

Bailout stenting successful treatment for infants with constricted aortas

March 18 2010

Cardiac interventionalists and surgeons at University Clinic in Leuven, Belgium have achieved successful stent implantation and follow-up coarctectomy in premature infants suffering from aortic coarctation. Full findings are published in the March issue of *Catheterization and Cardiovascular Interventions*, the official journal of The Society for Cardiovascular Angiography and Interventions.

Aortic coarctation is a common congenital condition characterized by a narrowing of the aorta, a major blood vessel leaving the heart. The narrowed aorta reduces blood flow to the lower extremities and causes [heart failure](#) in infants. The condition may be diagnosed at birth or in early childhood, at which time it can be corrected by surgery, however surgical repair is extremely risky in [premature babies](#). Prostaglandin E1 infusion is the standard treatment to recover or maintain systemic flow in a neonate (infant) with critical coarctation prior to elective surgical repair. However, this treatment may not restore sufficient blood flow in time and can be associated with considerable side effects when given for a prolonged time.

A research team led by Marc Gewillig, M.D., Ph.D., evaluated the safety and efficacy of stenting a coarcted aortic arch in critically ill neonates in order to defer corrective surgery until the infants had stabilized and gained weight. Dr. Gewillig explained, "Significant arch obstruction in critically ill infants currently requires a [surgical intervention](#), but how and when to proceed with the surgery is crucial to successful outcomes. Our goal of stenting the coarctation was to provide the surgeon with a

bigger and better patient for surgery to correct the arch obstruction."

The study covered 15 infants less than 2 months of age between January 1, 1998 and March 30, 2009. The infants were between 30-41 weeks of gestation; 8 out of 15 were premature (

Citation: Bailout stenting successful treatment for infants with constricted aortas (2010, March 18) retrieved 24 April 2024 from <https://medicalxpress.com/news/2010-03-bailout-stenting-successful-treatment-infants.html>

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