

[P14] INFECTION AND GUT COLONIZATION BY KPC-PRODUCING KLEBSIELLA PNEUMONIAE AS RISK FACTORS FOR MORTALITY IN PATIENTS WITH DIABETIC FOOT INFECTIONS: A MULTICENTRE CASE-CONTROL STUDY

Elisabetta Iacopi¹, Alberto Coppelli¹, Chiara Goretti¹, Alberto Piaggese¹

¹*Pisa University Hospital, Medicine Department, Diabetic Foot Section, Pisa, Italy*

To evaluate the role of KPC-Kp gut colonization and infection in influencing the mortality rate of diabetic patients with foot infection (DFI) we performed a retrospective, multicenter case-control study.

We analysed data from DFI patients cared for in 7 different centres. Patients were grouped as follow: Group A, patients with KPC-Kp isolated from infected foot specimen, Group B, patients with KPC-Kp isolated from rectal swab and Group C, control patients (negative for KPC-Kp cultures both from foot lesion and rectal swab).

From December 2010 to July 2015 62 DFI patients with KPC-Kp infections (42) (group A) or KPC-Kp gut colonization (20) (group B) were identified. The control group was represented by 49 pts (Group C). The three groups were similar regarding main demographic and clinical characteristics, except for the Charlson Index, significantly higher in Group A (13.5) and B (6.3) than in Group C (3.2) ($p=0.002$ Group A vs B and Group B vs C).

The mean duration of hospital stay was longer in Group A and B (respectively 40 and 44 days) vs Group C (7 days – $p= 0.024$ Group A vs B and $p=0.018$ Group B vs C). The levels of serum markers of Inflammation were significantly higher in Group A and B than in Group C, both Procalcitonin (Group A 1.86 ng/ml, Group B 1.12 ng/ml, Group C 0.72 ng/ml – $p=0.025$ Group B vs C, $p=0.04$ Group A vs C) and C Reactive Protein (Group A 13.5 mg/dl, Group B 6.3 mg/dl, Group C 3.2 mg/dl – $p=0.002$ Group A and group B vs C). Mortality was significantly higher in Group A (30.9%) and Group B (35 %) than in Group C (12.1% - $p= 0.038$ Group A vs C and $p= 0.004$ Group B vs C). The healing rate of DFI was 33% in Group A ($p= 0.03$ vs Group C) 30% in Group B ($p= 0.002$ vs Group C) and 57% in Group C.

In diabetic foot patients gut colonization and foot infection with KPC-Kp are associated with a reduction in healing rate and a significant increased in mortality