# 2025年7月10日(木)

JSPCCS-AEPC Joint Session

2025年7月10日(木) 11:00 ~ 12:30 第2会場（文化会館棟 1F 中ホール）

## JSPCCS-AEPC Joint Session（I-AEPCJS）
## Multidisciplinary Approaches to Infective Endocarditis in Congenital Heart Disease: From Diagnosis to Surgical Management

Chair:Mikiko Ishido（Department of Pediatric and Adult cardiology, Tokyo Women's Medical University, Tokyo, Japan）
Chair:Nico Blom（Center for Congenital Heart Disease Amsterdam-Leiden, Leiden University Medical Center, Leiden / Amsterdam University Medical Center, Amsterdam, The Netherlands）

[I-AEPCJS-1]

### Optimizing Diagnosis of Infective Endocarditis in Congenital Heart Disease: The Emerging Role of $^{18}$F-FDG PET/CT

○Ayako Ishikita[1], Tomoyasu Suenaga[1], Akiko Nishizaki[1], Takamori Kakino[1], Ichiro Sakamoto[1], Eiko Terashi[2], Kenichiro Yamamura[2], Kohtaro Abe[1] (1.Department of Cardiovascular Medicine, Kyushu University Hospital, 2.Department of Pediatrics, Kyushu University Hospital)

[I-AEPCJS-2]

### Surgical intervention for Infective endocarditis; when to proceed, and pitfall of procedure

○Takeshi Shinkawa (Department of Cardiovascular Surgery, Tokyo Women's Medical University, Tokyo, JAPAN)

[I-AEPCJS-3]

### Pathogenesis of infective endocarditis in CHD and its prevention

○Ruth Heying (Pediatric Cardiology UZ Leuven, Leuven, Belgium)

[I-AEPCJS-4]

### What have we learned - Changes in international guidelines of infective endocarditis

○Walter Knirsch[1,2] (1.Pediatric Cardiology and Children’s Research Center, University Children's Hospital Zurich, Switzerland, 2.University of Zurich, Switzerland)

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### [I-AEPCJS-1] Optimizing Diagnosis of Infective Endocarditis in Congenital Heart Disease: The Emerging Role of $^{18}$F-FDG PET/CT

○Ayako Ishikita[1], Tomoyasu Suenaga[1], Akiko Nishizaki[1], Takamori Kakino[1], Ichiro Sakamoto[1], Eiko Terashi[2], Kenichiro Yamamura[2], Kohtaro Abe[1] (1.Department of Cardiovascular Medicine, Kyushu University Hospital, 2.Department of Pediatrics, Kyushu University Hospital)
キーワード：IE、18F-FDG PET/CT、ACHD

Infective endocarditis (IE) in patients with ACHD remains a diagnostic challenge due to difficulties in detecting endocardial lesions by echocardiography. $^{18}$F-fluorodeoxyglucose ($^{18}$F-FDG) positron emission tomography/computed tomography (PET/CT) has shown good diagnostic performance in prosthetic valve IE. We reported its additional diagnostic value in ACHD-associated IE.We retrospectively studied 22 patients with ACHD and clinical suspicion of IE. $^{18}$F-FDG PET/CT was performed in addition to the conventional assessment based on the modified Duke criteria. The final IE diagnosis was determined by an expert team during a 3-month clinical course, resulting in 18 patients diagnosed with IE. Seven patients (39%) were diagnosed with definite IE only by initial echocardiography. A $^{18}$F-FDG PET/CT assessment revealed endocardial involvement in the other 9 patients, resulting in the diagnosis of definite IE in 16 in total (88%). Right-sided endocardial lesions were more common (n=12, 67%) but rarely identified by echocardiography, whereas $^{18}$F-FDG PET/CT revealed right-sided lesions in 9. A negative $^{18}$F-FDG PET/CT (n=7, 39%) assessment associated with native valve IE. In 4 patients who were identified with not-IE, neither echocardiography nor $^{18}$F-FDG PET/CT showed suspicious of the cardiac involvement. In diagnosis of ACHD-associated IE, characterized by right-sided IE, $^{18}$F-FDG PET/CT assessment should be useful. We would like to share our practice presenting several ACHD-IE cases.

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### [I-AEPCJS-2] Surgical intervention for Infective endocarditis; when to proceed, and pitfall of procedure

○Takeshi Shinkawa (Department of Cardiovascular Surgery, Tokyo Women's Medical University, Tokyo, JAPAN)
キーワード：Congenital heart disease、Infective endocarditis、Surgery

The congenital heart disease (CHD) patients carry higher risk of infective endocarditis (IE) both in children and adults compared to the normal population, due to multiple prosthetic materials in the blood circulation for the CHD repair, abnormal blood stream by CHD or the residual lesions, and possible multiple surgical/catheter-based interventions. In general, surgical intervention for IE should be considered with uncontrollable heart failure due to severe valve dysfunction or prosthetic valve infection, infectious invasion beyond the valve leaflet, systemic (and pulmonary) embolization, large mobile vegetation potential to severe embolization, and uncontrollable infection despite appropriate antibiotics therapy. The surgical indication for CHD patients with IE should be same as the "regular" IE.The purpose of the surgical intervention for IE includes removal of infectious source (vegetation and infected tissues) and restoration of hemodynamic stability. The vegetations should be removed completely (or at least as much as possible) as well as infected tissues (valve leaflets, abscess, etc.). The achievement of good hemodynamics is often very difficult or impossible without prosthetic material, despite prosthetic material should ideally be avoided. We introduce our resent surgical experience to the IE in the CHD patients at our institution, and discuss the cases requiring emergent/urgent surgeries.

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### [I-AEPCJS-3] Pathogenesis of infective endocarditis in CHD and its prevention

○Ruth Heying (Pediatric Cardiology UZ Leuven, Leuven, Belgium)
キーワード：infective endocarditis、prevention、bacterial adhesion

Infective endocarditis (IE) remains a major complication in patients with congenital heart disease (CHD). Increased use of prosthetic material and aging of the CHD population leads to an increased prevalence of IE.
This presentation summarizes on the pathogenesis of IE, the microbial profile and clinical manifestation of IE in CHD patients. Treatment options are reflected. Novel therapeutic strategies aim to minimize risk factors of IE. Preventive treatment with anti-platelet drugs has been partially introduced in clinical practice while its benefit to reduce the risk of IE remains under discussion. The presentation highlights potential preventive strategies and the role of education and prophylaxis.

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### [I-AEPCJS-4] What have we learned - Changes in international guidelines of infective endocarditis

○Walter Knirsch[1,2] (1.Pediatric Cardiology and Children’s Research Center, University Children's Hospital Zurich, Switzerland, 2.University of Zurich, Switzerland)
キーワード：Infective endocarditis、Congenital Heart Disease、Prevention

Guidelines of the prevention of infective endocarditis (IE) have been developed within the last decades, also including patients with congenital heart disease at risk of IE. The rationale of prevention of infective endocarditis includes predisposing risk factors such as (1) the anatomical substrate with endocardial lesions, (2) pathogens entering the blood stream, and (3) the immune response. In 2007, international guidelines (ESC/AHA) limited antibiotic prophylaxis for patients at high risk of IE and for high-risk dental procedures. Since 2023, prevention of infective endocarditis focus on patients at high risk depending on the type of endocardial lesions, which is highly associated with patients with prosthetic valve replacement, unrepaired cyanotic congenital heart disease, and palliative shunts/conduits, or after IE. In this patients at high risk of IE periprocedural antibiotic prophylaxis is recommended in oro-dental procedures. Nevertheless, prevention measures in daily life are a matter of concern including twice daily tooth cleaning, follow-up at least twice yearly professional dental cleaning, strict cutaneous hygiene (disinfection of wounds, treatment of chronic skin conditions), discouragement of piercing and tattooing. Patient education may enhance the awareness of symptoms of IE. In conclusion, changes in international guidelines of IE have been continuously made with adaptations of risk groups and risk procedures.

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