TSOC 肺高壓北台灣研討會
-- What's new in Post-WSPH?

日期 : 2024 / 07 / 27 (星期六) 14:00 - 17 :30
地點 : 台北張榮發會議中心 8 樓 803 會議室

Agenda

Time	Topic	Speaker	Moderator
14:00-14:05	Opening	馬偕 心內 吳懿哲 醫師	
14:05-14:25	Pathobiology and Pathophysiology of disease (Including Genetics & genomics)	馬偕 心內 吳懿哲 醫師	中國 心內 王國陽 醫師
14:25-14:45	Definition, classification and diagnosis of pulmonary hypertension (Including imaging techniques)	三總 心內 吳俊賢 醫師	
14:45-15:05	PAH treatment algorithm, risk stratification and treatment goals	馬偕 心內 吳書豪醫師	彰基 心內 夏建勳 醫師
15:05-15:25	Chronic thromboembolic pulmonary disease	中榮 心內 賴志泓 醫師	
15:25-15:35	Break	All	
15:35-15:55	Clinical trial designs and emerging therapies (including Paediatric PH)	亞東 心內 邱昱偉 醫師	成大 心內 許志新醫師
15:55-16:15	PH and left heart disease	慈濟 心內 劉維新 醫師	
16:15-16:35	PH and chronic lung disease (including lung transplantation)	台大 胸腔 郭炳宏 醫師	馬偕 心內 吳懿哲 醫師
16:35-16:55	PAH Management in special conditions (ICU, pregnancy, peri-op, palliative /end of life care)	成大 心內 林佳凌 醫師	
16:55-17:25	Panel Discussion	馬偕 心內 吳懿哲 醫師	
17:25-17:30	Closing	馬偕 心內 吳懿哲 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

吳俊賢醫師個人學經歷

1. 基本資料

吳俊賢醫師
服務單位：三軍總醫院內科部心臟內科
現 職　：三軍總醫院心臟加護中心主任
　　國防醫學院助理教授
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2.學經歷

學歷
國防醫學院醫學系醫學士
陽明交通大學微生物及免疫學研究所博士

經歷

三軍總醫院內科部住院醫師	(2002-2005)
三軍總醫院心臟內科住院醫師	(2005-2006)
三軍總醫院心臟內科住院總醫師	(2006-2007)
國軍高雄總醫院屏東分院心臟內科主治醫師	(2007-2008)
三軍總醫院澎湖分院心臟內科主治醫師	(2008-2009)
三軍總醫院基隆民診處心臟內科主治醫師	(2009-2010)
三軍總醫院心臟內科主治醫師	(2010-2017)
三軍總醫院心臟超音波室主任	(2017-2020)
三軍總醫院心臟加護中心主任	(2020-迄今)

3.專科執照與學會

中華民國心臟專科醫師
中華民國心臟專科指導醫師
中華民國心臟學會 心臟血管介入專科醫師
中華民國心臟學會肺高壓暨循環委員會委員
臺灣介入性心臟血管醫學會 介入性心臟血管專科醫師
中華民國重症醫學會 重症專科醫師
中華民國心臟超音波學會 心臟超音波專業醫師

Shu-Hao Wu, M.D.

吳書豪 醫師

Department of Cardiology,
MacKay Memorial Hospital

Education

Medical (M.D.) Chung Shan Medical University

Post-Graduate Education

2010~2013	Residency, Internal Medicine MacKay Memorial Hospital
2013~2015	Fellowship, Cardiology MacKay Memorial Hospital

Employment

2015~	Attending Physician Cardiology, MacKay Memorial Hospital

Board Certification

2013	Board of Internal Medicine
2015	Board of Cardiology
2016	Board of Interventional Cardiology
2016	Board of Critical Medicine

邱昱偉. Chiu, Yu-Wei, M.D. Ph.D.

學歷:

國立台灣大學醫學院醫學系醫學士

國立台灣大學醫學院臨床醫學研究所博士

現任:

亞東紀念醫院心臟內科主治醫師

元智大學資訊工程系/亞東紀念醫院合聘助理教授

亞東紀念醫院肺高壓中心主任

劉維新 醫師

現職：
花蓮慈濟醫院心臟內科心功能檢查室主任
花蓮慈濟醫院心臟內科主治醫師

學歷：
台北醫學院醫學士

經歷：
玉里慈濟醫院一般內科、心臟內科主治醫師
花蓮慈濟醫院內科加護病房主治醫師

專長：
一般內科
心臟內科
狹心症
心導管及治療
週邊血管疾病
高血壓
先天性及瓣膜性心臟病

專科證書：
介入性心臟專科醫師
心臟科專科醫師
內科專科醫師

Lin, Jia-Ling (林佳淩)

Education

2005-2012 M.D., National Cheng Kung University, Tainan, Taiwan

Employment Record

2012-2013 Post-graduate year training, National Cheng Kung University Hospital
2013-2014, 2015-2017 Resident, Department of Internal Medicine,
National Cheng Kung University Hospital, Tainan, Taiwan
2017-2019 Clinical Fellow, Division of Cardiovascular Department,
National Cheng Kung University Hospital, Tainan, Taiwan
2019-2021 Attending Physician, Division of Cardiovascular Department,
National Cheng Kung University Hospital, Tainan, Taiwan
2021-2023 Attending Physician, Division of Cardiovascular Department,
National Cheng Kung University Hospital Dou-Liou Branch, Yunlin, Taiwan
2023- Attending Physician, Division of Cardiovascular Department,
National Cheng Kung University Hospital, Tainan, Taiwan

