBP as a first-line approach in patients who need a high frequency of pacing. Despite the left bundle branch pacing could provide the promising result, HBP is still the most physiological way to pace the heart and restore physiologic conduction

In conclusion, HBP is safe and feasible in daily clinical practice to provide physiological pacing and the most disadvantages of HBP can be overcome by the implant techniques. Based on HBP has multiple benefits, we should not abandon HBP.

CSP:

Conduction system pacing (CSP) is a novel and reasonable pacing modality that might offer a more physiological pacing response in patients who need pacing. CSP is achieved by placing the lead along with the different sites of the conduction system

such as His bundle and left bundle branch area. CSP might provide the pacing with more synchronized biventricular activation; thus it might be able to be an alternative to cardiac resynchronization therapy (CRT). In this review, we provide evidence of the benefits of CSP overcoming CRT.

How to Diagnosis HFpEF

With the increase in the population's life expectancy and the higher frequency of risk factors such as obesity, hypertension and diabetes, an increase in the prevalence of heart failure with preserved ejection fraction (HFpEF) is expected. However, to date, the diagnosis and treatment of patients with HFpEF remain challenging. The syndromic diagnosis of HFpEF includes several etiologies and diseases with specific treatments but has points in common regarding the clinical presentation, laboratory evaluation related to biomarkers, such as BNP and NT-ProBNP, and echocardiographic evaluation of cardiac remodeling and left ventricular diastolic filling pressures. Extensive randomized clinical trials involving the treatment of this condition have failed to demonstrate benefits to the patient, making it necessary to reflect on the diagnosis, mechanisms of morbidity, mortality and reversibility in this syndrome. In this session we will discuss the current concepts, controversies and challenges, especially regarding diagnosis about HFpEF.

How to Treat HFpEF?

洪崇烈
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All foundational therapies for HFrEF, except ACEI and beta-blocker, have some evidence to support their efficacy in reducing heart failure endpoint in patients with HFpEF. The efficacy of MRA remained persistent, though with a less extend, in the lower range of LVEF of HFpEF (up to 55%). ARNI decreased heart failure endpoints in the range of HFpEF until LVEF around 57%. Data for SGLT2 inhibitors are the most robust with their efficacy in the spectrum of LVEF from 25% to 65%, even to LVEF 70%.A recent individual patient-level meta-analysis also demonstrated efficacy of cardesartan, MRA, and ARNI extend to the lowe part of the LVEF range of HFpEF.
In the recent DELIVER trial, starting dapagliflozin during or shortly after heart failure hospitalization in patients with HFmrEF or HFpEF appears safe and effective. Time to first statistical significance for the primary end point was 13 days after randomization (HR 0.45; 95% CI, 0.20-0.99; P = .046). These data suggested that foundational therapies should be initiated very early, best before discharged for patients with HFpEF, similar to what we have observed for patients with HFrEF.
The benefit of combination therapy for HFpEF was recently reported, based on individual patient-level analysis from MRA, ARNI, and SGLT2 inhibitor. Switching to ARNI from ACEI/ARB, adding an MRA, and an SGLT2 inhibitor reduced cardiovascular death and heart failure hospitalization in the subgroups with LVEF 45% to 54% (HR 0.49, 95% CI 0.32-0.74) and LVEF 55% to 64% (HR 0.54, 95% CI 0.37-0.80) but not in those with LVEF ≥65% (HR 1.17, 95% CI 0.65-2.10). The figure shows the treatment algorithm for HFpEF.

