

## Prevalence of latent tuberculosis in HIV positive patients: a comparison of tuberculin skin test and IgM antibodies against M.tuberculosis antigens

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### Abstract

**Background and Objective:** Diagnosis of latent tuberculosis infection (LTBI) by tuberculin skin test (TST) is accompanied with limitations. A few documented data exist regarding the performance of serology tests for LTBI diagnosis in HIV infection. The aim of this study was to determine LTBI prevalence and compare TST results and IgM antibodies against M.tuberculosis antigens (IAMA) for the diagnosis of LTBI in HIV infected individuals.

**Materials and Methods:** In this descriptive study, sixty two HIV infected subjects were chosen randomly from an addict treatment center in Ahvaz southwest Iran during 2008. The patients underwent TST, using 5 TU of purified protein derivative, and IAMA was measured. Data were analyzed using SPSS-15 software and Chi-Square test.

**Results:** From 62 studied cases, 34 (54.8%) had positive result for TST, whereas 6 (9.7%) had positive IAMA. LTBI was diagnosed in 37 (59.7%) by either TST or IAMA. Overall concordance between TST and IAMA was 45.2%. In subjects with positive test by either TST or IAMA, only 4.8% had positive test by either diagnostic procedure. Discordant results were found in 54.8% of subjects. Positive results for both diagnostic methods in subjects with above and below 200 CD4-cell/mm<sup>3</sup> did not show any significant differences.

**Conclusion:** This study showed that LTBI prevalence among HIV infected individuals among addict patients, in this region is higher than other parts of the world. Also TST is a useful test for LTBI diagnosis is preferable to IAMA method.

**Keywords:** Latent tuberculosis infection, Human immunodeficiency virus, IgM anti M.tuberculosis antibody, Tuberculin skin test, Ahvaz, Iran

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