CHAIRMAN FOREWORD

As the COVID-19 pandemic has been resolved, we are glad to welcome our colleagues to visit the paradise island, Bali, while joining our annual meeting, the 12th Bali Cardiology update that will be held offline. We organise workshops, symposiums, plenary talks, lectures with international and national keynote speakers, and interactive gatherings from throughout regions to discuss cutting-edge discoveries to advance the profession and medications specializing in cardiovascular disease managements, providing an absolutely superb framework for professionals in cardiovascular health, researchers, scientists, healthcare specialists, academicians, and individuals with interest in cardiology. This is your best opportunity to network with the most individuals from hospitals, academic institutions, heart associations, and research facilities because there are people from all over the world interested in finding a few solutions in the field of cardiology. The opportunity to network with colleagues and hear from renowned cardiologists and cardiovascular researchers at this cardiology summit is unmatched.

Agung Pradnyana Suwiry
### Workshop I: Physical Examination in Clinical Setting: Tips and Tricks for General Practitioners

**Venue:** Jakarta Room A  
**PIC:** dr. I Made Agus Endra Permata, SpJP

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<th>TIME</th>
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| 07:30 - 07:50 | Opening and MC:  
1. Pembukaan pertemuan video call dan sponorer (bila ada) dan diso  
2. Pembacaan CV Chairman  
3. Pemerasah atau ke Chairman |
| 08:00 - 08:10 | Opening by Chairman:  
Dr. I Made Agus Endra Permata, SpJP |
| 08:10 - 08:25 | Pre-test |
| 08:25 - 08:55 | Lecture 1  
**General approach to vascular murmur related to hemodynamics**  
**Speaker:** Dr. Tjok Aditya, SpJP, FINA |
| 08:55 - 09:10 | Discussion |
| 09:10 - 09:40 | Lecture 2  
**General approach to cardiac defect murmur**  
**Speaker:**  
Dr. I Kertik Raditha Sunar, SpJP, FINA |
| 09:40 - 09:55 | Discussion |
| 09:55 - 10:25 | Lecture 3  
**Physical examination in Acute coronary syndrome and heart failure:**  
*What should we focus on?*  
**Speaker:**  
Dr. I Gusti Agung Bagus Kurnia (ASEM), SpJP, FINA |
| 10:25 - 10:40 | Discussion |
| 10:40 - 11:10 | Lecture 4  
**Cardiac murmur: Interactive quiz in real cases**  
**Speaker:**  
Dr. I Dewa Gde Aditya, Dimadyana, SpJP, FINA |
| 11:10 - 11:25 | Discussion |
| 11:25 - 11:35 | Hands on and take discussion (30 minutes)  
| 11:35 - 11:40 | Post-test  
**Closing workshop:**  
1. Pembacaan pertemuan terbuka (2 oring)  
2. Pembacaan pertemuan terbuka (2 oring) |

### Workshop II: All About Atrial Septal Defect: From Diagnosis to Intervention

**Venue:** Jakarta Room B  
**PIC:** dr. Made Setia Yudha Dwangga, Sp.JP(KI)

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<td>12:40 - 13:10</td>
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| 13:10 - 13:20 | Opening by MC:  
1. Pembukaan pertemuan video call dan sponorer (bila ada) dan diso  
2. Pembacaan CV Chairman  
3. Pemerasah atau ke Chairman |
| 13:20 - 13:25 | Opening by Chairman:  
Dr. Ni Luh Ida Styani, Wulandari, SpJP, FINA |
| 13:25 - 13:35 | Pre-test  
**Lecture 1 (Kowedama):**  
**Back to Basic: Clinical Hemodynamics and Pathophysiological Concept of ASD**  
**Speaker:** Dr. Made Setia Yudha Dwangga, Sp.JP(KI) |
| 13:55 - 14:25 | Lecture 2  
**Physical Examination of ASD: What should not be missed?**  
**Speaker:** Dr. Dr. Ni Putu Viera Kartika Yanti, SpNEWS |
| 14:15-14:35 | Imaging of ASD: Focus on Trans-athoracic and Trans-esophageal Echocardiography  
**Speaker:** Dr. Ni Made Agus Wulan Sari, SpJP(KI) |
| 14:35-14:45 | Management and post-procedural issues: interventionist point of view  
**Speaker:** Dr. Tri Erna Wijayanti, SpJP(KI, FINA |
| 14:55 - 15:15 | Lecture 5  
**Solving the Problems in ASD with Pulmonary Hypertension: Which guidelines should we use?**  
**Speaker:** Dr. Arma Ufa Rahayu, SpJP(KI) |
| 15:15 - 15:45 | Real Case Discussion  
| 15:45 - 16:10 | Post-test  
**Closing workshop:**  
1. Pembacaan pertemuan terbuka (2 oring)  
2. Pembacaan pertemuan terbuka (2 oring) |

