

Mycological Infection among Diabetic Foot Ulcer- Patients attending Diabetic Clinic, Kenyatta
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Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science
in Medical Mycology in the Institute of Tropical Medicine and Infectious Diseases. Jomo
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2010

ABSTRACT

The aim of the study was to isolate and identify fungal pathogens associated with dermatophytoses among diabetic patients and identify the spectrum of yeasts colonizing diabetic foot ulcers at Kenya National Hospital. A total of 164 samples from 61 individuals with mean age 59.5 ± 10.1 ranging between 38 and 90 years were obtained. Out of 164 samples analysed, the five most occurring moulds were *Biopolaris hawaiiensis* (5.5%), *Trichophyton schoenleinii* (3.7%), *Aspergillus niger* (3.0%), *Trichophyton rubrum* (3.0%), *Fusarium oxysporum* (3.0%). Occurrence of rest of the moulds was less than 3.0%. *Penicilium marneffei* (0.6 %) was exceptional due to its dimorphic nature at different temperatures and also its rare occurrence. Among the dermatophytes, the most commonly occurring mould was *Trichophyton schoenleinii* (3.7%) while among the non dermatophytes *Biopolaris hawaiiensis* (5.5%) was the most common. Among the pathogenic yeasts 8 species were identified. The most occurring yeasts were *Candida parapsilosis* (6.1%), *C. famata* (3.0%). Occurrence of the rest of the yeasts was less than 3.0%. patients with callus formation showed the highest occurrence of fungi (78.6%), compared to 65.2% in those with neuropathy, 53.3% in patients with structural deformity /charcot's joint, 41.2% in those with poor circulation, 40.0% in ischemia, 36.1% in poor glyceemic control, 33.3% in amputation, and 25.0% in corns and callus patients.

Morbidity is high in people with diabetes microorganisms responsible for the non-healing ulcers inflict devitalized tissue. Mycotic diseases of the feet among patient with diabetes Have hitherto been underestimated interms of diagnostic therapeutic and preventive needs. The study underscores the need for comprehensive mycological evaluation of non-healing diabetic foot and prudent antifungal treatment based on the laboratory results rather than depending on broad spectrum antibiotics for cure.

The results of this study will be of useful to health care providers in the management of diabetic foot ulcers infected with fungal pathogens. The recommendations of this study if implemented could reduce the length of hospital stay and the financial burden for both the patient and the government.