Pediatr Ther 2018, Volume 8
DOI: 10.4172/2161-0665-C2-055

Frequency and antimicrobial susceptibility pattern of microorganisms isolated from hospitalized infantile burn cases in a tertiary care hospital

Jalal Uddin Akber
Baqai Medical University, Pakistan

Aim: The aim of this study was to determine the frequency of organisms and their antimicrobial sensitivity pattern in infantile burn.

Methods: This retrospective study was conducted at the plastic surgery, burn unit of Patel Hospital during period of 7 years from January 2007 to December 2013. Children aged one year or less at the time of admission were included in the study. SPSS 21 version was used for statistical analysis.

Results: Total 789 pediatric burn patients were admitted in Patel Hospital during January 2007 to December 2013, in which 106 were infants. Eighty-three (78.3%) infants had scald burn, 21 (19.8%) had fire burn and 2 (1.9%) had chemical burn. Out of 106 infantile burn cases, 28 (26.4%) had growth of organisms in wound cultures. Initially at the time of admission only 2 (7%) of infants had growth of organisms in wound cultures, but on subsequent cultures the growth of organisms increased. Single organism was isolated in wound cultures of 9 (32.1%) patients, while two organisms were found in 8 (28.6%) and three organisms were found in 11 (39.3%) infants. The commonest organisms present both in scald and fire burn were *Staphylococcus aureus* 17 (60.7%) followed by *Acinetobacter species* 14 (50%) and *Pseudomonas aeruginosa* 13 (46.4%) respectively. If we see the sensitivity pattern, *Staphylococcus aureus* was 100% sensitive to vancomycin and linezolid followed by fusidic acid 47%. If we see the culture and sensitivity pattern of *Pseudomonas aeruginosa*, *Acinetobacter species* and *Klebsiella species* all were 100% sensitive to polymyxin B. While *Providencia species* and *Proteus species* were 100% sensitive to cefoperazone + sulbactam and meropenem.

Conclusion: This study high lights that *Staphylococcus aureus*, *Acinetobacter species* and *Pseudomonas aeruginosa* are the common organisms in infantile burn. While vancomycin and polymyxin B are the effective empirical therapy in our setup. Antibiotic resistance due to inappropriate use of drugs is a common finding in our environment and medical staff must be educated regarding the rational use of antibiotics. Wound swabs should be performed in all cases.

akber.jalal@yahoo.com