

## [P11] COMMON PATHOGENS ISOLATED IN DIABETIC FOOT INFECTIONS AND RESPECTIVE RISK FACTORS FOR GRAM-NEGATIVE ORGANISMS

Aggelos Pappas<sup>1</sup>, Polixeni Karakosta<sup>1</sup>, Anna Kasimato<sup>1</sup>, Efpraxia Gourgourela<sup>2</sup>, Maria Vakonaki<sup>1</sup>, Aikaterini Zouridi<sup>3</sup>

<sup>1</sup>"venizeleio-Pananeio" Hospital, Herakleion, Crete, Greece

<sup>2</sup>Health Center OF Tzermiado

<sup>3</sup>"venizeleio-Pananeio" Hospital, Herakleion, Crete, Greece, Medical Microbiology, Heraklion, Greece

**Aim:** The current study aimed to determine the most common microorganisms involved in diabetic foot infections and to identify possible risk factors related to the isolation of Gram-negative bacteria.

**Method:** In this retrospective study, all microorganisms cultured from 32 outdoor and admitted patients with diabetes mellitus of 'Venizelio' General Hospital of Heraklion, Greece. A total of 47 infected diabetic foot wounds were cultured using standard microbiological procedures. The samples were taken mainly by curettage and in cases where it was impossible by ulcer base swab. Data regarding sociodemographic characteristics, history of hospitalization and isolated microorganisms were recorded.

**Results/Discussion:** We identified 105 isolates, the most common pathogens of which were *Enterococcus faecalis* (12,4%), *Staphylococcus aureus* (9,5%) and *Proteus mirabilis* (7,6%). 45 isolates were Gram-negative in 32 cultures, corresponding to 68% of all cultures. 55% of the cultures were multimicrobial. 40% of patients suffered from osteomyelitis at some time, 15,5% were treated surgically for their infection whereas small amputation was performed in 3 patients (one with metastatic colon cancer in order to start as soon as possible chemotherapy). Mean age of patients was 63.8 (SD = 11.0) years. Compared to Gram-positive infections, cultures with Gram-negative organisms were taken from patients with a BMI > 30 kg/m<sup>2</sup> (p-value = 0.028). No significant association was found between isolated microorganisms and duration of diabetes, HbA1c, smoking or history of hospitalization.

**Conclusion:** In our study, Gram-negative organisms were isolated in more than 2/3 of the cases indicating that both Gram-positive and negative bacteria should be considered as common causes of diabetic foot infections. Treating physicians should always take cultures before starting empirical therapy, especially in obese patients, in order to accomplish higher cure rates and to lower the risk of antibiotic resistance.