### Fri. Jul 6, 2018

#### 第2会場

#### 海外招請講演

### 海外招請講演3(II-IL03)

International Medical Contribution Platform 座長:石野 幸三(昭和大学病院 小児循環器・成人先天性心疾患セン ター)

10:10 AM - 10:50 AM 第2会場 (301)

## [II-IL03-01] International Medical Contribution Platform

OShunji Sano (Professor of Surgery, Division of Pediatric Cardiothoracic Surgery, University California San Francisco )

#### 海外招請講演

### 海外招請講演4(II-IL04)

座長:坂本 喜三郎 (静岡県立こども病院 心臓血管外科) 3:00 PM - 3:40 PM 第2会場 (301)

#### [II-IL04-01] TBA

○James D. St. Louis (Department of Surgery, Children's Mercy Hospital, USA)

#### 海外招請講演

### 海外招請講演5( II-IL05)

Cutting edge of pediatric heart intervention, PVI and VSD closure

座長:杉山 央(東京女子医科大学心臓病センター 循環器小児科) 3:50 PM - 4:30 PM 第2会場 (301)

[II-IL05-01] Cutting edge of pediatric heart intervention, PVI and VSD closure

Onikolaus A. HAAS (Department of Pediatric Cardiology and Intensive Care, Ludwig Maximilians University, Munich, Germany)

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### International Medical Contribution Platform

座長:石野 幸三(昭和大学病院 小児循環器・成人先天性心疾患センター) Fri. Jul 6, 2018 10:10 AM - 10:50 AM 第2会場 (301)

### [II-IL03-01] International Medical Contribution Platform

 $^{\circ}$ Shunji Sano (Professor of Surgery, Division of Pediatric Cardiothoracic Surgery, University California San Francisco )

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### [II-IL03-01] International Medical Contribution Platform

<sup>o</sup>Shunji Sano (Professor of Surgery, Division of Pediatric Cardiothoracic Surgery, University California San Francisco)

An estimated 15 million children die annually by treatable or preventable heart disease in low-middle income countries. Global efforts should have focused on reducing death from low-middle income countries with little to no attention focusing on pediatric congenital and acquired heart disease. Lack of awareness of congenital and acquired heart disease, access to care, poor health care infrastructure, competing health priorities, and a critical shortage of specialists are important reasons why pediatric heart disease has not been addressed in low resourced settings.

There are 3 types of international medical contribution. 1)Accept oversee patients to treat in Japan. 2)Visit each country to treat the patients. 3)Educate local medical people.

Since I was back from Melbourne, I started Volunteer operations in Philippine, Indonesia and China. I realized two things during time period. 1) Volunteer work doesn't last long without supporters and fund. 2)Educate local peoples are more important to save more patients.

Since 2010, our Vietnam project has been supported by JICA and Heart Link. We visit Vietnam several times a year with a team and accept them at Okayama/UCSF to teach. Cardiac units in Vietnam where they had no experience of open heart surgery less than 10kg, did more than 100 neonates and Fontan by themselves since 2010. In Vietnam, more than 7000 patients with CHD have been treated annually by local medical team now.

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Onikolaus A. HAAS (Department of Pediatric Cardiology and Intensive Care, Ludwig Maximilians University, Munich, Germany)

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# [II-IL05-01] Cutting edge of pediatric heart intervention, PVI and VSD closure

<sup>O</sup>Nikolaus A. HAAS (Department of Pediatric Cardiology and Intensive Care, Ludwig Maximilians University, Munich, Germany)

For a long time pulmonary valve replacement as well as closure of a ventricular septal defect (VSD) have been performed by a surgical approach only. Today, cutting edge technology in interventional techniques can offer minimally invasive interventional treatment for many of these lesions Interventional VSD closure was first described in 1988 and is now considered as an alternative to surgical VSD closure in selected cases. Initially the Amplatzer devices improved safety and the results

surgical VSD closure in selected cases. Initially the Amplatzer devices improved safety and the results for VSD closure, but an unacceptable high rate of permanent AV block was detected and the widespread use was abandoned. Device technology however has improved since then and VSD coil devices without the development of permanent AV block were developed. Other device companies have produced more flexible devices with better design and flexibility and so far promising results.

Percutaneous pulmonary valve implantation was first performed in 2000 and gained widespread use in Europe and the USA from 2010 onwards with the introduction of the Melody® valve and the Edwards® valves later on. Improved understanding of the preparation of the RVOT and the influence of coronary artery anatomy have made this procedure safe and suitable for many patients with acceptable long term results. Improved design of the valves and delivery system made this technique suitable for children up to a weight of 14 kg. The risk of bacterial endocarditis seems related to the biological valve components and can be minimized by the use of modern valve design.

In summary the new device generations enrich the armentarium of interventionalists for a safe approach in VSD closure and PPVI.