

Left ventricular thrombosis following a Norwood procedure

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A MALE INFANT, BORN AT TERM, UNDERWENT A Norwood procedure on the second day of life, having been diagnosed with hypoplastic left heart syndrome at 22 weeks gestation. Pre-operative echocardiography had revealed critical mitral stenosis, aortic atresia, a slit-like and very restrictive interatrial communication, and “smoke” from stasis of blood in the left ventricle. Three days after the procedure, echocardiography demonstrated that the left ventricle was completely filled with solid thrombus (Fig. 1, Abbreviations: PA: proximal pulmonary trunk, or “neo-aorta”; RV: right ventricle; T: thrombus). We presume this was due to ongoing perioperative stasis within the ventricle. We treated the patient with low molecular weight heparin, starting on the fourth post-operative day, to prevent thrombosis of the systemic-to-pulmonary arterial shunt. Ten days after the operation, the left ventricular thrombus had completely resolved (Fig. 2, Abbreviations: LV: left ventricle; RV: right ventricle; RA: right atrium; LA: left atrium). It did not recur during early follow-up, and, at the time of construction of the bi-directional cavopulmonary anastomosis at four months of age, the left ventricle remained non-contractile, but without an intracavitary clot. As far as we are aware, there are no other reports in the English language describing left ventricular thrombosis following the Norwood procedure, although Brennan et al.¹ have described thrombosis of the native aortic root.

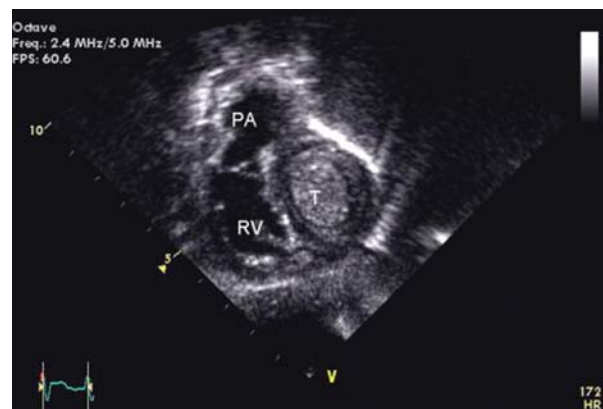


Figure 1.

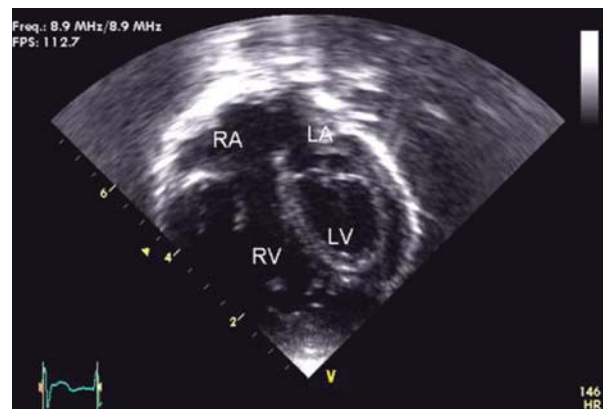


Figure 2.

Reference

1. Brennan TV, Rodefeld MD, Tacy TA, Reddy VM, Hanley FL. Late thrombosis of the native aortic root after Norwood reconstruction for hypoplastic left heart syndrome. *J Thorac Cardiovasc Surg* 2001; 121: 580–582.

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