Antibiotic Susceptibility of Pseudomonas Aeruginosa Isolated from Cystic Fibrosis Patients

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Abstract

Background and Objective: Cystic fibrosis (CF) is an autosomal recessive genetic disease and *Pseudomonas aeruginosa* is one of the most common bacteria colonized in CF patients. Growing resistance of this bacterium to antibiotics now a day is a challenge of controlling infection in CF patient. In this study colonization of CF patients with *Pseudomonas aeruginosa* and antibiotic susceptibility pattern of isolated strains were examined.

Material and Methods: From 100 CF patients, during a year, sputum and bronchial swabs were collected. After culturing the samples, some of them were reported as Pseudomonas *aeruginosa* using biochemical tests. Mucoid strains of Pseudomonas aeruginosa were identified the same as non-producing alginate strains while for catching single pure colony, repeated passage was used. For determining antibiotic resistance of Pseudomonas aeruginosa to some antimicrobial agents Kirby-Bauer method based on CLSI was used.

Results: Of 100 samples, 40 (40%) were positive for *Pseudompnas aeruginosa*. The prevalence of P. aeruginosa was 23.8, 36.84 and 80% at the age of 1-3, 4-12 and 13, respectively.

Conclusion: Statistically, there is a significant difference between age and contracting with Pseudomonas aeruginosa in that the higher the age the more colonization with Pseudomonas aeruginosa.

Key words*: Pseudomonas Aeruginosa*, Cystic Fibrosis, Drug Resistance