

Sun. Jul 9, 2017

ROOM 5

CHSS

CHSS (III-CHSS)

CHSS Session

Chair:TBA(TBA)

10:50 AM - 11:50 AM ROOM 5 (Exhibition and Event Hall Room
5)

[III-CHSS-01] The World Database for Pediatric and
Congenital Heart Surgery

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

10:50 AM - 11:50 AM

[III-CHSS-02] Congenital Section of Japan

Cardiovascular Surgery Database

○Yasutaka Hirata¹, Shinichi Takamoto² (1.
Department of Cardiac Surgery, University of
Tokyo, Japan, 2. Mitsui Memorial Hospital,
Japan)

10:50 AM - 11:50 AM

[III-CHSS-03] *Current surgical outcomes of congenital
heart surgery for patients with Down
syndrome : Scientific report using
JCCVSD*

○Takaya Hoashi (Department of Pediatric
Cardiovascular Surgery, National Cerebral and
Cardiovascular Center, Suita, Japan/ The Japan
Cardiovascular Surgery Database
Organization)

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[III-CHSS-02] Congenital Section of Japan Cardiovascular Surgery Database

○Yasutaka Hirata¹, Shinichi Takamoto² (1. Department of Cardiac Surgery, University of Tokyo, Japan, 2. Mitsui Memorial Hospital, Japan)

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[III-CHSS-03] *Current surgical outcomes of congenital heart surgery for patients with Down syndrome : Scientific report using JCCVSD*

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[III-CHSS-01] The World Database for Pediatric and Congenital Heart Surgery

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

Keywords: Outcomes, Congenital Heart Surgery, Databases

The World Database for Pediatric and Congenital heart Surgery was developed and implemented in order to satisfy the mission of the World Society for Pediatric and Congenital Heart Surgery to “*promote the highest quality of comprehensive cardiac care to all patients with congenital heart disease across the globe*”. The database began to accept submissions on January 1st of this year. This presentation will describe the history of the establishment of the database by the database committee, the mechanism by which data is submitted by member institutions, and the information that centers will receive in the form of annual data reports. We will also provide a update on current enrollment and the analysis of current data.

10:50 AM - 11:50 AM (Sun. Jul 9, 2017 10:50 AM - 11:50 AM ROOM 5)

[III-CHSS-02] Congenital Section of Japan Cardiovascular Surgery Database

○Yasutaka Hirata¹, Shinichi Takamoto² (1. Department of Cardiac Surgery, University of Tokyo, Japan, 2. Mitsui Memorial Hospital, Japan)

Congenital Section of Japan Cardiovascular Surgery Database (JCVSD) began registration in 2008. Since then, the number of participating institutions have increased to 120, almost covering all the institutions in the whole country, and the number of newly registered registrations is about 10,000 per year. Based on the accumulated data, we created a reliable risk model for congenital heart surgery in Japan and started to offer web-based performance index of each institution based on risk calculation and predicted mortality rate. In 2011, the Japanese Board of Cardiovascular Surgery started to use the JCVSD data for board certification, which improved the quality of the first paperless and web-based board certification review. We are in the process of creating better risk models and further contribute to the quality of congenital cardiovascular surgery in Japan.

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[III-CHSS-03] *Current surgical outcomes of congenital heart surgery for patients with Down syndrome : Scientific report using JCCVSD*

○Takaya Hoashi (Department of Pediatric Cardiovascular Surgery, National Cerebral and Cardiovascular Center, Suita, Japan/ The Japan Cardiovascular Surgery Database Organization)

Background: Current surgical outcomes of congenital heart surgery for patients with Down syndrome is unclear.

Methods: Of 29087 registered operations between 2008 and 2012 in the Japan Congenital Cardiovascular Surgery Database (JCCVSD), 2651 were carried out for patients with Down syndrome (9%). Of those, 5 major biventricular repair procedures: ventricular septal defect repair (n= 752), atrioventricular septal defect repair (n= 452), patent ductus arteriosus closure (n= 184), atrial septal defect repair (n= 167), tetralogy of Fallot (TOF) repair (n= 108), as well as 2 major single ventricular palliations: bidirectional Glenn (n= 21) and Fontan operation (n= 25) were selected and their outcomes were compared.

Results: The 90-day and in-hospital mortalities of all 5 major biventricular repair procedures were similarly low in patients with Down syndrome compared to patients without Down syndrome. On the other hand, mortality after Fontan operation in patients with Down syndrome was significantly higher than in patients without Down syndrome (2.7% vs 12.0%, $p= 0.005$), nevertheless all patients with Down syndrome showed preoperative pulmonary vascular resistance (PVR) of less than 4 WU/m².

Conclusions: Although intensive management for pulmonary hypertension was essential, the analysis of JCCVSD revealed that favorable early prognostic outcomes after 5 major biventricular procedures in patients with Down syndrome. Mortality after Fontan operation was still high, but seemed improving.