Introduction

Introduction

Diabetes Mellitus is a group of metabolic diseases characterized by hyperglycemia, resulting from defects in insulin secretion, insulin action or both. The chronic hyperglycemia of diabetes is associated with long-term damage, dysfunction, and failure of various organs, especially the eyes, kidneys, nerves, heart, and blood vessels. (*American Diabetes Association*, 2007)

Diabetes mellitus has metabolic, vascular, and neuropathic components that are interrelated; this makes DM a major health problem with long-term microvascular and macrovascular complications. The development and progression of diabetic complications are strongly related to the degree of glycemic control. (Özmen and Boyuada, 2003)

Diabetic foot disease constitutes the most common cause for hospital admissions in diabetic patients. From 15-25% of diabetics will develop a foot ulcer during their lifetime. (*Singh et al, 2005*)

The problem and features of diabetic foot are infection, ulceration, or gangrene. Neuropathy, poor circulation, and susceptibility to infection are the three major contributors to the development of diabetic foot; which when present, foot deformities or minor trauma can readily lead to ulceration and infection. (*Levin M.E*, 1996)

Diabetes related lower limb amputation is responsible for more than half of non trauma related amputations. (*Ogunlade et al, 2002*)

Introduction

Early detection of potential risk factors for ulceration can decrease the frequency of wound development. It is recommended that all patients with diabetes undergo foot examinations at least annually to determine predisposing conditions to ulceration. (*Boulton et al*, 2008)

Patient education formats have included lectures, hands on workshops, skills exercises, behavioral modification programs, and telephone reminders two recent reviews concluded that patient education improves short-term knowledge and may modestly reduce risk of foot ulcerations and amputations. (*Valk et al, 2002*)

Like prevention, management of the diabetic foot ulcer requires a multidisciplinary approach. Stabilization of the diabetes and associated medical problems, antibiotics, surgery, and orthotic devices all play their role. As with preventative care, the evidence base for management practice is not strong. (*Patout et al*, 2001)