CARDIOVASCULAR DISEASES ABOUT A CLINICAL CASE, IMPORTANCE OF EDUCATION FOR ITS PREVENTION

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Abstract
Cardiovascular disease is the leading cause of death worldwide. These diseases affect the heart and blood vessels and can lead to serious complications, such as a heart attack or stroke. However, most cardiovascular diseases are preventable. Education and prevention are essential to reduce the risk of developing cardiovascular diseases and improve people’s quality of life. The clinical case refers to a patient who has several risk factors for cardiovascular diseases, such as hypertension, diabetes, hypothyroidism and overweight, who suffered an unstable angina and atheromatous coronary heart disease, so she was sent urgently to the third level for coronary angiography and cardiac stent placement. The patient improved markedly and began a rehabilitation process that included lifestyle changes and control of risk factors. The patient’s experience highlights the importance of prevention and control of risk factors for cardiovascular disease, as well as the need for regular medical attention to detect any problems early.

Key Words: cardiovascular diseases, risk factors, unstable angina, coronary angiography.
INTRODUCTION

Cardiovascular disease is the leading cause of death worldwide. These diseases affect the heart and blood vessels and can lead to serious complications, such as a heart attack or stroke. However, most cardiovascular diseases are preventable. Education and prevention are key to reducing the risk of developing cardiovascular disease and improving people’s quality of life (1).

Education about cardiovascular disease is essential for people to understand the risk factors associated with these diseases. Risk factors include high blood pressure, high cholesterol, diabetes, smoking, obesity, sedentary lifestyle and unhealthy diet. People should know how to identify these risk factors and how to control them to reduce the risk of developing cardiovascular disease (2).

Education on cardiovascular disease should begin in primary school and continue in secondary and higher education. Educational programs should include information about the different types of cardiovascular diseases, how to detect them, how to prevent them, and how to treat them. Students should also learn about the importance of maintaining a healthy lifestyle to reduce the risk of developing cardiovascular disease.

Prevention of cardiovascular disease should include lifestyle changes and medical treatments. Lifestyle changes include a healthy diet, regular exercise, weight control, and quitting smoking. People should eat a diet rich in fruits, vegetables, whole grains, lean proteins, and healthy fats. They should also exercise regularly, at least 30 minutes a day, five days a week. People should monitor their weight and maintain a healthy body mass index (BMI). In addition, quitting smoking is essential to reduce the risk of cardiovascular disease (3).

In addition to lifestyle changes, medical treatments are also essential to prevent cardiovascular disease. These treatments include medications to control blood pressure, cholesterol, and diabetes. Patients may also need medical procedures, such as angioplasty or bypass surgery, to treat cardiovascular disease (4).

In conclusion, education and prevention are essential to reduce the risk of developing cardiovascular diseases and improve people’s quality of life. Education on cardiovascular disease should begin in primary school and continue in secondary and higher education. People should know the risk factors associated with cardiovascular disease and how to manage them to reduce the risk of developing these diseases. In addition, lifestyle changes and medical treatments are essential to prevent cardiovascular disease. With proper education and prevention, we can reduce the incidence of cardiovascular disease and improve people’s health and well-being.
TIMELINE

The patient was a 73-year-old woman with a history of hypertension (Losartan 100 mg daily, Chlorthalidone 50 mg daily, Carvedilol 25 mg daily) Diabetes Mellitus (Metformin 850 mg every 12 hours, Insulin glargine 30 IU SC after lunch), Hypothyroidism (Levothyroxine 75 mcg daily), overweight, sedentary lifestyle. She went to the Cardiology consultation because she had a precordial pain angina type for 1 week associated with shortness of breath and feeling of death described by the patient as squeezing her chest, also refers to sweating in the morning when performing her activities, went to several doctors receiving multiple treatments without improvement, the symptoms are exacerbated so she goes to cardiology where they perform relevant tests and confirms diagnosis of Unstable Angina and atheromatous coronary disease. So it was sent urgently to the third level for coronary angiography and cardiac stent placement, the patient improves ostensibly.

