

عنوان مقاله:

Genetic Profiling of *Pseudomonas aeruginosa* Isolates from Iranian Patients with Cystic Fibrosis Using RAPD-PCR and PFGE

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خلاصه مقاله:

Objective(s) *Pseudomonas aeruginosa* is the most important cause of chronic lung infections and death in patients with cystic fibrosis. Determining the distribution of specific strains within patient populations is important in order to examine the epidemiology of the disease and the possibility of cross infection among patients. Materials and Methods Forty six Iranian patients with cystic fibrosis were studied for colonization with *P. aeruginosa*. Colony phenotype was recorded and antibiotic susceptibility to " antibiotics was determined using the disc diffusion method. Genetic fingerprinting was carried out by RAPD-PCR and by PFGE. Results Forty five *P. aeruginosa* isolates were recovered from ۳۱ patients including sequential cultures from ۹ subjects. The rate of colonization increased with age. All isolates were susceptible to tobramycin and ciprofloxacin, ۹۷.۸% were sensitive to amikacin and piperacillin, ۹۳.۳% to gentamycin, ۹۱.۱% to ticarcillin, ۸۶.۷% to colistin, ۸۰% to carbenicillin, ۴۸.۹% to cefotaxime, ۲۶.۷% to imipenem and ۱۱.۱% to ceftazidime. Genetic fingerprinting showed similar distribution profiles for RAPD-PCR and PFGE and the majority of the isolates had unique fingerprints. Conclusion No relationship was observed between the obtained genotypes and antibiotic susceptibility profiles and common predominant virulent clones were not found among the isolates.

کلمات کلیدی:

Cystic fibrosis, Genetic fingerprinting, PFGE, *Pseudomonas aeruginosa*, RAPD-PCR

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