Board Certification

Adult Cardiologist
Interventional Cardiologist
Intensivist

Professional Affiliation

Taiwan Society of Internal Medicine
Taiwan Society of Cardiology (TSOC)
2022-2024 Member of TSOC Young Physician Working Group
Taiwan Society of Cardiovascular Intervention
Taiwan Heart Rhythm Society
Taiwan Society of Critical Care Medicine
Taiwan Society of Heart Failure

Definition, classification and diagnosis of pulmonary hypertension (Including imaging techniques)

The prostacyclin (prostaglandin I2 (PGI2)) pathway is an important therapeutic target in pulmonary arterial hypertension (PAH). Reduced levels of PGI2 are associated with pathogenic changes within the lung vasculature and therapies that aim to restore PGI2 signalling have been shown to play a key role in PAH management . Evidence to support the use of therapies targeting the PGI2 pathway was first generated in the 1990s when intravenous epoprostenol, was demonstrated to provide symptomatic and haemodynamic benefits and to improve survival. As a result, epoprostenol was the first drug to be approved for PAH. The European Society of Cardiology/European Respiratory Society (ESC/ERS) guidelines cite different levels of recommendation and evidence for each therapy, with epoprostenol having the highest level (IA) in patients with WHO FC III or IV disease. Intravenous prostanoids require continuous infusion via a central venous catheter due to their short half-lives . Serious side-effects may occur on interruption or withdrawal of i.v. prostanoids , which can result from pump malfunctions or if the line is erroneously compromised. A compromised line can lead to cardiovascular collapse

Subcutaneous treprostinil was first approved for use as a PAH treatment in 2002 and in the current ESC/ERS guidelines it is recommended for use in patients in WHO FC III or IV. Subcutaneous treprostinil is administered as a continual infusion via a s.c. catheter . It has a longer half-life than epoprostenol and as a result, the risk of haemodynamic compromise within a short period of time due to rebound pulmonary constriction appears to be lower. It is available in pre-mixed vials Although the s.c. mode of administration offers advantages, the delivery of a continuous parenteral infusion is not without practical challenges. Infusion site pain and reaction were the most common adverse reactions reported in clinical trials, occurring in 85% of patients. Failure to address infusion site pain may lead to discontinuation of treatment Although site pain is not dose-dependent and is manageable in the majority of patients, local, topical or systemic analgesics may be required Patients with chronic pain may need referral to a pain specialist. Practical advice and support delivered in a timely manner helps patients to overcome their concerns about treatment. With an effective management plan and support from an experienced multidisciplinary team, dealing with the complexities of therapies that target the PGI2 pathway becomes more manageable.

PAH treatment algorithm, risk stratification and treatment goals

Pulmonary hypertension (PH) is a complex and progressive condition characterized by elevated blood pressure in the pulmonary arteries, which can lead to right heart failure if untreated. Effective management of PH requires a comprehensive risk assessment, a structured treatment algorithm, and clear treatment goals.

Risk Assessment: The risk assessment for PH involves evaluating the patient's clinical status, hemodynamic parameters, exercise capacity, and biomarkers. Key indicators include the World Health Organization (WHO) functional class, six-minute walk distance (6MWD), levels of brain natriuretic peptide (BNP) or N-terminal pro b-type natriuretic peptide (NT-proBNP), and echocardiographic findings. This multifaceted approach helps stratify patients into low, intermediate, or high-risk categories, guiding treatment decisions and prognostication.

Treatment Algorithm: The treatment algorithm for PH is tiered based on the patient's risk category. For patients with pulmonary arterial hypertension, advanced therapies may include endothelin receptor antagonists (ERAs), phosphodiesterase-5 inhibitors (PDE-5i), prostacyclin analogs, or sotatercept. Combination therapy is strongly recommended, and parenteral prostacyclin should be considered for patients with high-risk status. Regular follow-up and reassessment are crucial for optimizing therapy.

Treatment Goals: The primary goals of PH treatment are to relieve symptoms, restore right ventricle function, improve hemodynamic parameters, enhance quality of life, and prolong survival.

Effective management of pulmonary hypertension thus hinges on a thorough risk assessment, adherence to a structured treatment algorithm, and the pursuit of clearly defined treatment goals.

Clinical trial designs and emerging therapies (including Paediatric PH)

Pulmonary hypertension is commonly found in daily practice. But some specific etiology like pulmonary artery hypertension is a rare but progressively lethal disease. Therefore the new 2022 ESC/ERS pulmonary hypertension guideline adjust the diagnosis criteria of pulmonary hypertension, emphasize early diagnosis and early efficient combination treatment for these patients. For this goal many image modalities were suggested for the diagnosis and the disease severity evaluation for them. Some high risk specific groups, like those with connective tissue disorder or gene disease, are suggested to have a screening process for them.

PAH management in special conditions

(ICU, pregnancy, peri-OP, palliative /end of life care)

In this short talk, we review management of some special conditions in patients with pulmonary hypertension. Besides general principles, we focus on update from the 7th World Symposium of Pulmonary Hypertension.

We will go through several topics. The first is how to manage these patients with right heart failure in the setting of intensive care unit. The key is to keep adequate output and perfusion, with medication and mechanical circulatory support if needed. Second, the experts do not recommend pregnancy although they do not prohibit it. It is emphasized to manage delivery in an experienced center. Cesarean section is mostly favored. For peri-operative management, we need careful evaluation, watching certain risk factors and acknowledging that deterioration may happen even in relative stable patients. Anesthesia is a critical part. In palliative/end-of-life care, the experts suggest regular assessment. It is not necessarily “end-of-life” care, it is more for how to live well.

For these special conditions, there are few trials. We need more specialists to work on how to better manage these situations.