

Pediatric cardiac surgery – The road travelled and the road ahead

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It was the desire to cure the congenital cardiac diseases, which was mainly responsible for the beginning of cardiovascular surgery and for fuelling its rapid growth in the initial years. Beginning with very innovative methods like controlled cross circulation, the cardiopulmonary bypass as a method to repair cardiac defects is more or less standardized. A lot of work needs to be done in mitigating the deleterious effect of CPB in neonates and other low birth weight babies.

Beginning with conquering simple defects like atrial and ventricular septal defects, tetralogy of fallot, and the outcome for complex procedures have progressively improved with transposition of great arteries and TAPVC now having operative success of > 95% in most centres. The growth of Pediatric cardiac surgery is closely interlinked with the development in related areas of imaging, anesthesia and intensive care.

Long term management of single ventricle and its complications still poses considerable challenge particularly the ones with increased pulmonary blood flow. Significant strides have been made in area of valve repair in children, though an artificial scaffold with a capacity to grow and replace the natural valve is yet to realize its promise Completely understanding the pulmonary circulation, creation of valves which grow, fetal interventions, minimally invasive surgery, novel modalities of imaging, biological pacemakers etc are active avenues of research. The presentation would briefly cover the growth and development of Pediatric cardiac surgery from both international and Indian standpoint, the current scenario and the future prospects.

Biography

Krishnan Ganapathy Subramaniam completed his medical education in All India Institute of Medical Sciences, in 2005. After being associated with one of pioneers of Cardiac Surgery Dr K. M. Cherian and brief stint as fellow in Sydney Children's Hospital and as a consultant in Lotus Children's Hospital, Hyderabad. He has joined Apollo Children's Hospital Chennai as Consultant from 2012. He has over 35 publications numerous presentations in national and international conferences. He has been awarded the Young Investigator award by the PCSI (Pediatric Cardiac Society of India). His areas of interest include neonatal, minimally invasive cardiac surgery, single ventricle and valve repairs.

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