PATIENT INFORMATION

The 73-year-old patient, married, Catholic, born and resident in Riobamba, education (secondary). With personal pathological history Hypertension (Losartan 100 mg daily, Clortalidone 50 mg daily, Carvedilol 25 mg daily) Diabetes Mellitus (Metformin 850 mg every 12 hours, Insulin glargine 30 IU SC after lunch), Hypothyroidism (Levothyroxine 75 mcg daily), overweight, sedentary lifestyle. Family pathological history: diabetic father, hypertensive, obesity, AMI, diabetic mother, hypertensive, hypothyroid, overweight. You are not allergic to any known medicines or foods.

1. PHYSICAL EXAM

Blood pressure: 140/74 mmHg – Heart rate: 69 per minute – Respiratory rate: 19 per minute - WEIGHT: 76 Kg - Height: 1.51 cm. BMI:

Cardiovascular Exam:

Conscious, oriented, lucid patient.

Thorax: symmetrical with preserved expandability,

Lungs: preserved vesicular murmur, no superadded airborne noises.

Heart:

Inspection: tip shock in 5th intercostal space left present

Palpation: normal tip shock, not frémito no rubbing

Percusión: normal (cardiac matidity)
Auscultation:
Aortic focus (2nd EIC): second right parasternal space murmur Grade I/VI with reinforcement.
Pulmonary Focus (2DO EIC): Second left-handed parasternal space.
Mitral focus (5TH EIC): Grade I/VI apex murmur
Tricuspid focus not murmur.

2. DIAGNOSTIC EVALUATION: COMPLEMENTARY TESTS:
Biometría hemática normal, creatinine 0.79mg/dl, triglicéridos 205 mg/dl, cholesterol 109 mg/dl, Na: 143 mg/dl K: 4.1 mg/dl.
CORONARY ARTERY STUDY BY MULTIDETECTOR COMPUTED TOMOGRAPHY (CORONARYOGRAPHY): Common trunk: presence of calcified atheromatous plaques that cause a 24% stenosis; Anterior descending: presence of calcified atheromatous plaques causing 69% stenosis; Circumflex artery: presence of calcified atheromatous plaques causing stenosis 49%; Right coronary artery: presence of calcified atheromatous plaques that cause a stenosis 24%. CALCIUM SCORE: MORE THAN 600.
EKG: Incomplete left bundle branch block of HH, high lateral ventricular repolarization disorder. Image suggestive of mitral P, LV hypertrophy.
ECHOCARDIOGRAM: LVEF 59%, TAPSE 21.6, PSAP 24.2 MMHG, NO DILATED CAVITIES, COMPETENT VALVE APPARATUS.
HOLTER EKG 24 HOURS: SINUS RHYTHM, HR MAX: 90 BPM, HR MIN: 45 LPM, no pauses greater than 2.5 sec, isolated monomorphic ventricular contractions 75 and supraventricular contractions 110 bpm, no registration of symptoms during study or electrocardiographic alterations.

3. THERAPEUTIC INTERVENTION
Treatment consisted of admission to the patient's emergency room for hospitalization, stabilization and subsequent transfer to the third level for cardiac catheterization with coronary stenting.
- Income
- Absolute rest
- Placement of O2 by whisker
- ASA 100 mg daily
- Clopidogrel 75 mg
- Diapresan D 160/12.5 8 am
- Clortalidona 12.5 mg 5pm
- Rusovastatina 20 mg 9 pm
- Isosorvide mononitrate 20 mg/2 tablets every 12 hours
- Morphine: 1 ampoule diluted in syringe 9 cc of saline, pass 1cc maximum 3 cc per day.
- Metoclopramide 1 ampoule before morphine
- EKG every 6 hours
- Troponins every 8 hours
- Transfer to third level for cardiac catheterization.

