GENETIC POLYMORPHISM OF *PSEUDOMONAS AERUGINOSA* IN CYSTIC FIBROSIS PATIENTS.

Dias P.M.T.; Ferreira A.G.; Marques E.A..

Departamento de Microbiologia; Universidade do Estado do Rio de Janeiro, Rio de Janeiro, R.J, Brazil.

Chronic *Pseudomonas aeruginosa* infection is a major cause of morbidity and mortality in cystic fibrosis (CF) patients. We characterized 228 isolates of *P. aeruginosa* from 50 CF patients, according to their susceptibility to 8 antimicrobial agents and their DNA macrorestriction profiles. In this work aiming to determinate general analysis of *P. aeruginosa* as well as prospective study for each patient we performed a RAPD technique followed by computational determination of similarity profile. Results obtained showed a great diversity (81 profiles), without an epidemic clone. The majority of patients (88%) were colonized by distinct RAPD profile; however some patients were transiently colonized by the same RAPD pattern. Most isolates (± 90%) were susceptible to all antimicrobials agents, although consecutive isolates from the same patient may display differences in their susceptibility. High levels of resistance (≥ 256µg/mL) to ceftazidime and tobramycin occurred in 4,7% and 1,4% of isolates, respectively. Our results indicated that CF patients remain colonized by more than one strain of *P. aeruginosa* for long periods of time. In addition, observation of different genotypes in the same patients suggests that colonizing strain may occasionally be replaced.