

MecI mutation mutation in Staphylococcus aureus isolates resistant to beta-lactam antibiotics

Elnaz hajbaba*,

Abstract Nowadays, the bacteria s.aureus as a known pathogen in the hospital. resistance to antimicrobial drugs in s.aureus infections is more. Especially MRSA strains of these bacteria are gain often multiple antibiotic resistance. In the present research, we study emergence condition of strains of MRSA that resistant to cephalosporin in laboratory and the role of the mutant in gene mecI and attain this resistance. **Materials and method:** In 70 strains of s.aureus MRSA strains were detected to phenotypic methods and determine the presence of mecA gene. The resistance of the isolates were study to release of disc method for 6 antibiotics. the frequency of the blaZ gene in betalactamase resistant strains was determined by PCR and mutant of mecI and premecA gens in 10 ed strains of antibiotic resistance betalactam by sequencing PCR method. **Result:** the result of the study represent the high level resistance of clinical strains of s.aureus in this study to Meticillin and other antibiotics for betalactamase. It seem the production of betalactamase enzymes and antibiotic enzymatic hydrolysis plays more important role in the resistance accession and effect of these mutation in the regulator gen in expression mecA gen is negligable. **Key word:** Staphylococcus aureus , mecA , mecI , betalactam

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