

## Diabetes 2019: Recent advances in management of diabetic foot - Ahmed Lamey - Mansoura University, Egypt

**Ahmed Lamey**

University of Malaya, Malaysia

Diabetes mellitus is a global epidemic. Peripheral neuropathy and peripheral vascular disease are complications of diabetes mellitus and the primary causative factors for foot ulceration. This summary describes the etiology and risk factors for diabetic foot ulceration and a system for evaluating the diabetic foot. The assessment of neuropathy and the grading of foot ulcers are critically examined. The management of diabetic foot syndrome is reviewed. The treatments to ensure vascular supply to the lower limb and control of infection as well as novel therapies, which are becoming available to treat nonhealing, “no-option” diabetic ulcers, are discussed. Diabetic neuropathy is central and present in the majority of patients. Distal symmetrical polyneuropathy has been reported as the primary cause of plantar ulceration. This custom-made footwear should be considered in patients with evidence of deformity with or without loss of peripheral sensation. The use of custom-molded shoes is required in people with severe deformity

or partial amputation. The choice of antibiotic depends on cultured pathogens. There are new drugs and generations of antibiotics recently working on for treatment of resistant infections. Diabetic foot ulceration is a preventable disease. Newer therapies are being developed though these are adjuncts to standard multidisciplinary management: a- Tissue-Engineered Biological Dressings: These products were initially aimed to act as a skin substitute for ulcers. They are thought to act by filling the wound with extracellular matrix and inducing the expression of growth factors and cytokines that contribute to wound healing. b- Stem Cells: There is an increasing body of research on the use of autologous stem cell administration to treat diabetic ulcers, ischemic ulcers, and critical limb ischemia. The administration of the therapy has been intramuscular, intra-arterial, and topical. Bone marrow mononuclear cells and peripheral blood mononuclear cells have been studied.