

عنوان مقاله:

Bacterial Etiology and Antibiotic Resistance Patterns in Neonatal Sepsis in the West of Iran

محل انتشار:

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خلاصه مقاله:

Background: Antimicrobial resistance is an important public health issue worldwide, which is prevalent in developing countries such as Iran. The present study aimed to assess the bacterial sepsis and patterns of antimicrobial susceptibility in neonatal sepsis. Methods: This cross-sectional study was conducted on ۴۳۰ neonates with the clinical suspicion of septicemia, who were admitted to the neonatal intensive care unit (NICU) of Beasat Teaching and Referral Hospital in Sanandaj, Kurdistan, and west of Iran from May ۲۰۱۸ to April ۲۰۱۹. Data analysis was performed using the WHONET software version ۵.۶, and the research units were described based on frequencies and proportions. Results: From a total of ۴۳۰ neonates, ۴۱ blood cultures were positive. Early onset sepsis (EOS) and late onset sepsis (LOS) were detected in ۱۷(۴۱.۵%) and ۲۴ (۵۸.۵%) cases, respectively. Coagulase-negative Staphylococci (CONS) and Acinetobacter spp. were identified in ۱۸/۴۱ (۴۳.۹%) and ۷/۴۱(۱۷%) isolates as the most predominant species. CONS and Acinetobacter spp. had the highest resistance against ampicillin (۱۳; ۷۲.۲% and ۵; ۷۱.۴% respectively). In addition, Gram-negative and Gram-positive bacteria both showed resistance to third-generation cephalosporins, while multidrug resistance was observed in ۲۲ isolates (۵۳.۷%). On the other hand, the isolates of Gram-positive bacteria exhibited more efficient susceptibility patterns against third-generation antibiotics, such as clindamycin, vancomycin, and ciprofloxacin. Conclusion: According to the results, neonatal sepsis was primarily caused by CONS and Acinetobacter spp. as they showed high resistance to first- and second-generation antibiotics at the NICU. Therefore, it is recommended that proper policies be adopted to restrict antibiotic use without prescription in the community.

کلمات کلیدی:

Neonatal sepsis, Intensive Care Unit, Antibiotic resistance, Multidrug resistance

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