



Arrhythmia: Causes, Symptoms, Diagnosis, and Treatment Methods

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Description

Arrhythmia is a medical condition that refers to an abnormality in the heartbeat rhythm. The heart is a muscular organ that circulates blood throughout the body. The heartbeat is regulated by the electrical nerve signals that control the constriction of the heart. In normal circumstances, the heart beats at a controlled rate, which is known as a normal sinus rhythm. However, in cases of arrhythmia, the heartbeat rhythm can become irregular or abnormal, which can lead to various health complications.

Causes of arrhythmia

Arrhythmia can be caused by various factors, including heart disease, high blood pressure, diabetes, smoking, excessive alcohol consumption, drug abuse, stress, and genetics. Heart disease is one of the most common causes of arrhythmia. Heart disease refers to a wide range of conditions that affect the heart's structure and function, such as coronary artery disease, heart valve disease, and congenital heart defects. These conditions can interfere with regular electrical impulses that regulate the heartbeat and cause arrhythmia.

Symptoms of arrhythmia

Arrhythmia symptoms can vary depending on the type and severity of the condition. Some people with arrhythmia may not exhibit any symptoms, while others may experience mild to severe symptoms. Common symptoms of arrhythmia include: Irregular or rapid heartbeat, fluttering in the chest, shortness of breath, chest pain and swelling, dizziness or lightheadedness, fatigue or weakness, and near-fainting or irregular heartbeat.

Diagnosis of arrhythmia

To diagnose arrhythmia, a doctor may perform various tests, including:

Electrocardiogram (ECG): This test measures the electrical activity of the heart and can help to detect abnormal rhythms.

Holter monitor: It is a portable device that records the electrical activity of the heart for 24 to 48 hours.

Event recorder: This is a small device that can be required to wear for the several months and records the electrical activity of the heart when the individual experiences symptoms.

Echocardiogram: This test uses sound waves to create images of the heart and can help to identify structural abnormalities.

Stress test: This test involves exercising on a either a machine or a strength training while the heart's electrical activity is monitored.

Treatment of arrhythmia

Arrhythmia treatment is determined by the type and severity of the condition. In some cases, arrhythmia may not require any treatment. However, in other cases, treatment may be necessary to prevent complications. Treatment options for arrhythmia include:

Medications: Medications can help to regulate the heartbeat and prevent the recurrence of arrhythmia. Common medications for arrhythmia include beta-blockers, calcium channel blockers, and anti-arrhythmic drugs.

Cardio version: This is a procedure that uses electrical shocks to restore the heart's normal rhythm.

Catheter ablation: It is a procedure that involves by using catheters to deliver energy to the heart tissue to destroy abnormal electrical pathways that cause arrhythmia.

Pacemaker: A heart transplant is a small device that is implanted under the skin and delivers electrical impulses to regulate the heartbeat.

Implantable Cardioverter-Defibrillator (ICD): An ICD is a small device that is implanted under the skin and can detect and treat potentially fatal arrhythmias.

Prevention of arrhythmia

There are various lifestyle changes that can help to prevent arrhythmia, including: Eating a healthy diet that is low in saturated and trans fatty acids, salt, and sugar, maintaining a healthy weight, exercising regularly, smoking inhibition, reducing alcohol consumption, stress administration.

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