Effects of the Coranary Artery Disease and its Functions

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DESCRIPTION

Coronary artery disease, also known as ischemic heart disease, myocardial ischemia, or simply heart disease, is characterized by a decrease in blood flow to the heart muscle caused by the build-up of atherosclerotic plaque in the heart's arteries [1]. It is the most prevalent cardiovascular disease. There are four types of angina: stable angina, unstable angina, myocardial infarction, and sudden cardiac death. Chest pain or discomfort is a common symptom that can spread to the shoulder, arm, back, neck, or jaw. It may occasionally feel like heartburn. Symptoms typically occur during exercise or emotional stress, last only a few minutes, and improve with rest. Shortness of breath is also possible, and no symptoms are always present. A heart attack is frequently the first symptom.

Heart failure or an irregular heartbeat is two other complications. High blood pressure, smoking, diabetes, lack of exercise, obesity, high blood cholesterol, a poor diet, depression, and excessive alcohol consumption are all risk factors. A variety of tests, including electrocardiograms, cardiac stress testing, coronary computed tomographic angiography, and coronary angiograms, may aid in the diagnosis. Eating a healthy diet, exercising regularly, maintaining a healthy weight, and not smoking are all ways to reduce your risk of coronary artery disease [2].

Diabetes, high cholesterol, and high blood pressure medications are sometimes used. There is little evidence to support screening people who are at low risk and do not exhibit symptoms. Treatment entails the same steps as prevention. Antiplatelet agents, beta blockers, or nitroglycerin may be prescribed in addition. In severe disease, procedures such as percutaneous coronary intervention or coronary artery bypass surgery may be used. It is unclear whether percutaneous coronary intervention or coronary artery bypass grafting, in addition to other treatments, improves life expectancy or reduces the risk of a heart attack in people with stable CAD.

Signs and symptoms

The most common symptom is chest pain or discomfort that occurs on a regular basis during activity, after eating, or at other predictable times; this phenomenon is known as stable angina and is associated with narrowing of the coronary arteries. Chest tightness, heaviness, pressure, numbness, fullness, or squeezing is also symptoms of angina. Unstable angina is defined as angina that changes in intensity, character, or frequency [3].

Unstable angina can occur before a heart attack. Around 30% of adults who visit the emergency room with an unknown cause of pain have pain caused by coronary artery disease. Angina, shortness of breath, sweating, nausea or vomiting, and light-headedness are all symptoms of a heart attack, also known as a myocardial infarction, and require immediate emergency medical attention [4]. The narrowing of coronary arteries in advanced disease reduces the supply of oxygen-rich blood flowing to the heart, which becomes more pronounced during strenuous activities that cause the heart to beat faster. Some people have severe symptoms, while others have no symptoms at all [5].

CONCLUSION

Risk factors: A number of risk factors for coronary artery disease have been identified. High blood pressure, smoking, diabetes, lack of exercise, obesity, high blood cholesterol, poor diet, depression, family history, psychological stress, and excessive alcohol are some of these. Genetics are responsible for roughly half of all cases. Smoking and obesity are linked to approximately 36% and 20% of cases, respectively. Even smoking one cigarette per day nearly doubles the risk of CAD. 7%–12% of cases have been linked to a lack of exercise. Agent Orange exposure may pose an increased risk. Rheumatologic diseases such as rheumatoid arthritis, systemic lupus erythematosus, psoriasis, and psoriatic arthritis are also independent risk factors. Job stress appears to play a minor role in approximately 3% of cases. In one study, women who were not stressed by their jobs saw an increase in the diameter of their blood vessels, which led to a slower progression of atherosclerosis. On the other hand, women who experienced high levels of work-related stress had a decrease in blood vessel diameter and significantly increased disease progression. A time urgency, competitiveness, hostility, and impatience personality pattern has been linked to an increased risk of coronary disease.

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