Treatment algorithm for HFpEF

SBP≥100 mmHg	Titration steps	Cumulative time (W)	SBP<100 mmHg
SGLT2i +			SGLT2i +
ARNI			MRA
⇓	1	2	⇓
MRA			ARNI

Coronary Artery Disease with Mitral Regurgitation,
Discuss CABG with Moderate Ischemic Mitral Regurgitation,

Repair or Not Repair, Replacement vs Repair

Abstract

Ischemic mitral regurgitation is a common complication due to left ventricular regional or global pathological remodeling with coronary artery disease. Ischemic mitral regurgitation is defined as mitral regurgitation caused by chronic changes of LV structure and function causing by ischemic heart disease. Ischemic mitral regurgitation is not a valve structure disease but represents the valvular consequences of increased tethering forces and reduced closing forces, and it means secondary mitral regurgitation. It is important to distinguish between primary mitral regurgitation and secondary mitral regurgitation. Primary mitral regurgitation is organic valvular disease, which one or more valvular components dysfunction. Secondary mitral regurgitation is also called as functional mitral regurgitation, due to LV remodeling by coronary artery disease and cardiomyopathy. The mitral leaflet adaptation includes enlargement and increased stiffness.

About mitral valve regurgitation of Carpentier's classification, mitral leaflet dysfunction is based on the relation of the annular plane and the motion of the margin of the leaflet. Ischemic mitral regurgitation characterized by Carpentier's classification is type IIIb. It means restricted motions of the margin of the leaflet in heart systole.

Surgical treatment of ischemic mitral regurgitation has mainly comprised coronary artery bypass grafting, with or without mitral valve correction, which including a variety of techniques, suture, band, ring annuloplasty, or mitral valve replacement. Surgical revascularization alone with coronary artery bypass grafting is sufficient in patients with mild ischemic mitral regurgitation. The decision to repair the mitral valve in patient of moderate IMR is still controversial. Coronary artery revascularization may lead to reverse remodeling of the left ventricle which in turn may result in a reduction in regurgitation. For ischemic mitral regurgitation, coronary artery bypass grafting is carried out concomitant with mitral valve annuloplasty ring, which achieves mitral valve competency by restoring the size of the mitral annulus and increasing mitral leaflet coaptation. Performing under sizing the mitral annuloplasty ring, it results in the annulus and leaflets together and into alignment, achieving the central line of coaptation. A complete mitral annular ring should be used to treat ischemic mitral regurgitation, instead of partial annuloplasty ring, which may lead mitral regurgitation recurrence due to the anterior annulus dilatation.

From 2012, 29 patients received coronary artery bypass grafting and a complete mitral annuloplasty ring for coronary artery disease with moderate ischemic mitral regurgitation. Excellent results were observation during following period.

Although it is a great challenge to manage ischemic mitral regurgitation. The role of concomitant repair in case of moderate ischemic mitral regurgitation is still not clear completely. We are concerned that it is some relative benefit for coronary artery bypass grafting combined with a complete mitral annuloplasty ring in patients with ischemic mitral regurgitation.

Updates on Images Evaluating Hibernating Myocardium

亞東紀念醫院 心臟血管醫學中心 吳彥雯

Chronic ischemic dysfunction of the left ventricle is commonly presumed to represent "hibernating" myocardium. The implication of this assumption is that with successful reperfusion, systolic function will improve. Several diagnostic techniques including dobutamine stress echocardiography (DSE), nuclear imaging have been used to detect "viable" myocardium in the setting of chronic left ventricular dysfunction. Cardiac computed tomography or magnetic resonance imaging (MRI) could detect scar (=non-viable) myocardium. The pooled analysis describes the relative merits of DSE, thallium-201 and technetium-99m scintigraphy, positron emission tomography, and MRI, for the diagnosis of hibernating myocardium and prediction of patient outcomes. Although therapeutic options have improved overall survival over the years, mortality rates remain high, and in daily practice cardiologists not infrequently face the therapeutic dilemma whether a revascularization procedure will lead to symptomatic and prognostic benefit for the patient. Simple, straightforward guidelines are lacking because of the complexity of the disease. Moreover, the issue of viability imaging grounded on observational and retrospective studies has recently been challenged by the publication of prospective, some randomized trials showing no benefit of revascularization nor of preprocedural viability assessment in those patients. All current models have presumed that chronically dysfunctioning myocardium is "hibernating." Obviously, in the chronic setting, dysfunction may have many causes and include components of transmural and nontransmural infarction as well as hibernating myocardium. These contradictory findings have obliged us to inquire whether viability imaging is still relevant and what is needed to make it more appropriate. This talk focuses the non-invasive imaging techniques and the evidence on their diagnostic and prognostic values on ischemic cardiomyopathy.

