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

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 aeruginosa 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