HYPERTROPHIC CARDIOMYOPATHY

Description

Hypertrophic cardiomyopathy is a disease of the heart that is related to changes in the proteins of the heart muscle. These changes o•ood to the body efficiently. The condition may result in abnormal heart rhythms, and persons with this disease often die suddenly during exercise.

Common Signs and Symptoms

- Chest pain
- Abnormal heart rhythms
- Syncope (sudden loss of consciousness)
- Palpitations (rapid heart rate, which is felt as a fluttering in chest)
- Sudden death (death without warning)
- Poor tolerance for exercise
- Dyspnea (increased work required for breathing)
- Swelling of feet and ankles

Causes

Abnormalities of the heart muscle cause it to thicken and stiffen. The mechanism for this process is not understood, but it is presumed to result from the heart muscle's inability to effectively pump blood out of the heart; the body then tries to make more muscle tissue to compensate for it. As the heart enlarges, the muscle may increase in size so much it actually prevents the heart from ejecting it to the body or to its own blood vessels. The lack of oxygen to the heart results in abnormal rhythms and injury to the remaining heart muscle and sudden death, fainting, and other symptoms.

Risk Increases With

- A strong family history of sudden death from unexplained causes
- Unexplained episodes of syncope (fainting)

Preventive Measures

- Medications to decrease the work of the heart, such as beta-blockers, may be administered.
- Heavy training and strenuous sports participation should be eliminated.
- Obtain genetic counseling regarding family and activity.

Expected Outcome

Athletes with this condition are counseled to stop all but the least strenuous sports in most cases. There is evidence that they can have a normal or near normal life span.

Possible Complications

Hypertrophic cardiomyopathy is the condition most closely associated with young athletes dying suddenly while playing. These athletes are also susceptible to abnormal heart rhythms and infections of the heart valves.

General Treatment Considerations

- Tests to confirm the diagnosis include cardiograms, echocardiograms, and cardiac catheterization. Electrophysiological studies, which allow physicians to carefully study the heart's response to rapid heart rates, are often performed. In rare cases a biopsy of the heart is performed.
- Athletes are generally counseled to stop strenuous training and high levels of competition. This may result in severe psychological stress, and counseling is often required.
- Medications to decrease the work of the heart are often recommended. Some of them can be poorly tolerated, but a medical regimen is usually the first step in treatment.
- Screening of family members and close relatives is usually offered, because this condition is inherited in about two thirds of cases.
- Family members and people who work closely with the patient should learn cardiopulmonary resuscitation (CPR) in case a cardiac arrest occurs.
- The athlete should be followed closely by a physician, and tests should be repeated at intervals to determine how the condition is progressing.
- To reduce obstruction, surgery is occasionally recommended.
- Use of a medical alert bracelet is recommended.
- Replacement of heart valves is occasionally necessary if they do not work well.

Medication

- Beta-blockers and calcium channel blockers are generally the first attempted medications. These drugs can reduce the work of the heart and reduce abnormal rhythms.
- Nitroglycerin is often avoided in patients with hypertrophic cardiomyopathy.

Activity

- Athletes are generally counseled to reduce activity to levels determined by the tests that assess the severity of the disease. Although some athletes have elected to continue play despite counseling, there is very little data to determine who is capable of continuing without risk of sudden death.
- Activity within safe guidelines is recommended. Athletes should not regard themselves as incapable of all activity.

Diet

- A low-salt diet is recommended if symptoms of congestive heart failure develop. Otherwise, no special diet is recommended.

Notify Our Office If

- You have an episode of fainting (syncope), especially if related to exercise
- A close relative is found to have the diagnosis of hypertrophic cardiomyopathy
- There is a change in your exercise tolerance
- You develop palpitations, shortness of breath, chest pain, or increased difficulty breathing
- Medications prescribed for this condition produce intolerable side effects

Notes: (Up to 4400 characters only)

Notes and suggestions