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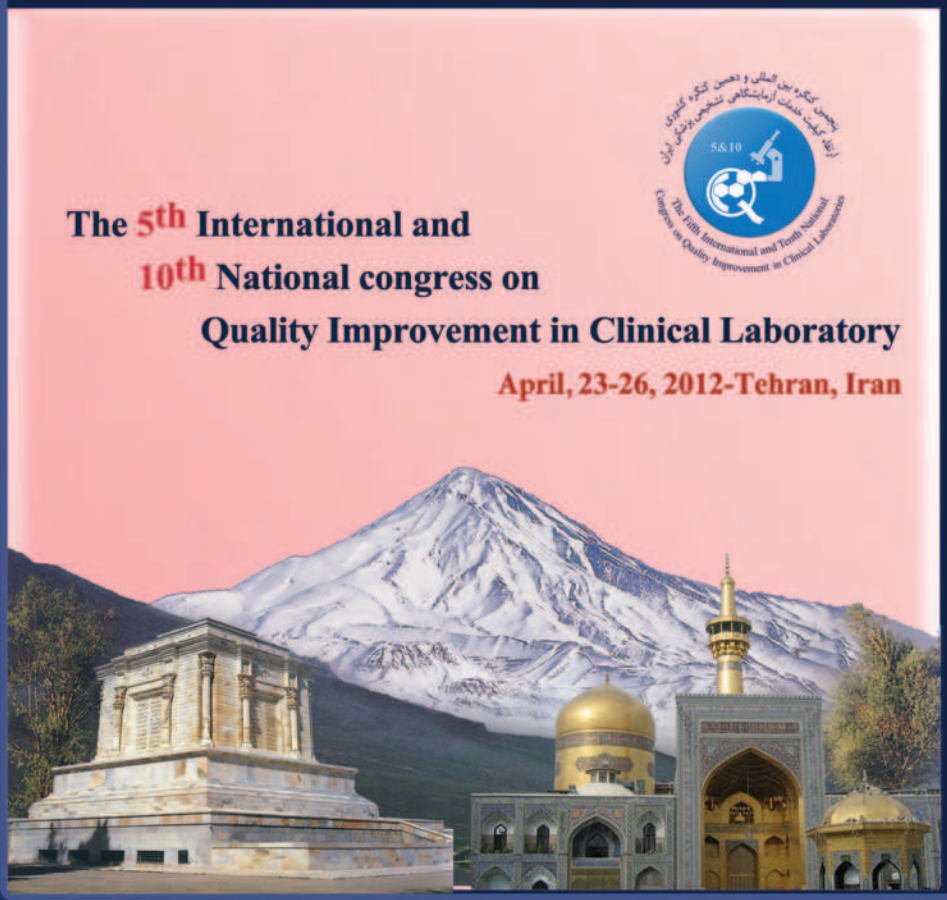
## CONGRESS ABSTRACTS




Iranian Association of Clinical Laboratory Doctors

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# Bacteriology

## Study of The Antimicrobial Effect of Allicin (an active component of garlic) on *Pseudomonas aeroginosa.*

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**Background and Aim:**
*Pseudomonas aeroginosa* is one of the most prevalent causes of nosocomial infections. This bacterium is highly resistant to most commonly used antibiotics. This has been lead to limited treatment options for this pathogen. This study was aimed to investigate the antimicrobial effect of allicin on *P. aeroginosa.*
**Methods:**
In this study 60 clinical isolates of *P. aeroginosa* and one standard strain (8821M) were included. Allicin was purified using semi preparative HPLC procedure. MIC of allicin was determined by microdilution method using serial dilutions of allicin (2-1024 µg/ml) in LB broth. The MBC was determined by subculture of the well showing no apparent growth in a Mueller-Hinton agar plate. All experiments were carried out in triplicate. The results were interpreted according to CLSI.
**Results:**
The MICs of allicin for isolates were 64 (3.33%), 128(35%) 256 (58.33%)512 (3.33%)µg/ml and the MBC values were 128 (21.66%), 256 (65%), 512 (13.33%)µg/ml.
**Conclusions:** The results showed that allicin can inhibit the growth of *P. aeroginosa*.

**Keywords:** *Pseudomonas aeruginosa*, Allicin, MIC, MBC

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