Interventions for ischemic cardiomyopathy with LVEF <25%

Role of PCI

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When applied to clinical practice, the very definition of myocardial viability has been linked to the potential for dysfunctional myocardium to improve its contractile force after revascularization. In fact, it has been generally accepted that dysfunctional myocardium that did not improve after successful revascularization was, in retrospect, not viable. The reversal of myocardial hibernation by revascularization is felt to be the key mechanism underpinning potential benefit of revascularization for patients with CAD and HF. A further proposed mechanism of benefit of revascularization in patients with HF is prevention of future myocardial infarction in patients with old infarcts and

reduced ventricular function; this may be the mechanism underlying the benefit of coronary artery bypass grafting (CABG) in patients with HF, whereby distal insertion of a bypass graft may provide protection against future proximal vessel stenoses or occlusions.

In the STICH Extension Study, revascularization with CABG in patients with HF with reduced ejection fraction (HFrEF) improved survival compared with medical therapy at a median follow-up duration of 9.8 years. These benefits did not emerge until longer-term follow-up, and more deaths occurred in the CABG arm than in the medical therapy arm until the 2-year time point. Despite this mortality benefit, CABG is performed in only a small minority of patients with HF in daily practice.

In the ESC guidelines, CABG is recommended as the first revascularization strategy in patients with ischemic cardiomyopathy and multivessel disease as long as the risk of surgery is acceptable (class I, level of evidence B). PCI can be considered in one- or two-vessel disease when complete revascularization can be achieved (or in three-vessel disease based on advice from the heart team), although that recommendation is relatively weak (class IIa, level of evidence C). In the US, surgery is also recommended for these patients, but there is no direction given on the use of PCI because of the lack of data.

Patients eligible for randomization in REVIVED had a left ventricular ejection fraction ≤ 35% and extensive coronary artery disease as assessed by the British Cardiovascular Intervention Society (BCIS) jeopardy score. With PCI, the treatment protocol required operators to attempt revascularization in all diseased proximal coronary vessels subtending four or more areas of viable myocardium. Medical therapy was managed by HF specialists at the recruiting centers and included not only GDMT titrated to optimal doses but also use of medical devices, such as ICDs with and without cardiac resynchronization therapy. After a median follow-up of 3.4 years, the primary endpoint—a composite of all-cause mortality and HF hospitalizations—occurred in 37.2% of patients in the PCI arm and 38.0% of patients in the medical-therapy group, an insignificant difference. There was no difference in the risk of individual components of the primary outcome, nor any difference in the risk of acute MI. Spontaneous MIs, however, were more frequent with medical therapy and the risk of unplanned revascularization was significantly higher (2.9% with PCI vs 10.5% with medical therapy; HR 0.27; 95% CI 0.13-0.53).

Nowadays, we need a RCT to show which kind of revascularization (PCI vs CABG) provides better cardiovascular protection and life quality.

How Do I Prescribe An Exercise Program for My Post-Myocardial Infarction Patients ?

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Cardiac rehabilitation (CR) is the “gold standard of care” for patients after a cardiac event or procedure, and initially developed for cases with acute myocardial infarction (MI). CR consisted of multiple supervised, comprehensive sessions by a multidisciplinary team that includes cardiologists, physiatrists (rehabilitation specialist), nurses, physical therapists, occupational therapists, dietitians, psychologists, and pharmacist.

