

What is Congestive Cardiomyopathy?

Congestive cardiomyopathy is a serious condition where the heart has become weakened for some reason and is not able to squeeze as well as it should. In an attempt to compensate for this weakness it will enlarge. The walls of the heart, by definition, are not thickened.

This can be caused by several reasons. Most often we don't know the reason and this is called idiopathic. These can sometimes run in families. It may show up in the first months of life or years later. Occasionally it can be caused by a viral infection. The most frequent are called Coxsackie and Echo virus. These are very common viruses and usually only cause colds and flu symptoms in children. We don't know why in some children the heart is affected. Many times the heart will recover after an infection. Sometimes medicine used to treat cancer may have a side effect of poisoning the heart and destroying heart muscle. This is usually avoided by careful monitoring of the heart while chemo-therapy (cancer treatment) is underway. Rarely congestive cardiomyopathy may be caused by structural abnormalities of the heart such as Coarctation of the aorta or Aortic stenosis. Sometimes this can be caused by an abnormal coronary artery (this is the artery that feeds the heart muscle itself). Specifically the left coronary artery can originate from the pulmonary artery. Now a day these conditions are usually recognized early enough so that the heart can be fixed before damage is done. Very rarely congestive cardiomyopathy can be caused by parasites. This is much more common in Central and South America (Chagas Disease).

Sometimes it is difficult to diagnose Congestive cardiomyopathy at first. The child may show signs of pneumonia, breathing fast, decreased activity, chest pain or irregular heartbeats. Sometimes they become sick very quickly and may die within a few days. The doctor will notice a relatively fast rate of breathing and heart rate. The heart sounds may not be as crisp as usual or there may be some extra sounds such as murmurs or gallops. The liver may be enlarged and the pulses may not be easily felt. The blood flow to the skin may be less than normal. A chest X-ray will always show a big heart. An EKG (test to measure the electrical activity of the heart) is almost always abnormal. Frequently they will have irregular heartbeats or premature beats. The best test is an echocardiogram, which visualizes the heart using sound waves. With this we can accurately measure the size of the heart as well as how strongly it beats, and if any of the valves are leaking. Sometimes we need to do a cardiac catheterization to better look at the coronary arteries (if they are not well seen by echocardiogram) and sometimes to do a biopsy of the heart muscle to see if there is something that can be medically treated.

The medical treatment for this condition is limited. We use medicines called Lasix and Digoxin to help the heart beat stronger and Captopril to decrease the work of the heart. There is now renewed interest in Beta Blocker medications such as Coreg, which have, been shown to actually increase the contractility of the heart and more importantly to improve the function of the patient. Sometimes we need to use I.V. medicines like Dopamine and Dobutamine to help the heart squeeze better and pump an adequate amount of blood to the body. Oxygen and rest are very useful. Seriously ill patients with difficulty breathing need to be intubated so that the work of breathing can be eliminated. Sometimes the only treatment is heart transplantation. This is a very serious condition. In children over two years old more than 60% will die. In Children less than 2 years about 66% will live.

If you have any questions please ask one of the doctors.