

Discrimination of *Mycobacterium tuberculosis* Spices with IS6110-RFLP Between Auspicious Patients

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Background & Objectives: *Mycobacterium tuberculosis* is the one of the harmful human pathogens in the world and now IS6110 – RFLP typing remains the international accepted standard and continues to provide new insights in the epidemiology of *Mycobacterium tuberculosis* infections. Genetic basement of IS6110 is because of different copies and places in different spices .

Methods: First stage in this technique is the selection of probe. The IS6110 DNA probe was prepared with amplification of 245 bp-fragment using PCR. This fragment was purified and labeled by Digoxigenin. After extraction of DNA do stage of RFLP then do stage of hybridation RFLP product with digoxigenin prob at last analizis the patern of bands with gel compaII.

Results: After recognizing patterns between different isolates, until now four common types of mycobacterium tuberculosis was detected . Of course, we will find more information about the other types after completing informational bank Until now we couldn't find any meaningful relation between antibiotic resistance and revealed genotypes. After examination between isolates, 4 pattern are common type 22rest of spieces are single type.

Conclusion: IS6110 was conserved in all of *Mycobacterium tuberculosis* strains and was usually present in high copy number. The stability of the polymorphism detected with IS6110 derived probes allow this methods to be used for the identification of clonal populations which is essential for studies of tuberculosis transmission. In addition RFLP analysis of *Mycobacterium tuberculosis* strain could distinguish between reactivation of ancient lesions and new infection. This will be value when compared with other characteristics such as level of virulence or antibiotic resistant pattern of *Mycobacterium tuberculosis* strains.

Keywords: *Mycobacterium tuberculosis*; IS6110; RFLP