### Workshop III: Exercise Stress Test: How to Session

**Venue:** Jakarta Room C  
**PIC:** dr. A.A.A, Dwi Adella Yanti, Sp.JP(KI)

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| 10:00 - 10:20 | Registration  
| 10:20 - 10:40 | Opening by Chairman:  
Dr. I Gede Bagus Gita Pranata Putra, SpJP, FINA |
| 10:40 - 10:55 | Pre-test |
| 10:55 - 11:25 | Lecture 1  
**Overview of Exercise Physiology, Recognizing the Modalities and Protocols of Exercise Stress Test**  
**Speaker:**  
Dr. I Nyoman Wiyawan, SpJP, FINA, EAPSC |
| 11:25 - 11:40 | Discussion |
| 11:40 - 12:10 | Lecture 2  
**The Role of Exercise Stress Test in Diagnosis of CAD**  
**Speaker:**  
Prof. Dr. I Wayan Wita, SpJP(KI), FINA, FAACC |
| 12:10 - 12:35 | Discussion |
| 12:35 - 12:55 | Lecture 3  
**The Role of Exercise Stress Test in Assessing Fitness Classification and Exercise Prescription**  
**Speaker:**  
Prof. Dr. I Gede Agung Bagus Kurnia, SpJP(KI), FINA |
| 12:55 - 13:25 | Discussion |
| 13:25 - 13:55 | Lecture 4  
**Hands on Session**  
**Work Station:** Teambread Stress Test and Late Exercise |

### Workshop IV: ACS

**Venue:** Jakarta Room D  
**PIC:** dr. Made Junior Rina Artha, SpJP(KI), FINA, FAACC, FECC, FSCAI

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| 10:00 - 10:20 | Registration  
| 10:20 - 10:40 | Opening by Chairman:  
Dr. Made Gunastra, SpJP, FINA |
| 10:40 - 11:05 | Pre-test  
**Lecture 1 (Kokedama):**  
**Chest Pain in Emergency: should we consider ACS**  
**Speaker:**  
Dr. I Putu Gede Budiana, SpJP(KI), FINA |
| 11:05 - 11:35 | Lecture 2  
**East Asian Paradigm: From Evidence into Clinical Practice**  
**Speaker:**  
Dr. I Ketut Subi Surya Batur, SpJP(KI), FINA, FAACC |
| 11:35 - 12:00 | Discussion |
| 12:00 - 12:25 | Lecture 3  
**Evidence Based Original Enzytopath (Lawrence): Long Journey for Efficiency and Safety**  
**Speaker:**  
Dr. I Made Junior Rina Artha, SpJP(KI), FINA, FAACC, FECC, FSCAI |
| 12:25 - 12:55 | Discussion |
| 12:55 - 13:25 | Lecture 4  
**Primary PCI management on ACS patients**  
**Speaker:**  
Dr. Made Junior Rina Artha, SpJP(KI), FINA, FAACC, FECC, FSCAI |
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<td>Assessing LV Performance with Echocardiography</td>
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<tr>
<td>09.00 - 09.20</td>
<td>Assessing RV Performance with Echocardiography</td>
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<td>Pericardial Effusion and Tamponade Echocardiography Assessment</td>
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<td>Echocardiography as a Non-invasive Method of Hemodynamic Monitoring: What GPs can do</td>
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<td>11.50 - 12.05</td>
<td>PROVISO: SPONSOEUR</td>
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<td>12.05 - 12.15</td>
<td>Post-test</td>
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Closing workshop:
- 12.15 - 12.25
  1. Pembacaan peserta terbaik (2 orang)
  2. Penutaran video bergerak dari sponsor (pada waktu)

PROVISOUS: ALP, RORY, DEMA

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<td>14.25 - 14.35</td>
<td>Pials of Diagnosing and Managing Disorders of The Veins and How to Manage Comprehensive in Primaries Health Care Services</td>
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<td>14.55 - 15.25</td>
<td>CTI and AGI: the difference and treatment</td>
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<td>Basic duplex ultrasound for arterial/venous disorder</td>
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<td>16.10 - 16.20</td>
<td>Real Case Discussion</td>
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<td>16.20 - 17.05</td>
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<td>17.20 - 17.30</td>
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| 17.30 - 18.00 | Closing workshop:
  1. Pembacaan peserta terbaik (2 orang)
  2. Penuturan video bergerak dari sponsor (pada waktu)

PERLU 3 ORANG PROVISOUS: ALP, RORY, DEMA
IMAGING OF ASD: FOCUS ON TTE AND TEE

Ni Made Ayu Wulan Sari
Cardiology and Vascular Medicine Department
Medical Faculty Udayana University/Prof Ngoerah Hospital Denpasar Bali

(Presented in Workshop of 12th BAC UP, 23rd of Agust 2023)

ABSTRACT
Atrial septal communications account for approximately 6%–10% of congenital heart defects, with an incidence of 1 in 1,500 live births. The atrial septal defect (ASD) is among the most common acyanotic congenital cardiac lesions, occurring in 0.1% of births and accounting for 30%–40% of clinically important intracardiac shunts in adults.

