

Arterial Disease and its Complications: Causes, Symptoms, Diagnosis and Treatment

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DESCRIPTION

Arterial disease, also known as arterial insufficiency or Peripheral Artery Disease (PAD) is a condition in which the arteries that supply blood to the limbs become narrowed or blocked. This can lead to a variety of symptoms, including pain, cramping, and numbness in the legs, as well as non-healing ulcers and gangrene. Arterial disease is a common condition that affects millions of people worldwide, and can have serious consequences if left untreated.

Causes

The most common cause of arterial disease is atherosclerosis, a condition in which fatty deposits, called plaque, build up on the inner walls of the arteries. As plaque accumulates, it can narrow the opening of the artery and restricts the blood flow. Plaque build-up is often caused by the result of an unhealthy diet, lack of exercise, smoking, and other factors that contribute to the build-up of cholesterol and other substances in the blood.

Other causes of arterial disease include inflammation of the blood vessels, which can occur as a result of autoimmune disorders or infections, and blood clots, which can form as a result of injury or other factors. Certain medical conditions, such as diabetes, high blood pressure, and kidney disease, can also increase the risk of developing arterial disease.

Symptoms

The symptoms of arterial disease can vary depending on the severity and location of the blockage. In some cases, people with mild arterial disease may not experience any symptoms at all. However, as the disease progresses, symptoms may become more noticeable and may include,

- Pain or cramping in the legs, especially during physical activity or walking
- Numbness or weakness in the legs
- Non-healing ulcers or sores on the legs or feet
- Coldness or a bluish discoloration of the skin in the affected area
- Erectile dysfunction in men

Diagnosis

Diagnosing arterial disease typically involves a combination of physical examination and diagnostic testing. During a physical exam, a healthcare provider may check for the presence of weak pulses in the affected area, as well as other signs of poor circulation, such as cool skin and slow healing of wounds. They may also perform a simple test called the Ankle-Brachial Index (ABI), which measures the blood pressure in the arms and legs to determine the presence and severity of arterial disease.

Other diagnostic tests that may be used to diagnose arterial disease are,

Doppler ultrasound: This non-invasive test uses sound waves to create images of the blood flow in the arteries and can help identify areas of blockage.

Angiography: This is an invasive procedure that involves injecting a contrast dye into the bloodstream and using X-ray imaging to visualize the arteries and identify areas of blockage.

Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) angiography: These tests use advanced imaging techniques to create detailed images of the blood vessels and can help identify areas of blockage or narrowing.

Treatment

The treatment for arterial disease depends on the severity of the condition and the location of the blockage. Mild cases of arterial disease may be treated with lifestyle modifications, such as quitting smoking, improving diet and exercise habits, and taking steps to manage underlying medical conditions, such as diabetes or high blood pressure. In more severe cases, treatment may involve medications to help improve blood flow and prevent blood clots, such as antiplatelet drugs, anticoagulants, or medications that help relax the blood vessels.

CONCLUSION

Some people may also benefit from procedures to remove the blockage or bypass the affected area, such as angioplasty or stenting, which involve inserting a small balloon or wire mesh

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tube into the artery to widen the opening and improve blood flow. In some cases, more invasive procedures may be necessary, such as surgical bypass or amputation of the affected limb.