

シンポジウム | 外科治療

シンポジウム06 (III-S06)

外科治療「機能的単心室に対するシャント手術」

座長:猪飼 秋夫 (静岡県立こども病院 心臓血管外科)

座長:帆足 孝也 (国立循環器病研究センター)

Tue. Nov 24, 2020 3:00 PM - 5:00 PM Track2

[III-S06-1] 【基調講演】 Long-Term outcome up to 20 years following the neonatal Norwood procedure in 322 patients : comparison of modified BT shunt and RV-PA conduit

○Jürgen Hörer, Strbad M, Ono M, Cleuziou J, Ewert P (Department for congenital and pediatric heart surgery, German Heart Centre Munich (TUM) / Division for congenital and pediatric heart surgery, University Hospital of Munich (LMU))

Objective: The ideal shunt for pulmonary blood flow, modified Blalock-Taussig shunt (MBTS) or right ventricular-pulmonary artery shunt (RVPAS), is yet to be determined. This study aimed to evaluate outcomes after the Norwood procedure according to the type of shunt.

Method: A total of 322 neonates with hypoplastic left heart syndrome (HLHS) and related anomalies who underwent the Norwood procedure at our institution between 2001 and 2019 were divided into two groups with MBTS or RVPAS, respectively and the outcomes after the Norwood procedure were compared between both groups with respect to mortality after each staged procedure.

Results: We identified 322 consequent patients who underwent neonatal Norwood procedure for HLHS (271 patients, 84.2%) and its variants (51 patients, 15.8%). RVPAS was performed in 163 (50.6%) patients and MBTS was performed in 159 (49.4%). There were no differences in the rate of early death (11.0% vs. 12.6%, $p=0.699$) or late death (7.4% vs. 6.9%, $p=0.877$) between RVPAS and MBTS after the Norwood procedure, and no significant difference in the number of patients who reached bidirectional cavopulmonary shunt (BCPS, 77.9% vs. 76.1%, $p=0.699$), and there was no difference in mortality after BCPS (12.3% vs. 7.5%, $p=0.157$) or Fontan completion rate (54.0% vs. 52.2%, $p=0.426$) between the patients with RVPAS and MBTS. Survival at 0.5, 1, 3, and 6 years after the Norwood procedure was 81.0%, 73.8%, 67.9%, and 67.0% in patients with RVPAS and 77.1%, 73.3%, 69.1%, and 67.9% in patients with MBTS. There was no significant difference in the survival between the two groups during median follow-up of 2.6 (IQR: 0.3-8.4, maximal 18.8) years ($p=0.972$).

Conclusions: In neonates undergoing the Norwood procedure, our available data of maximal 18.8 years follow-up showed no significant difference in early mortality, inter-stage attritions, or overall survival, between MBTS and RVPAS.