Braz J Microbiol. 2018 Apr - Jun;49(2):401-406.

Epidemiology of diabetic foot infections in a reference tertiary hospital in India.

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The present study attempts to examine the microbial profile and antibiotic susceptibility of diabetic foot infections in the intensive care unit of a tertiary referral centre for diabetic foot. As part of the study, we also attempted to find the prevalence of blaNDM-like gene among carbapenem-resistant gram negative infections. A prospective study of 261 patients with diabetic foot infections was performed during the period between January 2014 and June 2014. A total of 289 isolates were obtained from 178 tissue samples from 261 patients, 156 (59.7%) males and 105 (40.2%) females, with a mean age of 58 years (-15 years), having diabetic footinfection. No growth was seen in thirty eight (17.6%) tissue samples. Out of the total samples, 44.3% were monomicrobial and 55.7% were polymicrobial. Gram negative pathogens were predominant (58.5%). Seven of the total isolates were fungal; 0.7% showed pure fungal growth and 1.7% were mixed, grown along with some bacteria. The most frequently isolated bacteria were Staphylococcus aureus (26.9%), followed by Pseudomonas aeruginosa (20.9%). Of the 58.5% gram negative pathogens, 16.5% were Enterobacteriaceae resistant to carbapenems. Among these isolates, 4 (25%) were positive for blaNDM-like gene. Among the rest, 18.6% were carbapenem-resistant Pseudomonas, among which 4 (36.3%) were blaNDM. Among the Staphylococci, 23.7% were methicillin-resistant Staphylococcus aureus. Our results support the recent view that gram negative organisms, depending on the geographical location, may be predominant in DFIs. There is an increase in multidrug-resistant pathogens, especially carbapenem resistance and this is creeping rapidly. We need to be more judicious while using empiric antibiotics.