Thu. Jul 5, 2018

第4会場

AEPC-YIA 選別講演

AEPC-YIA 選別講演（ I-YIA）

座長:坂本 喜三郎（静岡県立こども病院 心臓血管外科）
座長:Gurleen Sharland（Evelina Children's Hospital）
9:10 AM - 9:40 AM 第4会場 (303)

[I-YIA-01] Longitudinal Hemodynamic Assessment of Fetuses with TGA to Predict The Perinatal Course – The Pilot Study

○Agnieszka Grzyb[1,3], Adam Kolesnik[2,3], Joanna Duliban[3], Monika Kowalczyk-Domagala[1], Maria Zubrzycka[2], Grazyna Brzezinska-Rajszys[1,2], Renata Bokiniec[4], Joanna Dangel[3]（1.Cardiology Department, The Children's Memorial Health Institute, Warsaw, Poland, 2.Heart Catheterization Laboratory, The Children's Memorial Health Institute, Warsaw, Poland, 3.Perinatal Cardiology and Congenital Anomalies Department, Centre of Postgraduate Medical Education, Warsaw, Poland, 4.Neonatology and Neonatal Intensive Care Department, Medical University of Warsaw, Warsaw, Poland）

[I-YIA-02] A validation study of the European Society of Cardiology guidelines for risk stratification of sudden cardiac death in childhood hypertrophic cardiomyopathy

○Gabrielle Norrish[1,2], Christina Ding[3], Ella Field[1,2], Paediatric Hypertrophic Cardiomyopathy Investigators*,[4], Rumana Omar[3], Juan Pablo Kaski[1,2]（1.Great Ormond Street Hospital, London UK, 2.Institute of Cardiovascular Sciences University College London, UK, 3.Department of Statistical Science, University College London, London UK）

[I-YIA-03] Fever within 48h after Melody implantation is a risk factor of late infective endocarditis

○O Villemain[1], N. Ben Moussa[2], S Malekzadeh-Milani[1], M. Meot1, Ma Mostefa-Kara[1], D. Bonnet[1], Y Boudjemline[1]（1.M3C-Necker Enfants malades, AP-HP, Université Paris Descartes, Sorbonne Paris Cité, Paris, France, 2.Cardiology Department, Hopital Européen Georges Pompidou, Paris, France）

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Transposition of the great arteries (TGA) is one of the most common congenital heart diseases, well-tolerated prenatally, however life-threatening for the newborn. The main concerns are: the foramen ovale (FO) restriction and persistent pulmonary hypertension (PPHN).
The aim of this study is to predict the hemodynamic status of the newborn with TGA based on longitudinal prenatal echocardiographic observation.

Methods: Retrospective-prospective analysis of echocardiographic examinations of 70 fetuses with simple TGA.

Results: Based on our observations we developed a flowchart of fetal TGA assessment presented below. Its usefulness in predicting the newborn’ s condition is shown in the table.

1. FO flow R→ L or bidirectional:
a. blood mixing (Color Doppler) clearly visible→ NO RESTRICTION.
b. mixing limited by interatrial septum [IAS] → go to point 2/3.
2. Short, thickened, usually hypermobile FO valve, R→ L unrestrictive DA flow, systolic velocity PT=Ao or PT>Ao→ FO RESTRICTION.
3. Long FO valve bulging deeply into the left atrium:
a. DA L→ R diastolic flow, systolic velocity PTb. If in subsequent examinations the atrial septum excursion decreases or septum becomes hypermobile; end-systolic and/or diastolic L→ R DA flow→ increased pulmonary flow→ RISK OF PPHN.
4. DA restriction/narrowing OR long lasting (≥5 weeks) limited interatrial mixing→ HIGH RISK OF PPHN.
5. Obligatory assessment every 1-2 week after 35 week of pregnancy.

Conclusions: Longitudinal assessment of fetal TGA hemodynamics seems to predict the newborn’ s condition with high accuracy and specificity, which is important in planning the perinatal period, especially in cases with suspected PPHN.

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in childhood hypertrophic cardiomyopathy

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TBA

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Objectives. Fever following pulmonary valve implantation is known but its frequency and impact have been poorly described. The aim of this study was to analyze clinical and biological parameters of inflammation just after the Melody valve implantation, and to see if early onset of inflammation can predict the risk of late infective endocarditis (IE).

Methods. We performed a retrospective study on patients with Melody valve implanted for dysfunctional RVOT in our unit between January 2008 and December 2016. All clinical and biological inflammatory parameters following Melody implantation were recorded.

Results. 198 patients were included (median age=22.8 [Q1-Q3: 15.4-31.5] years). Before the procedure, the RVOT statute of patients was: 74 (37.4%) pulmonary valved conduits, 57 (28.8%) natives (with or without valve), 50 (25.2%) homografts, and 17 (8.6%) valveless conduits. Within 48h post procedure, 58 patients (29.3%) had fever [T>37.9°C] and 140 patients (70.7%) had no fever, 98 patients (49.5%) had a CRP >5mg/L, and 61 patients (30.8%) had white blood cells (WBC) >10G/L. 55 patients received large spectral antibiotic regimen waiting for results of blood culture. No patients were found to have early IE and antibiotics were stopped after a median duration of 2 [1-2] days. Length of stay was longer in patients with fever compared to those without fever (p<0.001).
The median follow-up was 3.3 [1.3-5.3] years. Twenty-one patients developed IE (10.6%), with a median at 1.8 [0.3-3.5] years. At 5 years, freedom from IE was 87.2%. Fever within 48h post procedure was a significative risk factor (HR=6.1, $IC_{95\%}$[2.5-15.1], p<0.001). At 5 years, freedom from IE was 88.5% for patients without fever and 67.7% patients with fever within 48h post procedure (p<0.001). Elevated post-procedural WBC (p=0.62), CRP level (p=0.90), and initial RVOT statute of patients (p=0.70) were not a risk factor for IE.

Conclusion. Patients with fever within 48 hours after Melody valve implantation are at particular risk of IE in their life. The reasons might be related to a specific genetic profile. Further studies are needed to understand the causes behind.