

SUMMARY

Imipenem and cefoxitin induced resistance to beta-lactam antibiotics in *Pseudomonas aeruginosa*

Induction-mediated antagonism with disk diffusion method and selection of stably derepressed mutants with Macrodilution methods were investigated on *Pseudomonas aeruginosa*. For this purpose, 40 strains of *Pseudomonas aeruginosa* isolated in the Clinical Microbiology Laboratory of Gevher Nesibe Hospital of Erciyes University were selected. Using disk diffusion method, inhibition zones around the carbenicillin, piperacillin, aztreonam, cefoperazon, cefotaxime and ceftazidime disks were measured on two series of Mueller-Hinton agar plates containing imipenem ($0.02 \mu\text{g/ml}$) and cefoxitin ($0.02 \mu\text{g/ml}$) and on Mueller-Hinton agar without antibiotic.

A significant reduction of the inhibition zones around the beta-lactam disks on Mueller-Hinton agar with antibiotic compared on Mueller-Hinton agar without antibiotic was evaluated as induction-mediated antagonism.