

Interventional pediatric cardiology - State of the art

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Surgery has been the traditional treatment option for palliation and correction of congenital and acquired heart defects in infants and children. While attempts to accomplish such therapy via transcatheter methods began in early 50s and 60s, it is not until mid-80s were transcatheter treatment modes became a reality. During the last three decades, a remarkable number of transcatheter methods were developed and refined such that a large variety of structural heart defects can be managed solely with transcatheter methodology. In some defects, transcatheter methods serve as useful adjuncts to surgery.

This presentation will review catheter-based 1. Closure of patent ductus arteriosus, atrial septal defect and ventricular septal defect with currently FDA-approved devices; 2. Balloon dilatation of pulmonary and aortic valve stenoses, coarctation of the aorta and other stenotic lesions; 3. Intravascular stents for vascular obstructive lesions that cannot be satisfactorily balloon-dilated, including branch pulmonary artery stenosis, aortic coarctation and systemic venous obstructions; 4. Atrial septostomy with Rashkind's balloon, Park's blade, static balloon dilatation and implantation of stents across the atrial septum; 5. Occlusion of superfluous, unwanted blood vessels with Gianturco coils and Amplatzer vascular plugs; 6. Percutaneous implantation of pulmonary valves and aortic valves, which are under active investigation. History, indications, technique and results will be discussed in that order.

Recent advances in transcatheter therapy have added a new dimension to the management of congenital heart disease. They should now be added to the armamentarium available in the management of cardiac problems in the pediatric patient.

Biography

P. Syamasundar Rao has completed his medical degree from Andhra Medical College/Andhra University, Visakhapatnam, India and postdoctoral studies in Pediatric Cardiology from Stanford University, Palo Alto, Case-Western Reserve University, Cleveland and UCLA, Los Angeles Schools of Medicine. He is currently Professor of Pediatrics & Medicine, Emeritus Chief of Pediatric Cardiology at University of Texas-Houston Medical School, Houston, USA. He has published more than 350 papers in reputed journals, 230 abstracts and presentations, 150 invited presentations & lectureships, 7 monographs and books and 55 book chapters. His special interests are Physiologically Advantageous Ventricular Septal Defects, Tricuspid Atresia and Transcatheter Management of Heart Defects.

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