

JCK E-Oral Presentation

JCK E-Oral Presentation 2 (III-JCKEOP02)

Chair: Atsuko Kato (Division of Cardiology, The Labatt Family Heart Centre, Department of Pediatrics, The Hospital for Sick Children, University of Toronto, Toronto, Canada)

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Sun. Jul 9, 2017 1:00 PM - 2:00 PM E-Oral Presentation Area (Exhibition and Event Hall)

1:00 PM - 2:00 PM

[III-JCKEOP02-01] Transcatheter closure of doubly committed VSDs - a 5 year single centre experience

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Background: There remains international debate regarding efficacy and safety of transcatheter closure of doubly committed VSDs (DCVSD). This study reports a 5 year single centre experience.

Methods: Retrospective review, October 2009 to Jul 2014; 44 patients underwent device closure of DCVSD. Selection criteria: Weight >10kg, no severe/moderate AR or cusp prolapse, defect <7mm, no other intra-cardiac abnormalities, plus evidence of pulmonary hypertension, left heart volume loading, or trivial/mild AR or cusp prolapse. Technique: Anterograde approach and AV loop, angiographic re-evaluation, echocardiographic evaluation of AR and outflow.

Results: Median age 63 months (10-170), weight 18kg (8-32), defect 3.7mm (2-6). Associated abnormalities: trivial to mild AR; 1 (2.3%), left heart dilation; 10 (22.7%), MR; 3 (6.8%), coronary cusp prolapse; 11 (25.0%). Devices used: PFM Coil: 10 (22.7%), ADO II: 21 (47.7%), PFM Coil and ADO II 13 (29.5%). Post-procedure murmur in 20: residual shunt disappeared on echo <48 hours in 18 (56.2%) the remainder after 6 months. Complications: haemolysis: 1 (2.3%) referred for surgery, embolization: 1 (2.3%), residual shunt 1 (2.3%) referred for surgery, RV outflow obstruction: 5 (11.4%) all resolved <3 months, AR increased: 4 (9.0%) 3 recovered to baseline <1 month, one referred for surgery. Mild LV outflow obstruction: 1 (2.3%) resolved <2 months.

Conclusion: Device closure of DCVSD is a controversial but effective and safe option in selected patients. Coils are associated with a greater incidence of haemolysis than ADO II or Coil & ADO II.