

JCK Oral

JCK Oral 3 (II-JCKO3)

Cardiac Surgery

Chair:Tetsuya Kitagawa(Department of Cardiovascular Surgery, Institute of Biomedical Sciences, Tokushima University Graduate School, Japan)

Chair:Fen Li(Department of Cardiology, Shanghai Children's Medical Center, China)

Chair:Tae Gook Jun(Department of Thoracic and Cardiovascular Surgery Sungkyunkwan University School of Medicine, Heart Vascular Stroke Institute, Samsung Medical Center,Korea)

Sat. Jul 8, 2017 1:50 PM - 3:20 PM ROOM 3 (Exhibition and Event Hall Room 3)

1:50 PM - 3:20 PM

[II-JCKO3-04]Application of a simplified hand-sewn trileaflet valved conduit in RVOTreconstruction as an alternative for bovine jugular vein graft

○Huifeng Zhang, Bing Jia (Cardiovascular Center,Children's Hospital of Fudan University,Shanghai,China)

Background: The Bovine jugular vein (BJV) graft for right ventricular outflow tract reconstruction (RVOT) is limited applied due to possible graft failure. In this study, we reported the clinical application of simplified hand-sewn trileaflet valved conduit as an alternative for BJV graft.

Methods: We retrospectively included 68 patients underwent 73 conduits implantation including 22 new simplified hand-sewn trileaflet valved conduits (Group A) and 54 BJV grafts (Group B). For patients in Group A, a hand-sewn trileaflet valved conduit with valves made of autologous pericardium or expanded polytetrafluoroethylene was applied. Baseline, perioperative, and outcomes were analyzed.

Results: No early mortality or perioperative complication occurred in Group A, while 2 patients died and 16 patients suffered from conduits failure due to conduits stenosis (11), stenosis plus regurgitation (n=3), and regurgitation alone (n=2) in Group B. Freedom from BJV grafts failure within 1, 3, 5, and 7 years was 98.0%, 88.2%, 83.6% and 83.6% in Group A, and 98.0%, 85.8%, 76.8% and 62.1% in Group B. Endocarditis occurred in 9 patients in Group B, but not in Group A. Subsequent analysis showed that endocarditis is the only significant predictor of BJV grafts failure (odds ratio: 6.202, 95% confidence intervals 1.237~31.108).

Conclusions: The novel simplified hand-sewn trileaflet valved conduits seems to be associated with lower incidences of perioperative complication, graft failure, and early-phase mortality, as compared with conventional BJV grafts.