Peripheral Arterial Disease

Peripheral Arterial disease (PAD) it's a form of atherosclerotic vascular disease, which affects predominantly the arteries in the lower extremities. PAD occurs when fatty deposits collect in the arteries, supplying the legs and reduce the blood flow to the lower extremities. It is often a surrogate for coronary artery disease and cerebrovascular disease .

In other words, people with peripheral arterial disease often have coronary artery disease and/ or Cerebrovascular disease. It is estimated that one in 10 people over the age of 55 have lower extremity PAD. The same factors that cause plaque buildup in the coronary arteries also result in plaque deposits in the lower extremity arteries.

This includes advanced age, smoking, high cholesterol, high blood pressure, diabetes, and sedentary lifestyle.

SYMPTOMS OF PAD The classical pain of PAD is called claudication (from Latin word meaning " to limp"). The pain usually occurs in the calf muscles, but also strike the thigh, hip or buttocks. This occurs while walking and goes away with rest.

Sometimes people don't notice the discomfort until they walk a mile into the walk, but some patients experienced the pain even before they reach their mailbox Some other changes which people will notice with PAD include coldness or discoloration in one or both feet, slow healing of foot sores or slow growth of leg hair or toenail.

All of these are signs of poor circulation to the legs and may signal more serious condition called critical, limb-threatening ischemia (CLTI), which, if untreated, may lead to amputation.

CLTI requires immediate treatment with artery opening procedure to restore blood flow. (angioplasty and stenting or bypass surgery to the legs.) Although smoking is the biggest culprit to cause PAD, diabetes is also worrisome. Diabetes tends to weaken and damage the blood vessels. If not well controlled, diabetes may lead to peripheral neuropathy which cause numbness in the feet.

As a result, pain from the PAD may go unrecognized.

DIAGNOSIS OF PAD To test for PAD, doctors do a test called ANKLE-BRACHIAL INDEX, which compares the blood pressure in your arm to the blood pressure in your ankle. If your arteries are clear, the two readings should be fairly similar. Lower pressure in the ankle suggest PAD. Doctors sometimes also use an ultrasound or a CT angiogram for more precise diagnosis.

PREVENTING PAD The same lifestyle advice for preventing heart attack also applies for PAD.: quit smoking, follow a healthy diet and get regular exercise. For people with PAD, walking is probably the best way to slow the progression of the disease and reduce its complications. This might sound counterintuitive because our natural tendency is to avoid pain by limiting walking.

The temporary discomfort pays off over the long run. Walking promotes blood flow in the smaller arteries of your legs and create new channels (called collaterals) that help to move blood around the blocked areas and this may eventually helps to decrease the pain.

This is something like a highway closure when there are multiple detours to move the traffic on smaller roads around the obstruction. Overtime, the traffic flow will be the same as if the original highway was reopened. Ideally people should walk as long as they can, until they feel leg pain and then rest until the pain subsides and then continue to walk.

Overtime, you will be able to walk farther and farther before the pain sets in. This process improves the release of nitric oxide from the leg arteries, which relaxes blood vessels to deliver more blood and helps the muscles use oxygen efficiently.

Supervised exercise therapy, done on a treadmill, or in any place that allows for continuous walking, overseen by an exercise therapist or nurse has proven benefits for people with PAD. Unless you are very disciplined, leg pain makes it difficult to override that temptation to quit walking. You may need to be gently pushed to walk far enough to make the exercise beneficial

DRUGS FOR PAD PAD and CAD are both forms of atherosclerotic cardiovascular disease and respond to the same medical therapy. Studies have shown that only 30% of the people with PAD take the recommended medication's for slowing the progression of atherosclerosis and reducing their risk.

People diagnosed with PAD should immediately start taking a statin and anti-platelet drugs like Aspirin or Plavix. They should stop smoking and take control of their blood sugar, blood pressure, cholesterol, and weight.

If your PAD is mild at the time it is diagnosed, and you get these risk factors under control, there is a good chance you can prevent the disease progression A medication called CILOSTAZOL may help people with PAD to walk longer distances before needing to stop due to pain

SURGICAL OPTION Stenting is another option. However, stenting is not as effective as supervised walking therapy in relieving leg pain caused by clarification. Stenting or surgery, however, can be the go-to treatment in an emergency. If patient's limb is threatened by lack of blood flow, or at risk of getting gangrene or needing an amputation, stenting or surgery may save his leg.

Similarly, if leg pain becomes so severe that it impairs one's lifestyle or ability to work, then surgery or stenting may be recommended. The ability to stent sometimes depends on the size and location of the blockage. Some peripheral arteries are so small to stent or the blocked area is too long to place a stent.

The popliteal artery which is behind the knee, continually bends and flexes, which may cause a stent to break.

In summary, many people with PAD often ignore their symptoms. Since many people with this disease have coronary disease or cerebrovascular disease also , it is important to pay attention to PAD symptoms. If someone has symptoms suggesting PAD, it is better to have ANKLE-BRACHIAL INDEX TEST done to diagnosed the condition. This is a very simple test and it's non-invasive.

Keshava Aithal

Dr Keshava Aithal

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