

Specific Comments To Authors: This is a well-written review article aimed to extensively describe the technique, current roles, and future implications of transcatheter pulmonic valve implantation. There are some issues that the authors should attend to: Abstract 1. Keywords: Please use keywords using MeSH (<http://www.ncbi.nlm.nih.gov/mesh>) terminology. Indication for intervention 1. For the indication of TPVI, it's better to add 'RV end diastolic volume > 2 times of LV end diastolic volume) for RV volume overloading criteria.

We have added an abstract to the manuscript. Abstract Right ventricular outflow tract (RVOT) obstruction is present in a variety of congenital heart disease states including tetralogy of Fallot (TOF), pulmonary atresia / stenosis and other conotruncal abnormalities etc. After surgical repair, these patients develop RVOT residual abnormalities of pulmonic stenosis and/or insufficiency of their native outflow tract or right ventricle to pulmonary artery conduit. There are also sequelae of other surgeries like the Ross operation for aortic valve disease that lead to right ventricle to pulmonary artery conduit dysfunction. Surgical pulmonic valve replacement (SPVR) has been the mainstay for these patients and is considered standard of care. Transcatheter pulmonic valve implantation (TPVI) was first reported in 2000 and has made strides as a comparable alternative to SPVR being approved in the United States in 2010. We provide a comprehensive review in this space – indications for TPVI, detailed procedural facets and up-to-date review of the literature regarding outcomes of TPVI. TPVI has been shown to have favorable medium-term outcomes free of re-interventions especially after the adoption of the practice of pre-stenting the RVOT. Procedural mortality and complications are uncommon. With more experience, recognition of risk of dreaded outcomes like coronary compression has improved. Also, conduit rupture is increasingly being managed with transcatheter tools. Questions over endocarditis risk still prevail in the TPVI population. Head to head comparisons to SPVR are still limited but available data suggests equivalence. We also discuss newer valve technologies that have limited data currently and may have more applicability for treatment of native dysfunctional RVOT substrates. Please use keywords using MeSH (<http://www.ncbi.nlm.nih.gov/mesh>) terminology. We have used keywords using MeSH terminology: Key Words: Pulmonary valve; Congenital heart defects; Heart valve prosthesis implant; Pulmonary valve insufficiency; Pulmonary atresia; Pulmonary valve stenosis For the indication of TPVI, it's better to add 'RV end diastolic volume > 2 times of LV end diastolic volume) for RV volume overloading criteria. This specific indication has been added to the methods