MASTER CLASS
IN
PULMONARY HYPERTENSION

Tuesday, April 4, 2017
2:00 PM – 7:00 PM
Manchester Grand Hyatt Hotel, San Diego, California, USA

SEAPORT F - G

ISHLT ACADEMY
MASTER CLASS IN PULMONARY HYPERTENSION

Tuesday, April 4, 2017

Scientific Program Committee

Chair: Myung Park, MD, Houston Methodist, Houston, TX, USA
Co-Chair: Ioana Preston, MD, Tufts Medical Center, Boston, MA, USA

Members: Robert Frantz, MD, Mayo Clinic, Rochester, MN, USA
Marco Guazzi, MD, PhD, IRCCS Pol San Donato, Milan, Italy
Manreet Kanwar, MD, Allegheny General Hospital, Pittsburgh, PA, USA
Steven Nathan, MD, Inova Fairfax Hospital, Falls Church, VA, USA

Course Summary

The Pulmonary Hypertension (PH) Master Class is intended for members with higher levels of expertise (completed the core curriculum course on PH and/or primary practice in PH ≥ 5 years) who have managed patients with one or more of the topics intended for discussion. The course setting will generate a highly interactive environment composed of a small group of individuals and designed to enhance individual expertise and network development. Utilizing the concept of "convergent discussion" and the technique of "audience response system", faculty moderators will use complex situations and controversial statements during practical case presentations in order to lead the group through active audience participation, towards specific answers based on practice gaps and learning objectives. The MCS Master Class is arranged in advanced breakout sessions for every participant to take full advantage of an integrated curriculum and the exceptional networking opportunity. The four topics covered include: advanced pulmonary arterial hypertension (PAH Group 1); PH due to left heart failure (PH Group 2); PH due to advanced lung disease (PH Group 3); and chronic thromboembolic PH (CTEPH, PH Group 4). The topics chosen will cover the major aspects of various forms of PH and highlight the significant differences in the diagnosis and management of these entities. We anticipate that this method of collaborative and interactive learning will lead to application and integration of new knowledge into participant practice.

Practice Gaps

1: Advanced medical therapies and treatment algorithms for PAH have evolved tremendously in the recent years. The management of patients with advanced PAH and acute (or acute on chronic) right heart failure poses real challenges: their mortality is extremely high and salvage therapies used as bridge to a successful transplantation are complex. The implementation of advanced supportive measures in a failing right heart such as parenteral prostanoid replacement therapies, inotropic support and ECMO are often delayed or never utilized in advanced PAH patients. Recently published literature identified significant gaps in the recognition of signs that require adjustment of therapies in PAH management, including usage of parenteral therapies. Therefore, there is a real practice gap that limits their appropriate use in selected patients.

2: The presence of right ventricular dysfunction in the setting of systolic heart failure (PH due to heart failure with reduced ejection fraction, PH-HFrEF) represents a complex challenge for practitioners. The use of advanced support systems such as LVADs in the setting of right heart failure needs very careful consideration, including detailed evaluation of the RV function with noninvasive and invasive tests; heart failure specialists may lack the intricate details of these complicated patients and will benefit from the expertise of our speakers in addressing these challenging and commonly encountered issues. Lastly, PH from left ventricular diastolic dysfunction (PH-HFpEF) is often refractory to currently available therapies and its management is very challenging. Moreover, therapies that are effective for PAH Group 1 have not been carefully evaluated in PH due to heft heart disease

(PH Group 2). Therefore, a deep understanding of the pathophysiology of PH Group 2 and how it differs (or not) from PAH Group 1 is necessary before making a decision of whether or not to treat.

3: PH due to advanced lung disease (PH Group 3) occurs in the vast majority of patients being evaluated for lung transplant and is associated with increased mortality. Identification of PH, correct determination of PH type and decision whether or not to treat are complex aspects of care of patients with advanced lung disease. Because many patients in this category are being diagnosed when PH is already advanced, there is a clear gap in early recognition of PH Group 3. Assessment of patients with lung disorders such as pulmonary fibrosis, COPD and sarcoidosis for the presence and severity of PH is therefore an important step in improving their management.