The staging of CR is composed of hospital-based CR, acute phase (Phase 1); outpatient CR, training phase (Phase 2), and outpatient CR, maintenance phase (Phase 3). Phase 1 CR starts when patient`s medical condition is stable. The program begins with early mobilization and progress to ambulation, even climbing stair, under hemodynamic monitor. The goal of Phase 1 CR is safe activity of daily living at home. The most important component of comprehensive evaluation before phase 2, out-patient CR, is the cardiopulmonary exercise test (CPET). The data derived from CPET and other parameters and factors are used to stratify risk and determine the initial training intensity of aerobic exercise. The goal of this phase is reducing mobility and mortality, as well as increasing quality of life. As aerobic training progress, resisted exercise is added in the program latter. After a total of 36 sessions in 12-18 weeks, CR advances to Phase 3 to maintain the functional gain by Phase 2 training, and the training intensity is the same as that in Phase 2 CR.

CR is an evidence-based, effective treatment for post-MI patients. However, the rate of participation in CR is still low and CR is needed further promotion.

Tile: My Eyelids and Heart are Heavy - Insomnia and Heart Health
Speaker: Dr Lin Yusheng
Abstract: Insomnia is a common disease and more prevalent in elderly. Acute Insomnia is often combined with stress but chronic insomnia is more complex. Insomnia will activate sympathetic system, disturb circadian clock and make people unfresh. Insomnia is associated with multiple cardiovascular disease such as arrthymia, coronary artery disease, aortic dissection but the link is not very clear. Insomnia therapy might improve sleep quality but have little evidence in improving heart health.

Pearls of 2022 Taiwan PA Consensus

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Abstract

Primary aldosteronism (PA) is the most common form of secondary endocrine hypertension. The overall prevalence of PA among hypertension patients increase along with the severity of hypertension, ranging from 5% to 15%, and up to 20% in resistant hypertension. The deleterious effect of renin-independent aldosterone overproduction causes adverse cardiovascular, cerebrovascular, metabolic and renal outcome. Due to the complexity in PA detection, diagnosis and treatment, it is valuable to develop evidence-based consensus and guideline for managing PA patients. Several PA guidelines have been established to fit the regional epidemiology features according to local healthcare resources and facilities. In 2009, the Japan Endocrine Society (JES) developed guidelines and suggest PA screening in all hypertension patients due to the high prevalence of cardiovascular disease and the low case detection rate of PA in Japan. The Endocrine Society also updated clinical guideline for the management of PA in 2016.

In contrast to Caucasian PA cohort, the Taiwanese PA cohort has a unique feature of higher prevalence (around 60%) of somatic mutation, especially *KCNJ5*, without gender differences. Hence, the long-term outcomes after PA targeted treatment are totally different from the western PA cohorts as well. Therefore, a local consensus and guideline for PA is needed to improve the healthcare in Taiwan.

Taiwan Society of Aldosteronism (TSA) was set up by Taiwan Primary Aldosteronism Investigation (TAIPAI) Study Group, which was assembled in 2006. TSA, collaborated with Taiwan Society of Cardiology, Taiwan Hypertension Society, Endocrine Society of the Republic of China (Taiwan), Taiwan Society of Nephrology and Taiwan Urological Association, had gathered a Task Force from among Taiwan PA professionals to held consensus conference in November, 2021. The clinical guideline is based on the updated international clinical evidence and incorporate local disease characteristics in Taiwan. In this speech, the screening, diagnosis and treatment of PA in 2022 Taiwan PA Consensus will be discussed.

The Intriguing Relationship Between Depression, Anxiety and Heart Disease

As clinicians providing health care, we are experienced at treating physical disease but often not as good at treating the person as a whole. Increasing evidence shows clear associations between psychological health and cardiovascular disease, as well as the causal relationships between mind, body and heart that contribute to cardiovascular disease.

