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Abstract (publication only)

**Epidemiological study of diabetic foot infections in Crete, Greece**

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**Objectives:** Diabetic Foot Infections (DFIs), an important subset of complicated skin infections, are common and often difficult to treat, being the leading cause of non-traumatic lower limb amputations. The objective of this study was to present the clinical characteristics, microbiology and outcome of DFIs. **Patients and Methods:** Patients with DFIs were prospectively evaluated. A standard questionnaire was used for clinical data collection, while swabs and/or biopsies were used for microbiological evaluation. **Results:** Forty-four individuals, (27 males; 61.4%) with median age of 72 years (range 54 - 90), and known duration of diabetes 20 years (5 - 40.0) were enrolled. The most common comorbidities were peripheral arterial disease (41;93%), cardiovascular disease (37;84%), diabetic neuropathy (34;77%) and chronic kidney disease (15;34%). Eight patients (18%) had coexisting osteomyelitis. Twenty nine (65%) underwent lower extremity amputation. Among them only 5 (11%) had a major amputation. Sixty three pathogens were isolated from tissue cultures of 28 patients and 96 from pus obtained from 41 patients. Gram-positive aerobes were the most frequently isolated from 31 out of 63 (49%) tissue, and 44 out of 96 (46%) pus cultures, followed by Gram-negatives isolated from 28 (44%) and 44 (46%) respectively. Infection was polymicrobial in 19 (68%) out of 28 patients with tissue and in 28 (68%) out of 41 with pus culture. The mean number of isolates per patient was 2.2 by pus and 1.45 by tissue sampling. Compatibility rate of the results of tissue biopsy with pus culture was 80%, whereas in patients with osteomyelitis rate was 100%. Multidrug-resistant organisms (MDROs) were isolated in 10 patients (38%) from tissue and in 16 (39%) from pus. Initial empirical antimicrobial treatment was considered inappropriate, based on antimicrobial susceptibility test results, in 23 patients (52%). The mean duration of hospitalization was longer in patients infected with MDROs [15+4.5 days vs 7.1+1.7 (p<0.006)]. One patient died due to septic shock. **Conclusions:** The present study showed that DFIs can be a complex condition due to the polymicrobial nature and frequent isolation of MDROs. However, swabbing and deep tissue cultures appear to be equally reliable for indication of appropriate antimicrobial treatment.