

小児循環器学会 外科系卒後教育ビデオセッション

## 小児循環器学会 外科系卒後教育ビデオセッション (III-PCV)

### Complex BVR Video Session - Challenges and technical solutions -

座長:池田 義(京都大学医学部附属病院 心臓血管外科)

座長:笠原 真悟(岡山大学大学院医歯薬学総合研究科 心臓血管外科)

2017年7月9日(日) 15:10 ~ 17:00 第3会場 (1F 展示イベントホール Room 3)

15:10 ~ 17:00

#### [III-PCV-02] Staged complete repair without homograft use in patients with pulmonary atresia– ventricular septal defect and major aortopulmonary collateral arteries

○Akio Imai<sup>1</sup>, Junichi Koizumi<sup>2</sup>, Takayuki Hagiwara<sup>2</sup>, Tomoyuki Iwade<sup>2</sup>, Ryoichi Kondo<sup>2</sup>, Satoshi Nakano<sup>3</sup>, Shin Takahashi<sup>3</sup>, Kotaro Oyama<sup>3</sup> (1. Department of Cardiovascular Surgery, Mt Fuji Shizuoka Children's Hospital, Japan, 2. Department of Cardiovascular Surgery, Iwate Medical University, Japan, 3. Department of Pediatric Cardiology, Iwate Medical University, Japan)

キーワード : PAVSD MAPCA, unifocalization, Rastelli

Objective: Repair of PAVSD and MAPCAs remains challenging, particularly without the use of a homograft. We show our surgical strategy consisting of primary unifocalization and staged complete repair in video.

Methods: Since 2007, 11 consecutive patients with PA-VSD and MAPCAs underwent primary unifocalization (UF). Median patient age and body weight were 7.3 months and 7.3 kg, respectively.

Surgical technique of primary UF: A median sternotomy incision of a length longer than is usually made. Central dissection for MAPCAs was performed without cardiopulmonary bypass. After initiation of cardiopulmonary bypass, origins of all MAPCAs were clamped with a vascular clip. All patients underwent primary UF using tissue-to-tissue anastomosis with continuous 8-0 polypropylene suture. The central pulmonary artery (PA) was absent or diminutive in all cases; therefore, the floor of the central PA was created using MAPCAs with end-to-end anastomosis. The anterior wall of the central PA was created using a fresh autologous pericardial patch with a target diameter of at least 10 mm. The source of pulmonary blood flow was established using a modified Blalock-Taussig shunt.

Results: There was one early death. Post-UF cardiac catheterization showed that mean PA pressure was 16.1 mmHg. Ten patients underwent staged complete repair at a mean interval of 7.1 months after UF.

The median ePTFE conduit diameter was 16 mm. The mean intraoperative RV/LV ratio was 0.53.

Conclusions: Even without a homograft, primary UF was completely and successfully performed.