

Heart Diseases in Children

Heart diseases in children can be congenital or acquired in origin, although most are congenital and exist already at birth. Antenatal diagnosis of congenital heart defects is feasible as the heart is formed at 2 months of gestation. The prevalence is 6-8 per 1,000 live births. In the majority (90%), the cause is unknown, relating probably to gene-environment interactions, while 5-8% is related to genetic disorders, and 2% are environmental factors because of antenatal rubella infection, certain drugs and gestational diabetes mellitus. Ventricular and atrial septal defects, patent ductus arteriosus, tetralogy of Fallot, transposition of great arteries and stenotic heart valves are examples of congenital heart disease. On the other hand, Kawasaki disease, rheumatic heart disease, myocarditis, and cardiomyopathies are examples of acquired heart disease. Unlike adult heart patients, children with heart disease seldom present with sudden cardiac death. The common childhood presentations include cardiac murmurs, poor growth, loss of appetite, easy fatigue and breathlessness on exertion, recurrent chest infections, swelling of the face and limbs, and cyanosis. Medical consultation is required if one or more of these features occurs. Most of the heart conditions can be managed by medical treatments and surgery. Starting from 1990s, the Department of Paediatrics and Adolescent Medicine, HKU LKS Faculty of Medicine, has successfully introduced catheter interventions for treating different types of congenital heart disease, including septal defects and stenotic heart valves, with the advantages being scarless, less invasive, and requiring short duration of hospitalization.