4: Annual incidence rates of deep venous thrombosis (DVT) and pulmonary embolism (PE) are approximately 0.5 to 1.0 per 1000 inhabitants and CTEPH develops in approximately 2-15% of patients who had a PE. Therefore, the estimated prevalence of CTEPH is high. Several reports highlight the significant gaps that exist between guidelines and clinical practice in regards diagnostic approaches and management of CTEPH, such as the lack of utilization of the ventilation/perfusion scan for screening and delay or omission of referral to a specialized surgical center for evaluation of operability. Therapies for CTEPH have been recently diversified and include sophisticated surgical approaches such as pulmonary endarterectomy, balloon angioplasty and medical treatment. Therefore, reviewing and clarifying the diagnostic algorithm, as well as different therapeutic approaches will be of great benefit for physicians and allied health care practitioners.

Educational Goals

The overarching goal is to provide an advanced learning opportunity for specialists in the field of PH on the treatment of PAH Group 1, as well as PH in the setting of advanced left heart and lung disease and in chronic thromboembolic PH; all these entities have very different management approaches.

Target Audience

The target audience for this class includes pulmonologists/respirologists, cardiologists, thoracic surgeons, nurses, physician assistants, and allied health professionals with experience in PH. The course is intended for health care professionals whose primary practice is focused in PH for at least 5 years or who have completed the ISHLT Core Competency Course on PH.

Learning Objectives

Upon completion of the Master Class, participants will be able to:

1. Initiate advanced therapies for PAH
2. Apply advanced supportive measures in severe right heart failure
3. Manage complex patients with HFpEF and HFrEF complicated with PH
4. Understand pathophysiology, correctly diagnose and manage PH associated with advanced lung disease of different etiologies, such as emphysema, pulmonary fibrosis, or sarcoidosis.
5. Correctly define the type and severity of vascular compromise in CTEPH
6. Determine the best therapeutic option in CTEPH, such as surgical eligibility, medical treatment, or invasive nonsurgical approaches (balloon angioplasty).

Accreditation Statement

The International Society for Heart and Lung Transplantation (ISHLT) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation Statement

ISHLT designates this live activity for a maximum of 5.0 *AMA PRA Category 1 Credits.™* Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ANCC Credit

AMEDCO is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This course is co-provided by AMEDCO and ISHLT. Maximum of 5.0 contact hours.

Disclosure

Current guidelines state that participants in CME activities must be made aware of any affiliation or financial interest that may affect the program content or a speaker's presentation. Planners, Faculty and Chairs participating in this meeting are required to disclose to the program audience any real or apparent conflict(s) of interest related to the content of their presentations or service as Chair/Planner. These disclosures will be distributed at the meeting. Additionally, all speakers have been asked to verbally disclose at the start of their presentation if a product they are discussing is not labeled for the use under discussion or is still investigational.

SCIENTIFIC PROGRAM SCHEDULE

2:00 PM - 2:15 PM
WELCOME AND INTRODUCTIONS
Myung Park, MD, Houston Methodist, Houston, TX, USA

2:15 PM – 3:15 PM
SMALL GROUP INTERACTIVE DISCUSSION A: ADVANCED PAH: CHALLENGES IN MANAGEMENT
Moderator: Robert Frantz, MD

2:15 PM
CASE SCENARIO: Idiopathic PAH with Advanced Right Ventricular Failure
Paul Corris, MB FRCP, Freeman Hospital, Newcastle Upon Tyne, United Kingdom

Teaching/Discussion Points

a. Understanding of optimal management strategies for RV failure (diuretics, inotropes, pressors)
b. Discuss the role of atrial septostomy and ECMO
c. Timing of lung transplantation and factors impacting outcome

2:45 PM
CASE SCENARIO: PAH with Suboptimal Control on Double Combination Therapy: What Next?
Mardi Gomberg-Maitland, MD, Inova Heart and Vascular Institute, Falls Church, VA, USA

Teaching/Discussion Points

a. Utilization of optimal therapy lags behind guideline recommendations.
b. Recognition of disease progression requires sophisticated integration of clinical, imaging and hemodynamic parameters that is insufficiently employed.
c. Discussion of when to initiate parenteral therapy and various options available
d. Recognition of practice gaps suggesting that many PAH patients with advanced disease are not initiated on parenteral therapies and discussion of possible factors influencing this outcome

