

Genetic Fingerprinting in the Study of Tuberculosis Transmission

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Background & Objectives: One of the potent tools to control *Mycobacterium tuberculosis* is molecular epidemiology techniques. RFLP-IS6110 standard Technique to genotyping *M. tuberculosis*. The aims of this study were to Identification the genetic diversity of *M. tuberculosis* population in markazi Province, and to recognition the manner of transmission of the disease in this region.

Methods: RFLP was analyzed among 42 isolates of *M. tuberculosis* deposited in the Mycobacterial Centre from Markazi province . DNAs isolated from these strains were restricted with Pvu II , hybridized with a PCR amplified DIG-labeled 245 bp IS6110 probe.

Results: Copy number higher than 17 however was not observed in any of the isolates studied., 72 percent of the isolates showed high copy number of IS6110, 13 per cent showed intermediate copy number, 10 percent showed low copy number, where as 5 percent of isolates lacked IS6110 element.

Conclusion: IS6110 DNA fingerprinting helped us to understanding epidemiological links between some TB cases and that this technique estimate from reactivation of latent infection transmission of the disease in Markazi Province.

Keywords: DR; IS6110; *Mycobacterium tuberculosis*; RFLP

