



University of Zabol
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Title:

The prevalence of aminoglycoside modifying enzyme coding genes among
Pseudomonas aeruginosa strains isolated from patients hospitalized in Sistan region
hospitals

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Abstract

Pseudomonas aeruginosa is one of the most important causes of widespread infections in patients hospitalized in different hospital departments. One of the most important problems related to the treatment of *Pseudomonas* infections is resistance to aminoglycoside antibiotics. This research was conducted with the aim of investigating the abundance of genes encoding aminoglycoside modifying enzymes in *Pseudomonas aeruginosa* isolated from patients hospitalized in Zabul city hospital. From the DNA of 60 isolates of *Pseudomonas aeruginosa* isolated from patients hospitalized in Zabul Hospital, only 55 isolated were positive (91.66%) and 5 isolated (8.33%) were negative. The investigated related to *aadb* gene with 29 isolated (48.33%) and the lowest amount of genes related to *aac* and *aadA* gene with 10 isolated (10%). The result of this research showed that the presence of *aadb* gene with the amount of 29 isolates out of 55 positive isolates in *Pseudomonas aeruginosa* can increase the biological resistance and the possibility of resistant strains among Gram-negative bacteria

key words: *Pseudomonas aeruginosa*, aminoglycoside, Zabul, *aadb* gene, *aadA* gene