

Heart Disease on Children

Aditya Agita Sembiring

Not only adult, children may also have heart disease. The heart disease that children have since birth is called congenital heart disease and acquired heart disease is for heart disease that develop in childhood. There are many children who suffer congenital heart disease in Indonesia which around 8-9 per 1000 life birth. Congenital heart disease is divided into the blue one (cyanotic) or without blue one (acyanotic). The acyanotic shown in Figure 1 is the abnormality of heart septal like atrial septal defect, ventricular septal defect, or even the blood vessel failure to bridging systemic circulation of body to lungs circulation that called patent ductus arteriosus. The acyanotic or congenital heart disease without blue sign usually has a heavy blood flow to lungs that cause patient having no blue skin symptoms or looking blue. It is because the high oxygen level may push the lungs blood vessel or it may called pulmonary hypertension. As a result, children may get tired easily, difficult to breath, having cough and fever at many times, distracted to have breastfeeding over time, or even disturb childhood development.

According to its mechanism, the cyanotic or blue condition congenital heart disease can be divided into three groups.

No	Description			
1.	Obstruction lung blood vessel with defect in heart septal			
	Tetralogy of Fallot	Pulmonary Atresia	Pulmonary Stenosis	Ebstein Anomaly
2.	Blood mixing between oxygenated and deoxygenated blood or called common mixing			
	Total Anomalous Pulmonary Venous Drainage is a condition where blood got mixed before enter the heart	Common Atrium is a condition where blood got mixed in the atrium	Double inlet and Double outlet is a condition where blood got mixed in ventricle	Truncus Arteriosus is a condition where blood got mixed in aorta
3.	Exchanging in great arteries or called Transposition of the Great Arteries			

Meanwhile, acquired heart disease occurred on childhood and consists of many heterogenous disease. Most cases that found in National Cardiovascular Center Harapan Kita are below.

- Rheumatic Heart Disease where toxin produced by microbe infected of group A streptococcus (GAS) that cause abnormality immune response so that chronic heart inflammation occurred with hole on heart valve manifested.
- Infective Endocarditis is condition where bacterial infection occurred on heart endocardium layer with hole on heart valve manifested if bacteria contact the heart valve.
- Myocarditis is an inflammation on heart myocardium layer that caused by pathogen (bacteria, virus or others) infection from outside the body. It may triggered a patient into shortness of breath and get fatigue easily or even death.

- Pericarditis is an inflammation on heart pericardium layer that caused by pathogen infection from outside the body. At many occasion may follow with Pericardial Effusion where the liquid of outer layer and inside layer pericardium got overload and could push heart or called Cardiac Tamponade.
- Kawasaki disease is a mysterious disease that cause coronary artery blood vessel to be enlarged and can lead into deat

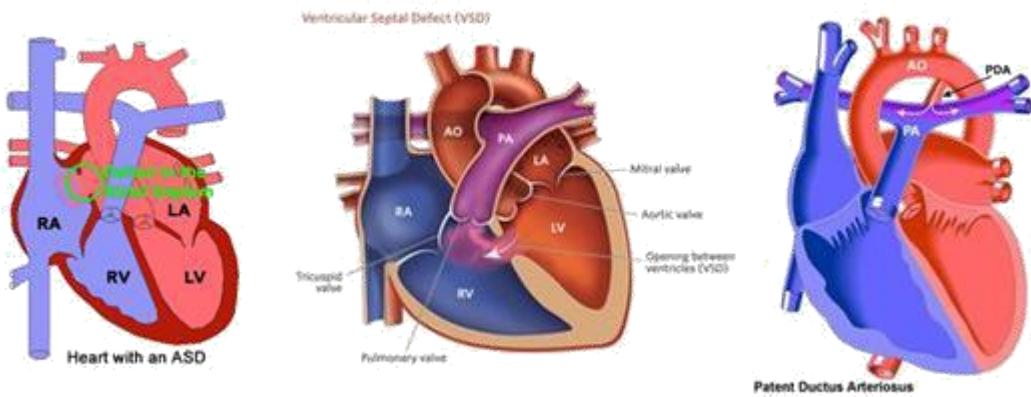


Figure 1: Heart scheme that shown three acyanotic congenital heart disease which is ASD, VSD and PDA

