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Study of in Vitro Activity of Fluoroquinolones in Combination with Third Generation Cephalosporins on Clinical Isolates of Pseudomonas Aeruginosa

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Abstract

Background: Pseudomonas (P) aeruginosa is an opportunistic pathogen and is frequently responsible for nosocomial infections. The multi drug resistance of these P. aeruginosa isolates plays an important role in the colonization or infection of chronically hospitalized patients. Synergy is one of the most common reasons for using combination antimicrobial therapy. **Aims & Objectives:** To test the susceptibility of the clinical isolates of P. aeruginosa to antimicrobials like Ciprofloxacin, Ofloxacin, Ceftazidime and Cefoperazone and to investigate the possible synergy of their combinations. **Materials & Methods:** The study was conducted in Bacteriology Laboratory, Department of Microbiology, Govt. Medical College, Miraj. **Study Design:** In vitro study on 50 clinical isolates of P. aeruginosa. **Results:** Among the third generation cephalosporins, Ceftazidime (64%) exhibited maximum in vitro activity and among the fluoroquinolones ciprofloxacin (54%) exhibited maximum activity. Out of fifty clinical isolates of P aeruginosa, 17 were resistant to all four antimicrobials, 22 were susceptible to all four antimicrobials and 11 clinical isolates of P aeruginosa showed mixed susceptibility-resistant pattern. **Conclusion:** The in vitro combination of ciprofloxacin and Ceftazidime is the most effective combination against clinical isolates of P. aeruginosa.