

4th International Conference on Clinical & Experimental Cardiology

April 14-16, 2014 Hilton San Antonio Airport, TX, USA

Simultaneous transcatheter valvuloplasty and atrial septal occlusion in cases of trilog of fallot

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Background: Congenital pulmonary valve stenosis (PS) and secundum atrial septal defect (ASD) are relatively common forms of congenital heart diseases but combination of these two conditions is rare. Dual intervention in patients with congenital heart defect have been reported and few cases of combined of transcatheter valvuloplasty for PS and percutaneous ASD closure have been reported.

Objective: To study the effectiveness and safety of simultaneous transcatheter valvuloplasty and atrial septal occlusion in cases of Trilog of Fallout.

Methods: 4 patients with Trilog of Fallot with mean age of 11.25 years presented, between April 2009 and Oct 2013. The diagnosis was established by clinical examination & echocardiography. They underwent cardiac catheterization and as there was a significant gradient across the pulmonary valve, successful balloon pulmonary valvotomy (BPV) was done. This was followed by ASD device closure under TEE guidance. The mean procedural time was 90 minutes (60-120 mts). One patient (patient 2) went into transient pulmonary edema post-BPV which settled after diuretics, nitroglycerine and morphine.

Conclusion: In our 4 patients, percutaneous treatment was effective with successful ASD occlusion and right ventricular pressure relief. It is feasible to do BPV followed by ASD device closure as this prevents an increased left to right shunt and at the same time the device placement is not disturbed by arrhythmias and ectopics as we pre-dilate the PV.

It is also convenient for the patient to undergo BPV and ASD device closure concurrently and avoid open heart surgery with quicker recovery, less morbidity and shorter hospital stay. The series also highlights the need to monitor patients closely in the post-operative period, especially those with long standing pulmonary stenosis for sudden onset of acute pulmonary edema/hemorrhage.

Biography

Bhanu Duggal is an Associate Professor of Cardiology, at Grant Medical College and Sir JJ Group of Hospitals, India. She has many publications in National and International Journals. And also done a fellowship in structural heart disease at Royal Brompton Hospital, UK and training in Intravascular Ultrasound at Cleveland Clinic, USA

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