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EDITOR'S CORNER

Screening for Peripheral Arterial Disease

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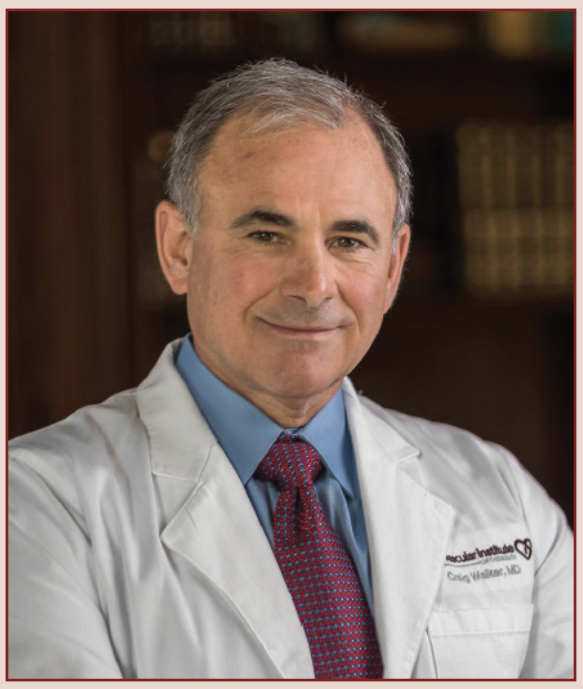

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In this December 2023 issue of *Vascular Disease Management,* I have chosen to address why we should screen for peripheral arterial disease (PAD) even in asymptomatic individuals over age 70 or diabetic patients or smokers age 50 and over and other select subsets of patients.

Screening for breast and cervical cancer in women is routine, as is screening for colon cancer for individuals age 45 or older or 10 years earlier than a first-degree relative diagnosed with colon cancer.

A single screening abdominal aortic ultrasound to detect abdominal aortic aneurysms is covered by Medicare in men ages 65 to 75 with a smoking history.

These screening studies have been demonstrated to detect disease at earlier stages, where therapy is more likely to be curative and to detect asymptomatic disorders that require close longitudinal follow-up.

Routine screening studies for detecting PAD in asymptomatic individuals are covered by some insurance programs in high-risk patients. Should there be routine screening in individuals age 70 or older, and in people with diabetes and smokers age 50 or over, even if there are no symptoms?

PAD has been reported by Mary Yost of the Sage Group to affect more than 25 million individuals in the United States. The Placement of Aortic Transcatheter Valves (PARTNER) trial, in which ankle-brachial (ABI) studies were performed in all patients age 70 or over, or those age 50 or older with a smoking history or diabetes, yielded a diminished ABI in 29% of the individuals, indicative of significant PAD. The overwhelming majority of those with diminished ABI self-reported either no symptoms or atypical symptoms that were attributed to other potential etiologies such as aging or arthritis. Multiple population health studies have identified PAD as an independent risk factor for cardiovascular death, predominantly from ischemic heart disease or stroke.

Despite these data, the overwhelming majority of ABI studies are only obtained in symptomatic individuals. I think that we may be missing an opportunity to dramatically improve cardiovascular outcomes in this large cohort of individuals at great risk of cardiovascular mortality and morbidity.

Many practitioners argue that there is little need to establish the diagnosis of PAD in asymptomatic or minimally symptomatic individuals, as no therapy is required. I vehemently disagree with this stance, as treatment is always required. The treatment required includes risk factor modification with aggressive control of lipids, hypertension management, smoking cessation, diabetic control, walking programs, sensory testing of the feet (particularly in those with diabetes), and possible antiplatelet regimens of low-dose aspirin if there is low bleeding risk. I have found that the likelihood of success with smoking cessation and compliance with medications and a walking program is dramatically higher in patients if there is demonstrated pathology that is explained to the patient. An abnormal ABI represents definitive pathology that can serve as motivation.

Patients with diminished ABIs can be appropriately informed of the increased risk of death from cardiovascular disease as well as the risk of amputation and the need to immediately report symptoms of chest discomfort, dyspnea, palpitations, or progression of leg pain.

Routine periodic evaluation should be stressed. There is no indication to perform an interventional or surgical procedure in asymptomatic patients unless there is risk of impending graft failure. The treatment of peripheral vascular disorders should be about far more than whether or not surgery or an interventional procedure is to be performed.

An ideal screening study should carry little risk and ideally should be painless. It should have high diagnostic accuracy. It should impact future outcomes and be cost-effective. It should have a relatively high yield of abnormal outcomes that impact therapy and future outcomes. ABIs in appropriate cohorts of individuals clearly meet these criteria and I think could improve population health outcomes. It is imperative to understand that screening studies such as ABIs have limitations. Patients with critical limb ischemia may have a misleadingly normal ABI if vessels are calcified and cannot be compressed, or if a specific tibial vessel supplying a dependent angiosome is occluded but other tibial vessels are patent (as we measure ABI by using the highest pressure at the ankle and in the brachial artery). Resting ABIs may be normal with aortic or Iliac disease. Despite the limitations of ABIs, I am a strong advocate of utilization of these risk-less screening studies in cohorts with a high risk of PAD as demonstrated in the PARTNER trial.

PAD is disabling and often deadly. There is ample data suggesting that improved diagnosis and preventive measures could save lives and limbs. Palpation of distal pulses during routine physical examination must be performed. We must look at PAD as far more than just a disease of the legs. Sick legs are not attached to healthy patients. Global evaluation of patients with PAD is mandatory. Making the diagnosis of PAD and instituting measures to improve long-term cardiovascular outcomes can save lives and limbs. ■