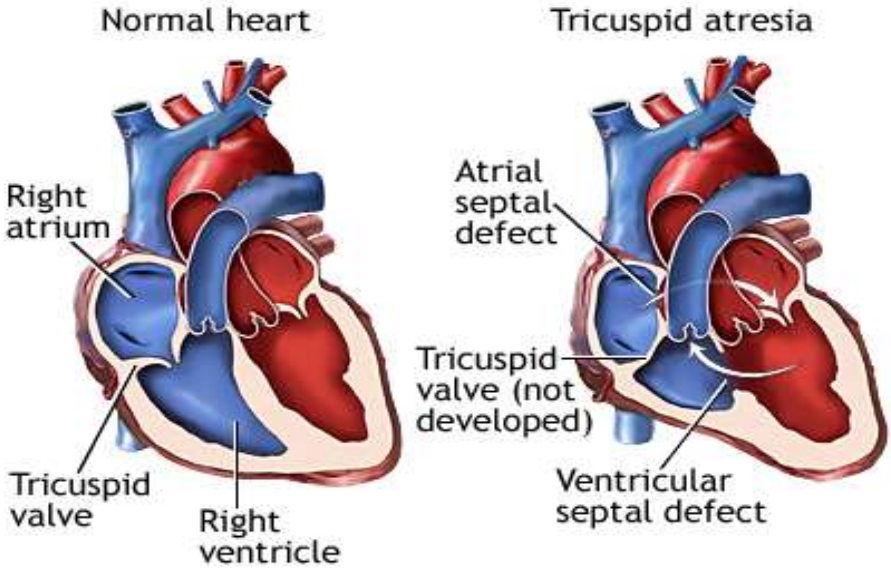


Tricuspid Atresia

Definition

Normally, there is a valve that separates the right upper chamber from the right lower chamber of the heart (right atria and right ventricle respectively). This valve is known as the tricuspid valve. In tricuspid atresia, this valve does not exist.

What causes it?

Cause is unknown but usually occurs with other heart defects, especially ASD and VSD (as in this case, they are life saving)

How does it affect the heart and child?

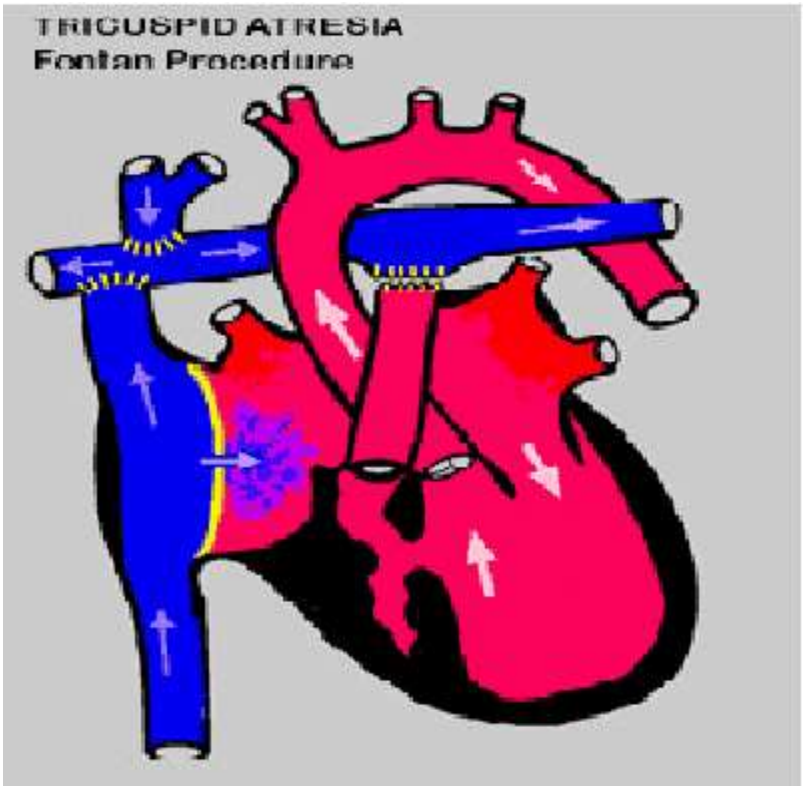
Due to the lack of a tricuspid valve, blood cannot go from the right atrium to the right ventricle. This means that the right ventricle will be small and underdeveloped. Due to the presence of an opening between the atria and/or ventricles, the child is able to survive. Deoxygenated blood will travel from right atrium to left atrium and mix with oxygenated blood. Then, the blood will travel to the left ventricle where most of it will be pumped to the rest of the body via the aorta. A small amount will pass through the hole between the ventricles (VSD) into the right ventricle where it'll be pumped to the lung via the pulmonary artery. Due to this mixing, the child will be bluish (cyanosed) and will tire easily.

Management Options

Due to the severity of cyanosis (and lack of oxygenation to the body), a surgical procedure known as a shunt operation will have to be done first. This will not cure the child, but will manage and improve the cyanosis and oxygenation. In other cases, if the VSD (hole between two ventricles) is too big a lot of blood will be going to the lungs and the patient will require another type of surgery instead called pulmonary artery

banding. Both these surgeries are not curative and just temporary treatment options until the child is ready for the actual surgeries that will make their heart almost function normally.

The surgeries are done in two stages, the first being called the Bidirectional Glenn Operation, and the second one being called the Fontan Operation. The idea behind the two surgeries is to connect the veins going to the right side of the heart to the pulmonary artery (to bypass the right side of the heart entirely). The Glenn is done after 3 months of age and the Fontan after 18 months.



What activities can your child do?

This will be dictated by the pediatric cardiologist, but usually, there will be some form of restriction to physical activity, as the heart will never be normal.

Follow up in the future:

Lifelong follow up with the pediatric cardiologist will be necessary as medication, catheterization or even further surgeries will need to be added or done according to the condition post operatively.

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