Among cardiovascular disease, coronary artery spasm (CAS), of which the mechanisms remain unclear, has been suggested to be an inflammatory disease characterized by the presence of elevated C-reactive protein (CRP). The prevalence of CAS appears to be greater in the Asian population than that in Western populations and the diagnosis of variant angina among patients with angina referred to Japanese medical institutions is highly prevalent, 40%. In East Asia as well as Western countries, CAS is more prevalent among men than women. Most patients with CAS are between 40 and 70 years of age, and the prevalence tends to decrease after the age of 70 years. Previous Asian and German studies of patients without obstructive coronary artery disease have shown that the prevalence of CAS is more than 50% in patients with acute coronary syndrome.

Anxiety and depression are highly correlated, and both have been demonstrated to be risk factors for coronary artery disease (CAD) and acute myocardial infarction. A study from a US population showed that anxiety was associated with 60% excess risk of CAD among women and men, an effect that was independent of traditional CAD risk factors. Notably, about one third of chest pain patients with angiographically normal coronary arteries reportedly have panic disorder, a form of anxiety.

Among psychological factors affecting CAD development, anxiety and depression are distinct from other psychological and behavioral factors like personality or coping style in that depression and anxiety have been demonstrated to be associated with elevated levels of proinflammatory cytokines. Therefore, inflammation may mediate the link between anxiety, depression and CAS. Anxiety activates sympathetic nervous system. To restore balance, the parasympathetic nervous system responds by turning off the stress reaction, allowing the individual to return to peacefulness again. However, the parasympathetic nervous system can malfunction, leaving the individual in a state of constant red alert. This situation puts strain on the mind and body and if it continues, can lead to depression.

Mental stress can cause angina in patients with CAD, among which paradoxical constriction occurs particularly at points of stenosis. Furthermore, anxiety is suggested to trigger CAS in susceptible subjects by hyperventilation. Several studies reported that patients who had chest pain and normal coronary arteries exhibited more psychiatric illnesses than did patients with definitive coronary artery disease. These patients at the crossroads of cardiology and neuropsychiatry will provide a clinical model for investigation of the relationship between neurophysiology and CAS. Furthermore, relevant studies will set a good example of how a close collaboration between cardiologists and psychiatrists can improve patient care in patients with CAS.

Prevention and treatment of hypertension (HTN) are a challenging public health problem. Recent evidence suggests that artificial intelligence (AI) has potential to be a promising tool for reducing the global burden of HTN, and furthering precision medicine related to cardiovascular (CV) diseases including HTN. Since AI can stimulate human thought processes and learning with complex algorithms and advanced computational power, AI can be applied to multimodal and big data, including genetics, epigenetics, proteomics, metabolomics, CV imaging, socioeconomic, behavioral, and environmental factors. AI demonstrates the ability to identify risk factors and phenotypes of HTN, predict the risk of incident HTN, diagnose HTN, estimate blood pressure (BP), develop novel cuffless methods for BP measurement, and comprehensively identify factors associated with treatment adherence and success. Moreover, AI has also been used to analyze data from major randomized controlled trials exploring different BP targets to uncover previously undescribed factors associated with CV outcomes. Therefore, AI-integrated HTN care has the potential to transform clinical practice by incorporating personalized prevention and treatment approaches, such as determining optimal and patient-specific BP goals, identifying the most effective antihypertensive medication regimen for an individual, and developing interventions targeting modifiable risk factors. Although the role of AI in HTN has been increasingly recognized over the past decade, it remains in its infancy, and future studies with big data analysis and *N*-of-1 study design are needed to further demonstrate the applicability of AI in HTN prevention and treatment.

Comprehensive monitoring and management of critical patients

Critical patients suffered from severe organ dysfunctions. Multiple organ dysfunction casts great impact in mortalities. These patients always need intensive and extensive care, which demands comprehensive monitoring and multi-disciplinary care. In this short presentation, we would like to share our daily scheme in offering intensive care for these critical patients.

The whole scheme in caring a critical patient comprises five major dimensions: ventilation, circulation, infection, nutrition and sedation. Further details including monitoring and management could be explored based on these 5 dimensions.

Life Support Device in Critical Patients

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