4. MONITORING AND THERAPEUTIC RESPONSE

After 72 hours of cardiac catheterization and placement of cardiac stents, the patient evolved favorably, without chest pain and in better spirits, it was recommended that she should change her lifestyle and improve her eating habits perform gradual physical exercise of cardiac rehabilitation and join her normal activities, go to her quarterly checkups in cardiology,

DISCUSSION

The clinical case we present is that of a 73-year-old patient with multiple cardiovascular risk factors, including hypertension, type 2 diabetes, overweight and a history of hypothyroidism. The patient presented with significant chest pain and dyspnoea on moderate exertion, suggesting the presence of underlying cardiovascular disease. After being evaluated by a cardiologist, a coronary angiography was performed that showed significant obstructions in several arteries. The patient underwent coronary angiography with stenting and is currently under medical follow-up to control his risk factors and prevent future cardiovascular events (6).

Cardiovascular disease is one of the leading causes of death worldwide, and its incidence has been linked to multiple risk factors, including high blood pressure, diabetes, overweight and smoking. These factors increase the risk of atherosclerosis, which is the process of fatty plaques building up in the arteries, which can lead to blockage and dysfunction of blood vessels. Atherosclerosis can also lead to acute myocardial infarctions, strokes, and other cardiovascular complications (7).

In this case, the patient had several of these risk factors, which significantly increased his likelihood of developing cardiovascular disease. High blood pressure, for example, can damage artery walls and increase the risk of atherosclerosis. Diabetes, on the other hand, can cause endothelial dysfunction and contribute to the formation of atheromatous plaques. In addition, being overweight increases the burden that the cardiovascular system has to bear, which can lead to a higher incidence of cardiovascular events (8).
Management of cardiovascular disease in patients with multiple risk factors focuses on prevention and control of these factors. Early identification of high blood pressure, diabetes and overweight is critical to preventing atherosclerosis and other cardiovascular complications. In addition, treatment of these risk factors can significantly reduce the likelihood of future cardiovascular events. In the case of our patient, coronary artery bypass surgery was necessary due to the presence of significant obstructions in his coronary arteries, but his subsequent medical follow-up will include rigorous control of his risk factors to prevent future cardiovascular events (9-10).

In conclusion, cardiovascular disease is a serious pathology that is associated with multiple risk factors, such as high blood pressure, diabetes, overweight and smoking. Early identification and control of these factors are critical to preventing atherosclerosis and other cardiovascular complications. In the case of our patient, coronary artery bypass surgery was necessary due to the presence of significant obstructions in his coronary arteries, but his medical follow-up

PATIENT PERSPECTIVE

The patient has experienced firsthand the risks associated with cardiovascular disease. His clinical case is related to multiple risk factors, including high blood pressure, type 2 diabetes, hypothyroidism and overweight. As a result of these factors, he suffered atherosclerotic coronary artery disease and it was necessary to perform a coronary angiography that revealed significant obstructions in several arteries.

It was a very difficult situation for the patient and the family. Fortunately, I was evaluated by a cardiologist who explained to me in detail the procedures necessary to treat her disease. Although she was nervous, she was reassured to know that they were doing everything they could to help her.

After coronary angiography, the cardiologist decided to place a stent to improve blood flow in your coronary arteries. It was a surgical procedure that was not as complicated as I thought. They explained everything they were going to do and the recovery process.

After coronary angiography, they began a rehabilitation process that included changing their lifestyle and controlling their risk factors. You had to improve your diet, exercise, and take medications to control hypertension and diabetes. It was a major change in his life, but he knew it was necessary to prevent future health problems.

Now you feel much better and healthier. Although you still have to control your risk factors, you know that you are in good hands and that your health is constantly being monitored by your medical team.
The most important thing he learned from this experience is the importance of prevention and control of risk factors for cardiovascular disease.

INFORMED CONSENT

We have the informed consent of the patient to publish her clinical case.

Bibliography


