

Molecular Profiles of Microbial Etiologic Agents Forming Biofilm in Urinary Tract Infections of Pregnant Women by RTPCR Assay

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Abstract : Urinary tract infection (UTI) represents the most commonly acquired bacterial infection worldwide, with substantial morbidity, mortality, and economic burden. The objective of the study is to characterize the microbial profiles of uropathogenic in the obstetric population by RTPCR. Study design: An observational cross-sectional study was performed at a single tertiary health care hospital among 50 pregnant women with UTIs, including asymptomatic and symptomatic patients attending the outpatient department and inpatient department of Obstetrics and Gynaecology. Methods: Serotyping and genes detection of various uropathogens were studied using RTPCR. Pulse field gel electrophoresis methods were used to determine the various genetic profiles. Results: The present study shows that CsgD protein, involved in biofilm formation in Escherichia coli, VIM1, IMP1 genes for Klebsiella were identified by using the RTPCR method. Our results showed that the prevalence of VIM1 and IMP1 genes and CsgD protein in E.coli showed a significant relationship between strong biofilm formation, and this may be due to the prevalence of specific genes. Finally, the genetic identification of RTPCR results for both bacteria was correlated with each other and concluded that the above uropathogens were common isolates in producing Biofilm in the pregnant woman suffering from urinary tract infection in our hospital observational study.

Keywords : biofilms, Klebsiella, E.coli, urinary tract infection

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