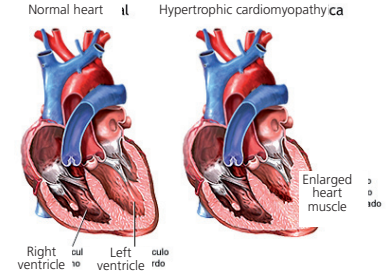
Hypertrophic Cardiomyopathy

Miocardiopatía hipertrófica

WHAT IS HYPERTROPHIC CARDIOMYOPATHY?

Hypertrophic cardiomyopathy (HCM) is caused by a genetic defect producing abnormal thickening or hypertrophy of the left ventricular muscle (Figure 1). About 1 out of 500 adults have this condition. It is an inherited disease, passed on from parents to children. It can affect both men and women of all ages, but not all the members of the family will develop the disease. Young people are more likely to develop severe forms of HCM.



WHAT ARE THE SYMPTOMS?

Patients with this condition may not have any symptoms for a long time.
Due to localized thickening (hypertrophy) the heart can restrict blood flow out of the ventricle, causing:

- Shortness of breath when exercising or sometimes even at rest.
- Chest pain caused or worsened by exercise.
- Fainting (syncope).
- Palpitations.
- Fatigue (lack of energy) and/or edema in the lower limbs.

HOW IS IT DIAGNOSED?

Physical examination can detect heart murmur, disorders in heart rhythm (arrhythmias), or the symptoms listed above.
Echocardiography (ultrasound) is the main test to confirm the diagnosis and to monitor this condition in a simple, repeatable, and accessible way.
Sometimes, other diagnostic methods are needed to complete the information and determine the severity and prognosis of the condition.

WHAT ARE THE COMPLICATIONS OF HYPERTROPHIC CARDIOMYOPATHY?

Complications depend on the severity of the disease, and may include heart failure, stroke, arrhythmias, and heart block.
Risk of sudden death and severe arrhythmias can occur in a few patients with HCM.

HOW IS HYPERTROPHIC CARDIOMYOPATHY TREATED?

Medical treatment (to reduce symptoms): beta-blockers, calcium-channel blockers, antiarrhythmic drugs (to control arrhythmias), and anticoagulants to prevent blood clots when HCM is associated with atrial fibrillation.
Devices: permanent pacemaker implantation in case of heart block, or implantable cardioverter defibrillator in case of severe arrhythmias and risk of sudden death.
Invasive devices: ***Septal ablation*** with intracoronary alcohol (ethanol) injection by catheterization, or ***surgical septal myectomy*** to remove a portion of the thickened muscle.
Both techniques are used to decrease blood flow obstruction in the left ventricle when medical treatment fails.
Exercise: avoid strenuous exercises and control competitive sports (in our country, HCM is the leading cause of sudden death in athletes or sportsmen or women under 35 years of age).
Ask your doctor about the use of medicines that can make your HCM worse.

WHAT IS THE PROGNOSIS OF HYPERTROPHIC CARDIOMYOPATHY?

Many people with HCM may have no symptoms and lead a normal life.
In certain cases (young people), the condition progresses rapidly and a more complex treatment is necessary.
Early diagnosis and identification of patients at higher risk for severe complications are very important.

Author: Rubén H. Álvarez, M.D.[MTSAC]
Chief of the Department of Cardiology at Clínica Güemes. Luján, Pcia. de Bs. As.

Editor: Julio Manuel Lewkowicz, MD[MTSAC]
Sanatorio Güemes, Buenos Aires

REFERENCES

- Consenso de Miocardiopatía Hipertrófica. Rev Argent Cardiol 2009;77:1-28.
- 2011 ACCF/AHA Guideline for the Diagnosis and Treatment of Hypertrophic Cardiomyopathy. A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. Circulation 2011;124:e783-e831.

INFORMATION ON THE WEB

- National Library of Medicine (www.nlm.nih.gov/medlineplus/ency/article)
- The Cardiomyopathy Association (www.cardiomyopathy.org/index)
- Fundación Española del Corazón.com.es/pacientes/ miocardiopatía hipertrófica