عنوان مقاله:

Determination of Antibiotic Resistance Pattern of Bacteria Isolated from Blood, Cerebrospinal Fluid, and Urine Samples in Neonatal Intensive Care Unit of Ali Asghar Hospital, Iran during 2013-15

محل انتشار:

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خلاصه مقاله:

Background: Infections are one of the most important causes of death in infants, especially in developing countries. Inappropriate use and administration of antibiotics can contribute to the resistance and spread of infection. In this study, we determined the antibiotic resistance pattern of the bacteria isolated from clinical samples of blood, cerebrospinal fluid, and urine in the neonatal intensive care unit (NICU) of Ali Asghar Hospital, Iran during 2013-2015. Methods: For the purposes of the study, clinical samples of blood, cerebrospinal fluid, and urine were collected from the NICU of Ali Asghar Hospital during 2013-15. The type of bacterial strain and antibiotic susceptibility pattern was determined by routine microbiological tests. The collected data were analysed in SPSS software (version 19), using x2, Student's t-test, and ANOVA test for comparison. Results: In total, 240 positive culture samples (118 blood, 117 urine, and 5 cerebrospinal fluid samples) were collected for this research. The most common isolates in the blood, urine, and cerebrospinal fluid samples were Staphylococcus epidermidis (63.6%), Klebsiella (35%), and Acinetobacter Baumannii (40%), respectively. The highest antibiotic resistance in S. epidermidis isolated from blood samples was found against amikacin and cefotaxime, while linezolid and vancomycin were the most effective antibiotics against S. epidermidis. Moreover, ciprofloxacin and nitrofurantoin were the most effective antibiotics against Klebsiella isolated from urine samples, while this bacterial strain had the highest resistance to imipenem and ampicillin. Despite the fact that A. Baumannii strains were resistant to most studied antibiotics, ceftazidime and ceftriaxone had an acceptable antibacterial effect against these isolates.Conclusion: Continuous surveillance for antibiotic susceptibility, rational use of antibiotics, and the strategy of antibiotic cycling can provide some answers to .the emerging problem of antibiotic resistance

کلمات کلیدی:

Antibiotic resistance, Infection, Neonates, NICU

لینک ثابت مقاله در پایگاه سیویلیکا:





