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## MOLECULAR IDENTIFICATION OF *MYCOBACTERIUM TUBERCULOSIS* COMPLEX ISOLATES IN SMEAR POSITIVE CLINICAL SAMPLES BY RD-TYPING

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**Objective:** Tuberculosis has long been recognized as a zoonotic disease and is one of the most important threatening diseases of death yet. Rapid identification of the species is too important for fast and correct treatment. Therefore molecular identification is suitable method for this purpose. The aim of this study was identification of *Mycobacterium* isolates by RD-Typing technique in tuberculosis patients in Khorasan Razavi province of Iran.

**Materials & Methods:** PCR 16S rRNA and IS6110 were used for one hundred isolates followed by RD-Typing method (RD1, RD4, RD9 and RD12) were done to differentiate the complex members. PCR-RFLP of oxy-R gene performed to confirm differentiation between *Mycobacterium tuberculosis* and *Mycobacterium bovis*.

**Results:** PCR 16S rRNA and IS6110 amplified 543 and 245 bp which identified that all isolates are belonging to the genus *Mycobacterium* and *Mycobacterium tuberculosis* complex (MTBC) respectively. RD-Typing and PCR-RFLP revealed that, all isolates were detected *Mycobacterium tuberculosis* and none of them were *Mycobacterium bovis* or other species of the MTBC.

**Conclusion:** Our data suggest a low contribution of *Mycobacterium bovis* between human tuberculosis in the Khorasan Razavi province. This is either due to the widespread use of pasteurized milk and non-use of milk contaminated with *Mycobacterium bovis* or due to applying of control and eradication scheme for Bovine tuberculosis in the whole country.

### Biography

Marjan Jalalimehr 40 years old is graduated from Azad University of Iran majoring in Master of Microbiology. My thesis was in the field of Molecular Identification of *Mycobacterium* In Department Razi Vaccine & Serum Research Institute. In the section of Tuberculin and passed an experimental period working on this. I have continued my study and work on some related techniques in the field of *Mycobacterium* and I am still involved in this study in Razi institute.

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