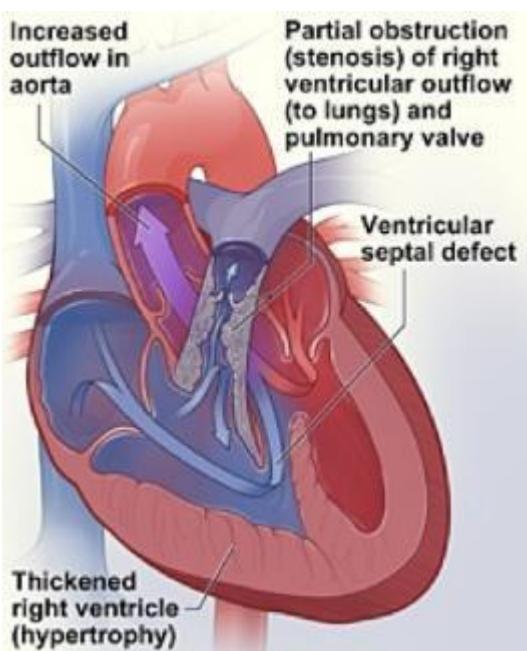


Figure 2: Heart scheme shown four defect on Tetralogy of Fallot

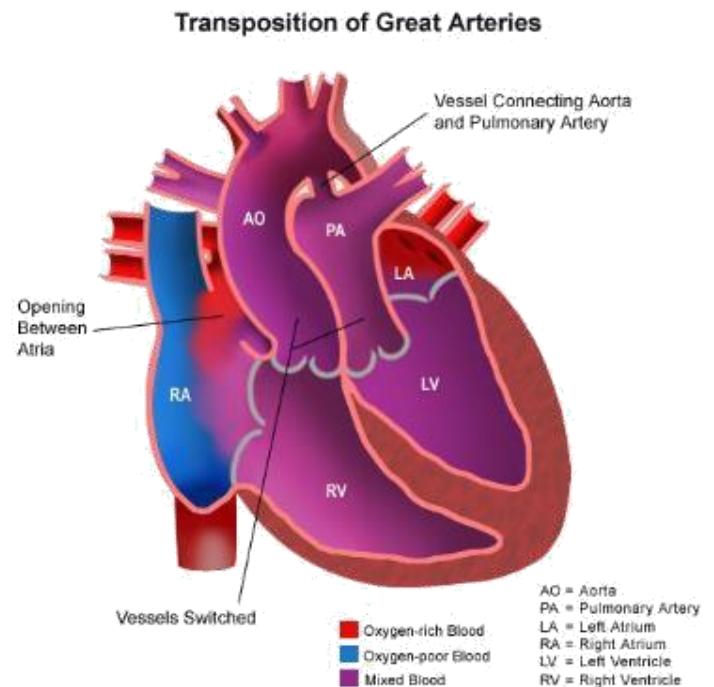


Figure 3: Heart scheme shown TGA

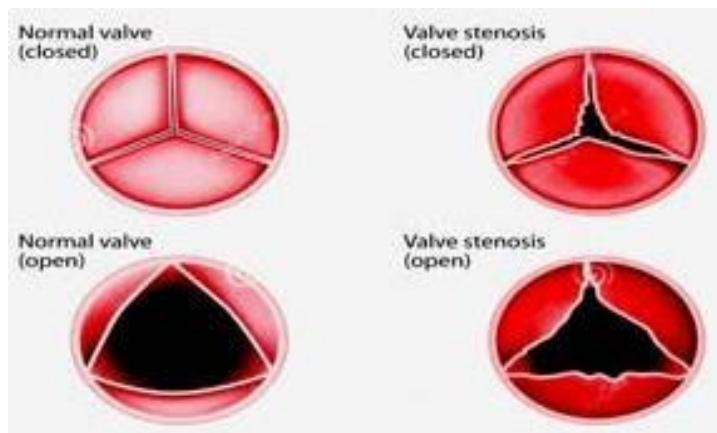


Figure 4: Heart valve scheme on Rheumatic Heart Disease

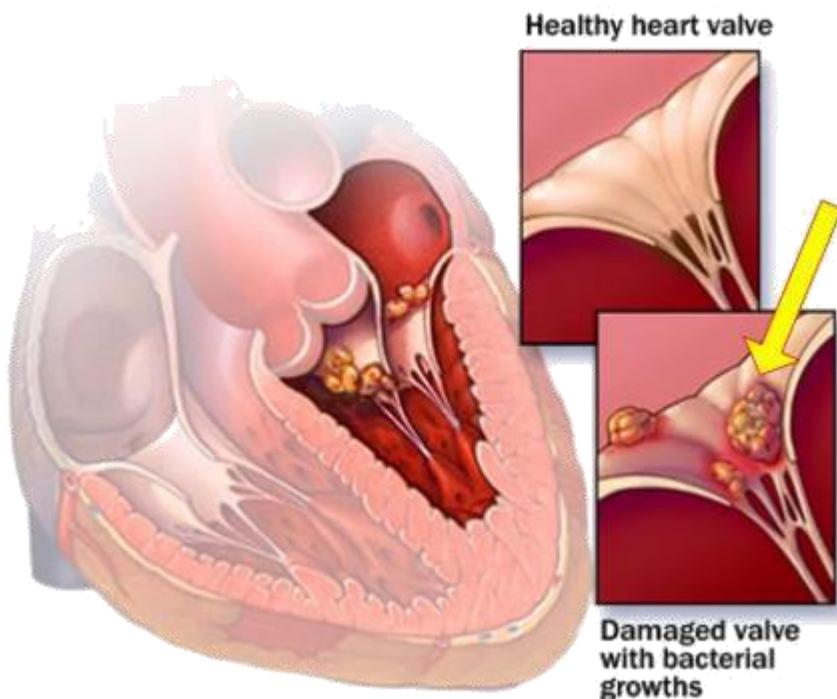


Figure 5: Heart scheme on Infective Endocarditis