

AP Target Symposium

AP Target Symposium 1 (I-APT1)

Dealing with the borderline Left Ventricle - What are the requirements for biventricular circulation, and how to get there?

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Fri. Jul 7, 2017 2:35 PM - 4:05 PM ROOM 3 (Exhibition and Event Hall Room 3)

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[I-APT1-06] What are the requirements for biventricular circulation, and how to get there ?

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"Hypoplastic left heart syndrome" is an unsatisfactory term describing lethal underdevelopment of the left ventricle (LV). It represents the more severe end of a spectrum of LV hypoplasia, mandating single-ventricle palliation or cardiac transplantation. Less severe "borderline" ventricular hypoplasia may instead allow various biventricular therapeutic strategies and better long-term outcomes. These "borderline ventricles" of moderate hypoplasia represent a clinical decision-management problem, because the decision to pursue biventricular repair or univentricular repair must frequently be made in the first few days of life. This decision is difficult to reverse and may prove fatal if incorrect. The LV rehabilitation procedure was associated with low operative mortality, immediate improvement in left atrial and right ventricular pressures, and maintenance of biventricular circulation at mid-term follow-up. Risk factors that have been associated with poor outcome after biventricular repair include the size and multiplicity of the left-sided obstructive lesions and the presence of EFE. Higher grade of EFE has been shown to be a strong predictor of mortality after biventricular repair. The poor prognosis in patients with circumferential EFE may be due to impairment of both systolic and diastolic ventricular performance. Primary LV rehabilitation procedure, when applied to patients with borderline left heart structures and severe EFE, allows maintenance of biventricular circulation with low operative mortality.