

DIABETIC FOOT

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Diabetes mellitus (D.M) is emerging as world's biggest health problem and is increasing at an alarming rate. It may be due to longevity of age, obesity, change of life style and unhealthy diet. It is estimated that 177 million people of the world or 5% of the world adult population is suffering from DM and 1 in 10 death in the people between 35 to 64 years of age is due to DM¹. Pakistan is at 8th number in the world in prevalence of DM².

It is common in the people near retiring age, in the west, whereas it is more common in younger age group in the developing countries like Pakistan³. It is estimated that 6.2 million or 8.5% of the diabetics suffer from the major and deadly complications like cardiovascular accidents and kidney failure and 15% suffer from diabetic foot⁴. Diabetic foot is disabling complication and 21-48 percent of the sufferers will need some sort of amputation sooner or later^{5,6}. It is estimated that risk of limb amputation is 15-46 times more in diabetics than in normal population⁷.

The real cause of diabetic foot is not yet known. A minor foot injury turns into fast spreading infection^{8,9}, in response to high blood sugar, neuropathy, deformity of foot, high planter pressure, arterial disease and poor local resistance. Diabetic foot is a real problem in under developed countries like Pakistan^{10,11,12}. Specially in rural population due to illiteracy, lack of education about the disease, unhygienic surrounding, poor socioeconomic condition, quackery, faith healing and attempted home surgery by quacks by unsterile instruments.

The most common infecting organisms have been found to be pseudomonas aeruginosa, staphylococcus aureus, E.Coli, Staph epidermitis and proteus¹³. A high frequency of gram negative anaerobic infection is not uncommon^{14,15} and mixed infections are quite frequent¹⁶. These infections are difficult to treat because;

- ▶ Impaired microvascular circulation limits the access of phagocytic cells and enough concentration of antibiotics to the infected area.
- ▶ Multiple drug resistant organism infection is very high in the hospitalized patient^{17, 18}.
- ▶ Clinical presentation is variable.
- ▶ A trivial injury can develop into fast progressive infection of the foot and becomes refractive to treatment¹².

Early diagnosis and treatment is mandatory¹⁹ otherwise a minor curable infection can progress into life threatening problems²⁰.

The mainstay in the management of this disease is early recognition of infection, controlling of blood sugar use of proper antibiotic, prompt surgical removal of dead necrotic tissue, care of vascular insufficiency and neuropathy.

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Fosfomyccin, levofloxacin, amikacin and vancomycin is claimed to be most effective antibiotics in one latest study¹⁷. Ciprofloxacin is found to be more effective against staph, aureus and ps, auruginosa in this disease¹³.

The outcome of the treatment depends upon the severity of the disease²¹. Poorly controlled blood sugar contributes to higher mortality²². Gram negative infection is more common in the cases with gangrene²³. Chronic osteomyelitis is always difficult to treat and needs adequate surgery²³.

Following precautions are suggested to minimize the morbidity and mortality in view of poor prognosis of this most disabling disease²⁴.

- ▶ Education of diabetics about DM, its complications and foot care.
- ▶ Blood sugar to be kept under control.
- ▶ Feet should be inspected daily for any prick, injury or infection.
- ▶ One should avoid walking & touching hot objects with unprotected feet.
- ▶ Rough and wet stockings should not be used.
- ▶ One should avoid tight and pinching shoes.
- ▶ One should reduce weight and avoid smoking.
- ▶ Cardiovascular and renal diseases should be treated in time.
- ▶ Injury or infection of the foot should be treated immediately.
- ▶ If gangrene (specially moist) has set in or is threatened, one should not resist the proper amputation, because it is a choice between the limb or life.

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