

Editorial on Causes, Symptoms and Diagnosis of Atrial Fibrillation

Neha Halnure*

Department of Biotechnology, Osmania University, Hyderabad, Telangana, India

Editorial

Atrial fibrillation is an abnormal and irregular heart rhythm in which electrical signals create confusion throughout the upper atrium (ventricle) of the heart. Many people with this disease have no signs or symptoms (asymptomatic).

Causes of atrial fibrillation

Atrial fibrillation causes due to an abnormal heart rhythm. During this rhythm, the discharge is not only generated by the SA node. Instead, the discharge comes from other parts of the atrium. These abnormal shocks are rapid and irregular and can exceed 350 shocks per minute. Rapid and irregular discharge causes ineffective contraction of the atrium. In fact, atrial fibrillation does not beat as a whole. This reduces the ability of the atria to pump blood to the ventricles.

Rapid, irregular discharge from the atrium then enters the ventricle through the AV node, causing the ventricle to contract irregularly and (usually) rapidly. Contractions of the ventricles can average 150 times per minute, which is much lower than the rate of contraction of the atria. The ventricle cannot contract at a rate of 350 beats/minute. Even if it contracts at an average rate of 150 beats/minute, the ventricles may not have enough time to fill with blood to the fullest before the next contraction. Especially the atria do not contract down normally. Atrial fibrillation reduces the amount of blood pumped through the ventricles because the ventricles contract rapidly and there is no normal atrial contraction.

Symptoms of atrial fibrillation

Many patients with this disease have no symptoms (asymptomatic) and do not know the abnormal rhythm. When symptoms appear, the most common

is palpitations, which is an uncomfortable awareness of a rapid and irregular heartbeat. Other symptoms of this condition are caused by a decrease in the transport of blood to the body. These symptoms include: Dizziness, fainting, weakness, fatigue shortness of breath angina (chest pain due to reduced blood flow to the heart muscle).

Diagnosis of atrial fibrillation

Atrial fibrillation can be chronic and continuous, or it can be short-lived and intermittent (paroxysmal). The rate returns to normal between episodes. In persistent chronic atrial fibrillation, the atria constantly tremble. Chronic and persistent atrial fibrillation is not difficult to diagnose. The doctor may use the stethoscope to listen for a fast and irregular heartbeat. By measuring the patient's pulse and the doctor's diagnosis, an abnormal heartbeat can also be felt.

Test to diagnose atrial fibrillation

Electrocardiogram- An Electrocardiogram (EKG or ECG) is a brief record of the discharge from the heart. If AF occurs during the ECG, it is easy to identify the irregular tracking of the AF on the ECG.

Echocardiography: Echocardiography uses ultrasound to produce images of the chambers and valves and around the heart (pericardium). Echocardiography can be used to detect conditions that can accompany AF, such as mitral valve prolapse, rheumatic valve disease, and pericarditis (inflammation of the "sac" that surrounds the heart). Echocardiography can also be used to measure the size of the atrium. The size of the atrium is an important factor in determining the patient's response to disease treatment. For example, patients with enlarged atria are more difficult to achieve and maintain a normal rhythm.

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*Address for Correspondence: Neha Halnure, Department of Biotechnology, Osmania University, Hyderabad, Telangana, India; Tel: + 906324190700; E-mail: nehahalnure23@gmail.com

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