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Incidence of Pulmonary Artery Complications after Flo Watch Pulmonary Artery Banding

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Objective:

An assumed advantage of the Flow Watch pulmonary artery (PA) band is that it has a low incidence of PA distortion and requirement for PA reconstruction after its removal. We describe our experience with Flo Watch PA banding with regard to pulmonary complications in a large single-centre population.

Methods:

A retrospective analysis of all the patients, at our centre, who underwent Flo Watch PA banding to control the pulmonary blood flow for initial single ventricle or bi-ventricle palliation.

Results:

56 patients needed Flo Watch PA band between December 2003 and June 2010. 14/56 (25%) had single ventricle morphology and 42/56 (75%) biventricular morphology. Mean age at the time of PA band was 141 (range 7-1486) days and the mean weight 4.7 (range 2.6-15.9) kg. There were 7 deaths in our series, 6 were late deaths and were not associated with PA band. There was 1 early death. 27/56 (48%) had their band removed for next stage surgery and 29/56 (52%) still had the band in place. 18/27 (66%) did not have any PA distortion and did not need any patch enlargement. However, 9/27 (33%) had PA distortion and needed patch enlargement. In 2/27 (7%) the Flo Watch was found to have eroded through the MPA at the time of its removal.

Conclusion:

Though telemetric Flo Watch PA banding does have undoubted advantages in terms of adjustability of pulmonary flow without reoperation, there is a significant incidence of pulmonary artery distortion requiring patch reconstruction.