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Objectives: The role of coagulase-negative staphylococci (CNS) in bacteremia continues to be controversial, since CNS were mostly recognized as contaminants, being part of the cutaneous flora. Recently, several studies have reported increasing incidence and severity of infections due to CNS. *Staphylococcus haemolyticus* is frequently recovered from hospitalized patients and is characterized by resistance to multiple antimicrobial agents. The aim of this study was to evaluate the frequency of CNS related bloodstream infections and antimicrobial susceptibilities of the strains.

Methods: Over a two year period, 2010-2012; 4248 blood cultures from patients admitted to intensive care units of Ahi Evran University Research and Teaching Hospital, Turkey and 1182 of the samples showed growth. Strain identification and antimicrobial susceptibility testing was performed by VITEK- 2 (bioMerieux, France). Additionally, disk diffusion test using erythromisin (ERY), klindamisin (CLI), vancomycin (VA), quinopristin-dalpofopristin (Q-D), chloramphenicol (C), penicilin (PEN), tetracycline (TE), ciprofloxacin (CIP), co-trimoxazole (SXT), rifampicin (RIF), gentamicin (GEN), cefuroxime (CFX), fusidic acid (FA), amikacin (AK) (Oxoid, England) was performed according to the CLSI. Methicillin resistance was determined by cefoxitin 30µg (Oxoid, England) disk and confirmed with oxacillin screen agar supplemented with 4% NaCl and 6 µg/µl oxacillin (Sigma-Aldrich, USA). Clinical significance of CNS strains was defined as at least two blood cultures positive for coagulase-negative staphylococci within 5 days, or one positive blood culture plus clinical evidence of infection such as abnormal white blood cell count and temperature. According to the results CNS strains were classified into two groups according to the clinical evidence of infection; Contamination or true bacteremia. SPSS 15.0 software was used for data analyses. P value <0.05 was considered as significant.

Results: According to the true bacteremia definition, *S.haemolyticus* represented 102 of 635 (13%) CNS isolates. These strains were recovered from 59 (57.8%) male and 43 (42.2%) female patient admitted to ICU (between 1-100 years; 64.28±22.58 years). Of these, 64 (62.7%) were resistant to methicillin. Patients aged over 60 years were more prone to have methicillin- resistant *S.haemolyticus* strains. All isolates showed susceptibility to VA, LIN and Q-D. Methicillin-resistant *S.haemolyticus* strains were more likely displayed resistance to all antimicrobials tested except ERY and CLI (p<0.05). Distribution of susceptibility testing results of the strains were shown on Figure.

Conclusion: The increasing incidence could be explained by increased recognition and awareness of CNS infections, a gradual change in the definition of true bacteremia from an obligatory two positive blood cultures to one positive culture associated with a clinical picture compatible with infection. Furthermore, infections are generally not susceptible to multiple drugs, necessitating the use of vancomycin. Fortunately, vancomycin resistant strain was not detected among our patient group. Recent increases in intermediate resistance to this drug of last resort are worrisome because of limited treatment options.

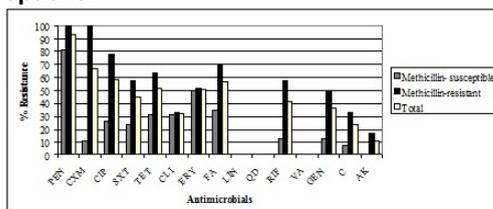


Figure. Distribution of antimicrobial resistance rates of the *S.haemolyticus* strains by methicillin susceptibility testing.