3:15 PM – 3:20 PM
Speakers switch rooms; delegates remain seated

3:20 PM – 4:20 PM
SMALL GROUP INTERACTIVE DISCUSSION B: Challenges in PH Due to Left Heart Disease: An Increasingly Recognized Complication
Moderator: Marco Guazzi, MD, PhD

3:20 PM
CASE SCENARIO: PH Due to Heart Failure with Reduced Ejection Fraction
Ray Benza, MD, Allegheny General Hospital, Pittsburgh, PA, USA

Teaching/Discussion Points

a. Hemodynamic definition and its limitations
b. Epidemiology and phenotypes. Understanding the role of the right ventricle in HFrEF
c. Pathophysiology of PH-HFrEF and the importance of mitral regurgitation
d. Discussion of transplant and advanced support in the presence of PH
e. Targeting the pulmonary microcirculation; a critical appraisal of current therapies for PH-HFrEF

3:50 PM
CASE SCENARIO: PH Due to Heart Failure with Preserved Ejection Fraction
C. Dario Vizza, MD, University of Rome, Rome, Italy

Teaching/Discussion Points

a. Hemodynamic and clinical definitions;
b. Epidemiology and phenotypic characteristics.
c. Challenging LV filling and diastolic properties: exercise vs fluid loading
d. Challenges in the management of patients with HFpEF and significant RV dysfunction. Discussion whether targeting the pulmonary vasculature is effective and safe.

4:20 PM – 4:45 PM
COFFEE BREAK

4:45 PM – 5:45 PM
SMALL GROUP INTERACTIVE DISCUSSION C: PH DUE TO ADVANCED LUNG DISEASE
Moderator: Steven Nathan, MD

4:45 PM
CASE SCENARIO: PH Due to Combined Chronic Obstructive Lung Disease and Pulmonary Fibrosis
Fernando Torres, MD, University of Texas Southwestern Medical Center, Dallas, TX, USA

Teaching/Discussion Points

a. Understand the implications of PH in diffuse parenchymal lung disease
b. Epidemiology: advances in screening techniques and diagnostic algorithms.
c. Interpretation of hemodynamic testing in the setting of advanced lung disease
d. Challenges in the treatment of advanced pulmonary vascular disease in patients with COPD and IPF.
e. Clinical trial conundrums

5:15 PM
CASE SCENARIO: PH Associated with Sarcoidosis
Oksana Shlobin, MD, Inova Fairfax Hospital, Falls Church, VA, USA

Teaching/Discussion Points

a. Is PH complicating sarcoidosis different to the PH of other forms of diffuse parenchymal lung disease?
b. What factors are unique to sarcoidosis? If PH in sarcoidosis similar to PAH Group 1?
c. Epidemiology: the role of PH screening in sarcoidosis
d. Implications with regards to transplantation
e. Treatment options, limitations of current therapies

5:45 PM – 5:50 AM
Speakers switch rooms; delegates remain seated

5:50 PM – 6:50 PM
SMALL GROUP INTERACTIVE DISCUSSION D: CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION (CTEPH)
Moderator: Manreet Kanwar, MD

5:50 PM
CASE SCENARIO: CTEPH with Mixed Type 3 and Type 4 Disease
Irene Lang, MD, Medical University of Vienna, Vienna, Austria

Teaching/Discussion Points

a. Distal disease: What is the right therapeutic approach?
b. Is there a role for combined surgical (PTE) and medical (BPA) approach in type 3/4 combined disease?
c. Surgical challenges in patients with distal disease
d. Optimizing patient selection for surgical candidacy in patients with high pulmonary vascular resistance and distal disease

6:20 PM
CASE SCENARIO: CTEPH with Discordant Diagnostic Results Between Imaging, Hemodynamics and Clot Burden
William Auger, MD, University of California San Diego Medical Center, San Diego, CA, USA

Teaching/Discussion Points

a. Patient selection for optimal therapeutic options for CTEPH
b. Predicting surgical outcomes from pre-op data
c. Diseases that mimic CTEPH
d. Identifying patients with likely post PTE persistent PH

6:50 PM – 7:00 PM
CLOSING REMARKS
Ioana Preston, MD, Tufts Medical Center, Boston, MA, USA

7:00 PM
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