Diabetic Vascular Disease

The risk of diabetic patients developing lower extremity Peripheral Arterial Disease (PAD) is proportional to the severity and duration of diabetes in these patients. Peripheral arterial disease in patients with diabetes appears to be more aggressive, with both macrovascular (especially in small and medium sized vessels), and microvascular changes.

Diabetic foot ulcers may occur with PAD contributing to other conditions, and may be associated with (loss of sensation) neuropathy, venous insufficiency (varicose veins), trauma, and infection. There is an increased risk of foot ulceration in diabetic patients with peripheral neuropathy and a high plantar pressure.

The overall prevalence of foot ulcers in diabetic patients was 3% in those aged less than 50 years, 7% in those aged older than 60 years, and 14% in those more than 80 years of age, perhaps reflecting duration of diabetes, and presence of neuropathy and PAD.

Diabetes accounts for around 50% of all non-traumatic amputations, and a secondary amputation within several years after the first is exceedingly common. Neuropathy, cutaneous ulceration, and failure of wound healing may underlie the great majority of lower-limb amputations, but the three-year survival after an amputation is less than 50%. There is a decreased incidence of amputation or death from PAD in patients with good diabetic control.

Vascular and foot assessment is important to prevent and minimize the risks of ulceration and amputation in patients with Diabetes.

Investigations

- Clinical History and Examination.
- Assessment and treatment of Diabetic Vascular Risk Factors.
- Arterial Duplex Ultrasound Scans
- Ankle Brachial Pressures, Waveform and Toe Pressures.
- Angiography.