Diabetic foot

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Diabetes is a common affection in Egypt that affects millions ofpeople of all ages and is a major cause of endstage renal disease,cardiovascular disease, blindness, peripheral neuropathies., andamputations. of the lower extremities. Diabetic foot infections areespecially an important clinical problem because lower extremityinfections are in their fifth decade, have had diabetes for approximately18- years, and although most are type Il diabetics generally requireinsulin for blood sugar control so that each year 14% of all diabeticpatients require hospitalization for diabetic foot problems.The factors responsible for the developments- of foot problems indiabetics can be classified as :If Predisposing factors :1- Vascular disease (angiopathy) .2- Neuropathy.3- Liability to infection.II} Precipitating factors. :A) Physical injury :-e.g. - mechanical trauma.- heat.B) Infection.Vascular disease:Macro and microangiopathy frequently occur and may cause footlesions in diabetics, just as it does in non-diabetics, and is the mostimportant factor in about half of the patients seen in the developedcountries. If the blood supply to the foot is reduced sufficiently, minorwounds will not heal and there may be ischaemic pain at rest.Neuropathy frequently coexists but this is a mixed blessing. On onehand, the patient is spared the pain of an ischaemic foot, but on theother hand, tissue damage and infection may progress unnoticed.Spread of infection, especially with anaerobic organisms, is potentiatedby ischaemia of the tissue.Peripheral neuropathy:The major components are:A) Loss of perception of pain. This and ischaemia are the two mostimportant factors in the development severe foot lesions.B) Paralysis of the small muscles of the foot. This results in clawing ofthe toes and a decreased effective load-bearing area under the forefoot. Thus abnormal forces may affect the deformed toes and thearea ofthe metatarsal heads.C) Autonomic neuropathy. This might potentiate the development oflesions by :I) Failure of reflex dilatation in response to local injury.II)) Abnormal vasoconstriction in response to cold.Infection:Infection occurs five times more often III diabetics thannondiabetics, and the rate of infections parallels the blood glucoselevels. More-over, defects are in polymorphonuclear functions such asphagocytosis, chemotaxis, intracellular bactericidal activity, and serumopsonic activity have been reported in patients with diabetes.Synergism between anaerobic and aerobic organisms is often the causeof the rapid spread of sepsis with the foul odour characteristic of sepsisin diabetic foot. Fungal infection especially in between the toes playsan important role in increasing the incidence of the infection. The careof the foot in a diabetic patient is of major importance in prevention ofthe precipitating factors, and in no case other than diabetic foot inwhich prevention is

much more easier and better than risk factor assmoking, control of the diet and control of blood glucose level willeffectively decrease the incidence of diabetic foot lesions.In already established cases, the first step is to assess the generalcondition of the patient and his foot locally and secondly to determinewhich policy is be adapted, and usually an initial conservativetreatment is suitable for most cases. Usually, the management isdevided into conservative and surgical lines .The conservative line constitutes a proper control ’Ofdiabetes byinsulin. and diet controlled by repeated blood urine tests, generalsupportive . measures, properly selected antibiotics and rest.Conservative measure usually fits for most cases, and includes earlycomplete drainage of any infection with adequate debridement,provides the best chance for saving a foot.gangrene is present or set intive of any effort done, or if itAmputations are resorted to, iffraafter the management of the case irrespis done for the security of the patient.Although distal and limited amputati ns rather than radical ones aretempting to the patient and his relati es, yet they should not be so tothe surgeon who should be governed nly by the facts-of the diabeticpathological process, the situation of patients problem with which hepresents and the security ofthe patient’ life.In recent years, our operative appr ach to ulceration and gangreneIII the diabetic foot has changed mark ly. We now investigate all suchpatients for ischaemia, even in t presence of neur.opathy andlocalized infection. An emphasis on arteria graphic delineation of thefoot arteries, and increasing succ ss with extreme distal arterialreconstruction, -especially vein byp ss grafts to the dorsalis pedisartery.As diabetic foot is thus a highlywhich should be handled from the slooked at lightly whatever the initial pelicate and complicated problemto a specialist and should not besenting lesion seems simple.