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Editorial

Limb Preservation Program and Peripheral Arterial Disease

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Limb – derived from the old English 'Lim'. A paired parts (Arm, Leg and Wing) of human that stick out/extends from the trunk of a body.

Limb preservation refers to the crucial steps taken in order to save a damaged limb from amputation. Amputation of a limb may be needed when there is serious infection a wound that won't heal or poor circulation that causes tissue to die.

Patients with vascular disease are at high risk for foot and leg wounds that do not heal and may ultimately require amputation to save their lives. Severe cases of Peripheral Artery Disease (PAD) can cause irreversible tissue damage and increase the risk for amputation if not treated.

The Limb Preservative Program focuses on saving limbs and also on the overall health and well being of the patient.

Limb-Preservation Program (LPP) requires coordinated effort by clinicians, nurses, allied health professionals and administrators dedicated to the cause of saving and maintaining functional limbs. This is a significant consideration because over 1.5 million people live after the loss of a limb; this number is expected to increase due to the aging of the population and the worldwide exponential rise in diabetes mellitus. Peripheral Arterial Disease (PAD) is one the important cause of limb amputation. The prevalence of PAD continues to increase worldwide. It is important to identify patients with PAD because of the increased risk of myocardial infarction, stroke and cardiovascular death and impaired quality of life because of a profound limitation in exercise performance. Lower extremity PAD affects approximately 10% of population, with 30% to 40% of these patients presenting with claudication symptoms. Peripheral arterial disease is common, but the diagnosis frequently is overlooked because of subtle physical findings and lack of classic symptoms. Screening based on the ankle brachial index using doppler ultrasonography may be more useful than physical examination alone. Noninvasive modalities to locate lesions include duplex scanning, computed tomography angiogram, magnetic resonance angiography and invasive modalities peripheral angiogram is the gold standard. Major risk factors for peripheral arterial disease are cigarette smoking, diabetes mellitus, older age (Older than 40 years) hypertension, hyperlipidemia and hyperhomocystinemia. Intermittent claudication may be improved by risk-factor modification, exercise and pharmacologic therapy. Based on available evidence, a supervised exercise program is the most effective treatment. Effective drug therapies for peripheral arterial disease include aspirin (With or without dipyridamole) clopidogrel, cilostazol, and pentoxifylline. By contrast, Critical Limb Ischemia (CLI) is considered the most severe pattern of peripheral artery disease. It is defined by the presence of chronic ischemic rest pain, ulceration or gangrene attributable to the occlusion of peripheral arterial vessels. It is associated with a high risk of major amputation, cardiovascular events and death. The management of CLI should include an exercise program, guideline-based medical therapy to lower the cardiovascular risk. Most of the cases, revascularization is indicated to save limbs,

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an “Endovascular First” approach and lastly surgical approach if all measures were failed. The choice of the intervention is dependent on the anatomy of the stenotic or occlusive lesion, percutaneous interventions are appropriate when the lesion is focal and short but longer lesions must be treated with surgical revascularization to achieve acceptable long-term outcome.

A LPP should include a patient support group as there is a significant mental component to loss of limb or living with a foot ulcer. A patient support group can be very important both preoperatively and postoperatively in helping patients deal with the clinical situation in maintaining functionality and mental outlook.

Education can be incorporated into the program in the form of seminars for patients and referring physicians. Education is critical to achieve the goal of limb preservation through the reduction of amputation and enhancement of the patient’s quality of life. The LPP also provides a format for research that is increasingly important to the healthcare system.

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