

عنوان مقاله:

Incidence of Multidrug-Resistant, Extensively Drug-Resistant, and Pandrug-Resistant *Pseudomonas aeruginosa* Strains Isolated from Clinical Specimens

محل انتشار:

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خلاصه مقاله:

Aims: Recently, overuse and misuse of antibiotics have led to the development of multidrug-resistant bacteria and infectious diseases caused by these organisms, increasing morbidity and mortality rate in patients. *Pseudomonas aeruginosa* as a common Gram-negative pathogen is predominantly responsible for hospital-acquired infections. In this study, the prevalence of multidrug-resistant (MDR), extensively drug-resistant (XDR), and pandrug-resistant (PDR) *P. aeruginosa* strains isolated from clinical specimens of patients admitted to a teaching hospital in Gorgan, Iran, was determined. **Materials & Methods:** Clinical samples of blood, urine, burn wound, eye, and secretions (pleural fluid, tracheal or bronchial aspirates and sputum) were collected from all hospitalized patients during a three-month period from April to June ۲۰۱۹. Using conventional biochemical methods, *P. aeruginosa* strains were identified, and the antibiotic resistance pattern was determined by Kirby-Bauer disc diffusion method. **Findings:** A total of ۴۰ (۲۵.۴%) *P. aeruginosa* strains were isolated from ۳۷۷ clinical specimens. Most of the *P. aeruginosa* strains were isolated from wound (۳۵%) and urine (۳۰%) samples. Most of the *P. aeruginosa* positive samples were recovered from intensive care unit (۳۲.۵%) and burn ward (۳۰%). The highest susceptibility was shown to fosfomycin (۱۰۰%), and the lowest susceptibility was observed to ceftazidime (۸۷.۵%), followed by aztreonam (۶۰%). Based on the results, ۵۲.۵ and ۲۰% of the isolates were MDR and XDR, respectively. All of the MDR isolates exhibited susceptibility to colistin. No PDR phenotype was observed. **Conclusion:** Continuous monitoring of drug resistant strains among clinical isolates of *P. aeruginosa* must be done to adopt effective strategies to decrease the threat of antimicrobial resistance.

کلمات کلیدی:

Drug -resistance, Phenotype, Prevalence, *Pseudomonas aeruginosa*

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