

Risk Factors for High Resistance of Ciprofloxacin Against Escherichia coli in Complicated Urinary Tract Infection

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Abstract : Objectives: To determine the risk factors for high resistance of ciprofloxacin in complicated urinary tract infections. Materials and Methods: It is an analytical study that was conducted in the department of Urology (Team 'C') at Institute of Kidney Diseases Hayatabad Peshawar from 1st June 2012 till 31st December 2012. Total numbers of 100 patients with complicated UTI was selected in the study. Multivariate analysis and linear regression were performed for the detection of risk factors. All the data was recorded on structured Proforma and was analyzed on SPSS version 17. Results: The mean age of the patient was 55.6 years (Range 3-82 years). 62 patients were male while 38 patients were female. 66 isolates of E-Coli were found sensitive to ciprofloxacin while 34 isolates were found Resistant for ciprofloxacin. Using multivariate analysis and linear regression, an increasing age above 50 ($p=0.002$) History of urinary catheterization especially for bladder outflow obstruction ($p=0.001$) and previous multiple use of ciprofloxacin ($p=0.001$) and poor brand of ciprofloxacin were found to be independent risk factors for high resistance of ciprofloxacin. Conclusion: UTI is common illness across the globe with increasing trend of antimicrobial resistance for ciprofloxacin against E Coli in complicated UTI. The risk factors for emerging resistance are increasing age, urinary catheterization and multiple use and poor brand of ciprofloxacin.

Keywords : urinary tract infection, ciprofloxacin, urethral catheterization, antimicrobial resistance

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