

Study of Clinical Isolates of *Pseudomonas aeruginosa*: Correlation between Resistance Phenotype and Biofilm Production

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Abstract—*P. aeruginosa* infection has been frequently associated with treatment non-responsiveness globally, especially in the immunologically less robust age group, such as infants and elderly. As such, even patients who have been admitted in hospital are highly vulnerable to this menace. This situation has worsened with the rapid emergence of multiple drug resistance strain.

Keeping this background in mind, clinical isolates of bacteria were obtained from infected individuals that were characterized for drug susceptibility using Kirby-Bauer antibiotic disc diffusion method. Disc of various drugs like Tetracyclin, Piperacillin, Polymyxin-B, Gentamicin, Ceftazidime, Imipenem, Tobramycin, Doripenem were tested for the detection of sensitivity of isolates towards them. Biochemical test such as MRVP test were also carried out to test the presence of *P. aeruginosa*, which was further conformed by their ability to grow in Cetrimide agar and Milk agar plates. Biofilm production by bacteria was also estimated and their correlation was determined with respect to their resistance phenotype as biofilm formation been positively correlated with increased antibiotic resistance.

References

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