

The Significance of Mutation on Codon 305 of KatG on Emerging of Resistance Phenotype of *M. Tuberculosis*

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Background & Objectives: The aim of this study was to evaluate the role of mutations in codon 305 in katG gene in isoniazid resistant phenotype.

Methods: A region containing codon 305 of katG gene was amplified by PCR. GGC to GCC mutation was detected by BanI endonuclease. The results were compared with the results of drug susceptibility testing with Mycobacteria growth indicator tube (MGIT).

Results: 26 isolates were resistant to isoniazid by MGIT. Of these, 4 isolates had mutations in codon 305. Specificity of this endonuclease to identify resistant cases, was estimated to be 98%.

Conclusion: BanI endonuclease was able to detect 15% of cases resistant to isoniazid (4 of 26 resistant). BanI endonuclease has a high specificity to identify true sensitive strains.

Keywords: *Mycobacterium tuberculosis*; Isolates

