Diabetic Patients' Lower Extremity Wounds' Scope and Severity of Fungal Infection

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Abstract:

Aim: The current study intends to examine the prevalence of fungal infections in people with and without diabetes in Saudi Arabia.

Method: This study included 720 Saudi Arabian people suffering from type 2 diabetes who were admitted as a result of diseased LEWs. There were 480 male and 240 female patients. For fungal infection testing, the surgical wound bedding was sampled perioperatively from a depth of around (0.5x0.5) cm.

Results: Fungi were discovered in 27.3% of participants. Itraconazole resistance was the highest at 17.8%, followed by amphotericin B resistance (6.8 %), voriconazole resistance (6.8%), fluconazole resistance (3.9%), and flucytosine resistance (1.6 %). Bacteria in deep tissues were detected in 79.8% of patients. E. faecalis (14.2%), S. aureus (12.3%), and P. aeruginosa (10.9%) are the most often isolated bacteria. Additionally, 14.5% of the subjects tested negative for bacteria and fungi in subcutaneous fat. Significantly increased fungal infections were observed in individuals with higher glycosylated hemoglobin concentrations.

Conclusions: According to this study, DLEWs frequently have deep-seated fungal illnesses. Considering the frequency with which DLEWs result in amputations and the length of time it takes for wounds to heal, a study of the pathogenicity of fungi from deep tissues of DLEWs is essential.

Keywords: Diabetic lower-extremity wounds (DLEWs), fungal infection, and fluconazole.

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