

PERFORMANCE OF AN INTERFERON- γ TEST IN PATIENTS WITH SUSPICION OF TB IN A HIGH TB AND HIV INCIDENCE SETTING

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Background: It is reported that INF- γ tests perform well for the diagnosis of TB infections HIV-infected individuals in low TB incidence settings.

Aim: to describe the performance of an INF- γ based test (Quantiferon TB In-Tube–Gold, QFT-ITg) in adults with culture-positive TB with and without HIV.

Methods: Cross sectional study. Adults with cough >3 weeks duration attending 4 hospitals in Abuja, Nigeria. Smear microscopy, Bactec culture, HIV and CD4 counts were ascertained.

Results: 69 (37%) of 187 patients were culture-positive and 101 (54%) were HIV-positive. Among the 98 HIV-positive patients with sputum culture, 12 (12%) had smear positive TB (≥ 2 positive-smears or one positive-smear with positive culture, SM_{pos}TB), 11 (11%) had negative-smears with positive-culture (SM_{neg}TB) and 75 (76%) were smear and culture-negative (SM_{neg}C_{neg}). Among HIV-negative patients, 28 (33%) had SM_{pos}TB, 19 (22%) SM_{neg}TB and 39 (45%) SM_{neg}C_{neg} ($p < 0.01$).

Seven and 3 of the 12 HIV-positive patients with SM_{pos}TB had positive and indeterminate QFT-ITg, compared to 6 and 0 of the 11 patients with SM_{neg}TB and 15 and 19 of the 77 patients with MS_{neg}C_{neg}. Among HIV-negative patients, 22 and 4 of the 28 patients with SM_{pos}TB had positive and indeterminate QFT-ITg, compared to 11 and 1 of the 18 patients with SM_{neg}TB (NS) and 21 and 3 of the 39 patients with MS_{neg}C_{neg}. Indeterminate results were more frequent among HIV-positive patients ($p < 0.01$). Patients with CD4 counts < 100 had more indeterminate/negative responses than patients with higher CD4 counts.

Discussion: A high proportion of the patients were HIV-positive and had low CD4 counts. HIV-positive patients were more likely to have smear-negative TB or to be smear, culture-negative. Smear-negative, culture-negative patients were more likely to have indeterminate QFT-ITg results if they were HIV-positive. Patients with TB and HIV were more likely to have negative/indeterminate QFT-ITg if the CD4 count was < 100 .