



Truncus Arteriosus

Definition:

Normally, there are two major arteries coming out of the heart. The pulmonary artery is the artery that comes out of the right side of the heart carrying deoxygenated blood and the aorta is the artery that comes out of the left side of the heart carrying oxygenated blood.

In truncus arteriosus, these two arteries don't form properly and instead come out together over a hole between the two lower chambers of the heart. This artery will carry mixed blood to both lungs and body.

What causes it?

Cause is unknown but it is known to be commonly associated with a genetically inherited syndrome known as DiGeorge syndrome.

How does this affect the heart and child?

Due to the mixing between the oxygenated blood and the deoxygenated blood, the patient will be bluish (cyanosis) as the level of oxygenation in the body will be less than normal. Also, more blood will be pumped into the lungs due to the high pressures present in the left ventricle. This will eventually cause signs and symptoms of heart failure (increased breathing, difficulty in eating and difficulty in growing, increased heart rate). The condition will manifest itself from birth. Eventually the lung arteries are going to be damaged.

Management Options:

Surgery is the decision of choice for these patients. The hole between the two ventricles (VSD) is closed with a patch and the pulmonary arteries (branching from the main trunk) are disconnected and connected to a tube that is attached to the right ventricle (this tube serves as a tunnel to the pulmonary artery).

Will my child need further intervention?

Eventually, with time, the tube will be small in size as it will not grow with the patient and will have to be replaced from time to time as the child gets older. Also, if narrowing occurs, catheterization can be used to insert a balloon to expand the narrowed segment. This will all be decided by the pediatric cardiologist after the proper tests have been done.

What activities can your child do?

Usually, if the surgery is successful with no complications, the child will be able to participate in some sports, but nothing too intense.

Follow up in the future:

There will need to be a regular follow up with the pediatric cardiologist as your child will probably need to take medication after surgery. The evaluation will be done using a series of tests such as ECGs, echocardiograms and sometimes cardiac catheterization might even be necessary.

Children may need to receive antibiotics before any surgical or dental procedures to prevent infective endocarditis.