P10

Epidemiological survey of microbiological profile of diabetic foot infection in an outpatient Diabetes center in Portugal. The role of potentially multiresistant bacteria.

A.L. Costa, Z. Peerally, N. Pedroso, R. Oliveira, J. Raposo
APDP – Diabetes Portugal

Background and Aims: Portugal has one of the highest prevalence of Diabetes Mellitus, lower extremity amputations and MRSA skin and soft tissue infections in Europe, with no published data on the prevalence and characterization of diabetic foot infection (DFI). The aim of this survey is to describe microbiological profile of DFI, and to evaluate the possible association between potentially multiresistant bacteria of DFI in an outpatient multidisciplinary Diabetic Foot Center in Lisbon. **Methods:** In an observational retrospective study between January 2010 and March 2012, a total of 205 cultures of DFI in 157 patients have been evaluated. All the specimens were from clinically infected foot ulcers moderate to severe using according to the University of Texas classification. The microbiological products were collected by loop swabs using the Levine method and specimens were sent for aerobic culture and antibiotic susceptibility test.
We obtained from our data base detailed demographic and clinical data, diabetic foot characteristics and initial antibiotic therapy. **Results:** Staphylococcus aureus (SA) was the main microorganism isolated (156/205), including 52 (25.4%)methicillin-resistant Staphylococcus aureus (MRSA), followed by coagulase-negative Staphylococcus spp. (62/205). Among the Gram negative group (92/205), Pseudomonas aeruginosa was the main microorganism isolated (27/205). Staphylococcus aureus was isolated (66/85), (including 28 MRSA), as monomicrobial infection. Polimicrobial flora including Gram negative microorganisms was isolated in 120 (59%) of the total episodes. 12% of the Staphylococcus aureus isolate (MRSA not included) were resistant to amoxicillin/clavulanic acid,25% to cotrimoxazole, 32% to clindamycinand 42% to ciprofloxacin.Among the Gram negative group (excluding Non Fermenting Gram Negative Bacteria), 43% were resistant to amoxicillin/clavulanic acid, 36% to ciprofloxacin and 23% to both. 11% of Pseudomonas spp. were resistant to ciprofloxacin. Among the coagulase negative Staphylococcus spp. 95% was susceptible to amoxicillin/clavulanic acid and 77.4% to ciprofloxacin. The patients undergoing antibiotic therapy, 62% of the initial antibiotic regimens were considered adequate based on the antibiotic susceptibility test results. **Conclusion:** Staphylococcus aureus, either alone or as a component of mixed infection, was the most frequently isolated pathogen in DFIs in our clinic. Prevalence of multi-drug resistant organisms, namely MRSA, was high and probably related to associated co-morbidities, duration of the ulcer, previous antibiotic therapy and/or hospitalization. The prevalence of microorganisms in health care facilities, presence of polimicrobial flora and potentially multi-drug resistant bacteria should be considered in the initial managementof deep infected diabetic ulcers in our settings.When choosing the empirical antibiotic, a special attention should be dedicated to fluoroquinolones.