The recognizing of *fli C* gene in *Pseudomonas aeruginosa* isolated from clinical sample with PCR

Imani fooladi ,AA. (phD)
Assistant Professor of Research
Center of Molecular Biology,
Baqiyatallah University of Medical
Sciences

Sattari ,M (phD)
Associate Professor of Department of
Bacteriology, Faculty of Medical
Sciences. Tarbiat Modares University,
Tehran, Iran

Godarzi ,GH (MSc)
Resident of Bacteriology, Faculty of
Medical Sciences. Tarbiat Modares
University, Tehran, Iran

Corresponding Author: Sattari M

E.mail: Sattarim@modares.ac.ir

Abstract

Background and objectives: *Pseudomonas aeruginosa* as an opportunistic pathogen can establish lethal infections in immunocompromised patients or those exposed to predisposing factors. This bacterium contains a single polar flagellum causing motility, chemotaxis and colonization in acute phase of infection. The flagella filament is made up of a structural protein called flagellin. This study was aimed at determining The frequency of *fliC* gene in Clinical Samples.

Material and Methods: In this study, a pair of specific primer for types of flagellin (a, b type) was designed and by using PCR method its structural gene (*fliC*) was recognized and amplified in clinical strains.

Results: This original primer has appropriate efficiency in diagnostic of *pseudomonas aeroginosa* flagellum. Our study shows that 85% of the Clinical Samples have a *fliC* gene.

Conclusion: This method can be applied to recognizing of the motile strains, and their antigenic typing, and complete amplification of *fliC* sequence in order to cloning and expression of recombinant flagellin.

Key words: Pseudomonas aeruginosa, flagellin, *fliC*, PCR