TTE can be used for the initial evaluation of ASD and PFO in adults; however, TEE is required to further characterize the atrial septal abnormalities, because the TTE image quality will not always permit a comprehensive evaluation of the IAS. As with TTE, multiple and sequential TEE views should be used to completely and systematically evaluate the IAS, the size, shape, and location of any atrial communication present, and the relationship of the defect to its surrounding structures. Transthorasic echocardiography (TTE) and Transesophageal echocardiography (TEE) is the standard imaging method for atrial septal defect (ASD), patent foramen ovale (PFO) detection, for patient selection for transcatheter ASD/PFO closure, for intraoperative guidance and for long-term follow-up. The size, shape, location and the number of the atrial communications should be determined. The accuracy of ASD detection can be improved by using 3D TEE. However, with the advancements of echocardiographic techniques, it has now become apparent that the ASD is an actively contracting structure which likely plays an important role in cardiac hemodynamics. Echocardiography, particularly TEE, is currently the modality of choice for evaluation of the ASD.

Keyword : Transthorasic echocardiography, Transesophageal echocardiography, 3D Transesophageal echocardiography
IMAGING OF ASD: Focus on TTE and TEE

Ayu Wulon Sari

Imaging of ASD

Transthoracic Echocardiography (TTE)

Transesophageal Echocardiography (TEE)

Pediatric population
- subxiphoid window (the best)

Adolescence and adulthood
- subxiphoid window (inadequate)

TTE Imaging Protocol for the Atrial Septal Defect

Parasternal Short-Axis TTE View

- Posterior to the aortic root (anterior-posterior orientation)
- Aortic rim of the defect
- Posterior rim (or lack thereof)
- Atrio-ventricular and posterior atrio-ventricular defect
- The size of the defect itself should not be measured in this view!
Apical Four-Chamber TTE View

• Diagnosis and measurement of ASDs should be avoided
  • Anteversioning (ovaling of the defect rim)
  • Rim of defect to AV valve
  • Hemodynamic consequences of ASDs
    • RV and LV dilatation
    • Calculate AV jet severe TEE jet velocity and short diameter
    • RV and LV function

Subxiphoid Frontal (Four-Chamber) TTE View

• Anterior–posterior axis from the SVC to the AV valves
  • Preferred view!
    • Atrial septum near perpendicular to the ultrasound beam
    • Measurement of the defect diameter
    • The surrounding views from the defect to the right pulmonary veins

Subxiphoid Sagittal TTE View

• Superior–inferior axis
  • SVC and IVC view
  • ASD diameter

Modified Apical Four-Chamber TTE View (Half Way Between Apical Four-Chamber and Parasternal Short-Axis View)

• Alternative method from subxiphoid/subcostal view

Remember!

Color Doppler Velocity Scale

A normal ratio of the RV and RVOT wall thickness in the absence of pulmonary valve or right ventricular anomalies is a ratio of about 0.30 cm/s.

Imaging of ASD

Transesophageal Echocardiography (TEE)
TEE Imaging Protocol for the Atrial Septal Defect

Primary sector and corresponding view:

- Atrial septal defect: Location, size, and morphology
- Suitability for device closure
- HE and LE PA views
- Left and right AV views
- LVOT and RVOT views
- Right atrial view

Corona associated sector and corresponding view:

- Inferior vena cava view
- Right atrial view
- Right ventricular cavity view
- Left atrial view
- Left ventricular cavity view
- Apical 4-chamber view
- Apical 2-chamber view

Imaging Protocol

- Midesophageal Four-Chamber View
- Midesophageal Aortic Valve Short-Axis View
- Midesophageal Bicaval View
- 3D TEE

SECUNDUM ASD

Midesophageal Four-Chamber View

SECUNDUM ASD

Midesophageal AV SAX View

SECUNDUM ASD

Midesophageal Bicaval View

SECUNDUM ASD

Pulmonary Venous Drainage
MATUR SUKOSMA
CERTIFICATE

Workshop Of All About Atrial Septal Defect: From Diagnosis to Intervention

"Improving Knowledge on Latest Cardiovascular Disease: Translating Guideline into Real-World Experience"

23rd - 26th August 2023 | The Westin Nusa Dua, Bali

This certificate is proudly presented to

Eko.(K), FIHA

as SPEAKER

Chairman of the 12th Bali Cardiology Update 2023

Participant 2 SKP, Speaker 8 SKP, Moderator 2 SKP, Committee 1 SKP

Head of PERKI Bali