

Balloon atrial septostomy at the bedside versus the catheterisation laboratory

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Letter to the Editor

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Abstract

A shorter umbilical venous approach provides an opportunity for balloon atrial septostomy in the younger neonate as opposed to those who present at the end of first week of life. However, the ideal choice of access for a bedside balloon atrial septostomy is not well established. Wouldn't prostaglandin infusion be a safer option for transport of babies with dextro-transposition in the neonatal period, when the arterial duct can be kept open? A prenatal diagnosis of dextro-transposition facilitates monitoring and planning of septostomy in the early neonatal period explaining why babies underwent bedside procedures more often.

The article by Savorgnan et al highlighted the benefits of balloon atrial septostomy at the bedside as compared to the procedure conducted at the catheterisation laboratory.¹ Although we agree with the authors on most aspects, there are a few points that we thought would merit discussion before one could think of a change in practice.

The earlier performance of a bedside balloon atrial septostomy as compared to a catheterisation procedure is not unexpected as this provides an opportunity for septostomy by a shorter umbilical venous approach, unlike a conventional femoral venous approach in the latter. We could not find out the access preference in either arms in the index study. It would be ideal for the authors to detail whether the post-procedure care differed in either arm with respect to stay in the intensive care, necrotising enterocolitis, and resumption of feeds, particularly with an umbilical access. In the developing world, we get several referrals of transposition beyond the first week of life where the umbilical access is unavailable.² Although we fully accept the virtues of an echocardiography-guided procedure by a paediatric cardiologist as opposed to a purely fluoroscopy-guided balloon atrial septostomy, doubts remain on the ideal choice of access for a bedside procedure. This is particularly relevant in the setting where atrial septostomy is considered primarily as a mode of stabilisation at a referring hospital before transport to a tertiary paediatric cardiac facility. Wouldn't prostaglandin infusion be a safer option for transport of babies with dextro-transposition in the neonatal period, when the arterial duct can be kept open?

A prenatal diagnosis of dextro-transposition facilitates monitoring and planning of balloon atrial septostomy in the early neonatal period. Could this not explain why these babies underwent bedside procedures more often in the index study? How often do the centres involved in the study take up babies with dextro-transposition and intact interventricular septum for arterial switch operation without a balloon septostomy?

While the authors conclude that a bedside procedure offered equivalent safety and clinical outcomes as compared to a procedure in the catheterisation laboratory, would it not be appropriate to limit this conclusion to those who present in the early neonatal period, particularly in the absence of randomised data? We have come across tough situations with septostomy in the latter part of first month of life and beyond where it was difficult to create an adequate interatrial communication, and the thick septum resulting in embolic complications. It would be nice to get the authors' perspectives on some of these queries, which we are sure would help many readers.

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Conflicts of Interest. None

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