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IASET

DETERMINATION OF IFN- γ IN SUSPECTED LATENT TB INFECTION (LTBI) PATIENTS AND ITS ASSESSMENT AS DIAGNOSTIC AND PROGNOSTIC MARKER AND ITS CORRELATION WITH THE ADA AND CRP

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ABSTRACT

Background: Latent tubercular infection is a condition in which a person is infected with Mycobacterium tuberculosis, but does not currently have active tuberculosis disease which should be detected for TB control and elimination because treatment of LTBI can prevent infected persons from developing TB disease and stop the further spread of TB. Therefore, in our present study we found the usefulness of Interferon-gamma (IFN-g) Release Assays (IGRAs) in the diagnosis of latent TB and correlation of ADA and CRP with the INF- γ in relation to our earlier research[13] done in the suspected latent TB infection (LTBI) patients.

Method: Whole blood is collected into each of the QFT blood collection tubes, which include a Nil Control tube, TB Antigen tube, and an optional mitogen tube. The tubes are incubated at 37°C as soon as possible within 16 hours of collection. Following a 16 to 24 hour incubation period, the tubes are centrifuged, the plasma is removed and the amount of IFN- γ (IU/mL) is measured.

Result: Serum IFN- γ is also estimated by TB Quantiferon GOLD test and compared with ANOVA test in all the three groups. We found IFN- γ as 0.46-+0.16mg/dl in Group A, 1.04-+0.28mg/dl in group B and 0.46-+0.15 in Group C.

Conclusion: T-cell interferon-gamma release assays (IGRAs) are more specific and probably more sensitive than the tuberculin skin test (TST) that is unaffected by BCG vaccination for the diagnosis of latent tuberculosis infection (LTBI). The role of these new blood tests in this patient population is therefore of considerable interest. The two test of IGRAs i.e. ELISA has a similar sensitivity to the TST, whereas the ELIS pot is more sensitive.

KEYWORDS: Interferon, Tuberculin, Latent, Immunosuppression, Mycobacterial