

Spectrum and Prevalence of Candida Infection in Diabetic Foot Ulcers

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Abstract : Introduction: In diabetic foot ulcers, if fungal agents such as Candida species penetrate into the cutaneous or depth of ulcer, can increase the degree of the wound and cause Candia infection and make it more difficult to heal. Material & Methods: A cross-sectional study was performed on 100 diabetic foot ulcer patients in 2020 in Sari, Iran. patient's data and wound grade were recorded in a questionnaire. Candida infection was diagnosed with direct microscopic examination and culture of samples. Colony-PCR molecular method was used for ITS region of DNA and then PCR-RFLP with Msp1 enzyme and using HWP1 specific gene to determine species of Candida agent. Results: Of 100 patients, the mean age 62.1 ± 10.8 years, 95% type 2 diabetes, 83% >10 years duration diabetes, 59% male, 66% > poor education level, 99% married, 52% rural, 95% neuropathic symptoms, 88% using antibiotics, 69% HbA1C >9%, and mean ulcer degree 2.6 ± 1.05 were. Candida infection was seen in 13% of the deep tissue of the wound and 7% cutaneous around the wound. The predominant Candida isolated was C. parapsilosis (71.5%), C. albicans (14.3%). Fungal infections caused by mold fungi were not detected. There was a statistically significant relationship between yeast infection and gender, rural, HbA1C and ulcer degree. Conclusion: Mycological evaluations often are ignored. Candida parapsilosis is the most common infectious agent in these patients and may require specific treatment. Therefore, more attention of physicians to Candida infections particularly, early diagnosis and effective treatment can help faster recovery and prevent amputation.

Keywords : diabetic foot ulcer, candida infection, risk factors, c. parapsilosis

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