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Abstract (oral session)

**Predictive value for six-month tuberculosis (TB) occurrence of systematic interferon gamma releasing assay (IGRA) testing in asymptomatic antiretroviral therapy (ART)-naive HIV-infected patients in a European TB low-burden country**

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Background: TB-infection in HIV-patients raises both morbidity and mortality. Treatment for latent tuberculosis infection (LTBI) prevents TB-disease occurrence. As screening is based on immune memory responses against mycobacteria, HIV-infection impairs usual diagnosis tests: Tuberculin Skin Test (TST) and Interferon Gamma Releasing Assays (IGRAs). Objective: To evaluate the accuracy of those tests and/or their association for LTBI diagnosis in HIV-patients from a TB low-burden country, we conducted a national prospective study comparing TST, QFT-G-IT® and T-Spot-TB® in HIV-infected French patients without active TB and ARV naive. Methods: ARV naïve-HIV-patients without active TB of 30 French HIV-clinical centers were prospectively included and tested for LTBI both with TST, T-Spot-TB® and QFT-TB-G-IT® and followed-up 6 months. Tests were defined as positive for TST >10 and 5 mm, positive, negative or indeterminate for IGRA as specified by manufacturers. Patient's outcome: active TB, LTBI treatment and/or ARV initiation was collected after 6 months. Results: 415 patients were tested by both IGRAs and TST for LTBI [median age 38.0 yrs [IQR 31-45], 74.2% male, HIV CDC A for 94.2% and C for 2.7%, median CD4 count 466/mm3 [IQR 337-615], 6.4%<150/mm3, 71.6%>350/mm3, median HIV1 VL 4.5 copies/ml [3.6-4.9], 60.6% declared BCG vaccination and 51.4% came from TB high-burden countries. 56(13.5%) patients had one positive IGRA (43 QFT®, 34 Tspot®, 22 both), 66(15.9%) had TST>5mm (37 TST>10mm) with poor concordance. Ten (2.4%) and 23 (5.5%) patients had indeterminate QFT® or Tspot® respectively, with no difference according to CD4 level. According to IGRAs results, LTBI prevalence was 13.5%. Fourteen (25.5%) of these 56 patients received TB prophylaxis, 18(32.7%) initiated ARV in a median of 53.5[33.0 - 112.0] days after inclusion. Eight patients developed TB within 6 months, 7 had at least one positive IGRA (5 had both) and the later (CD4 114/mm3) had negative QFT® and TST, indeterminate T-spot®. TB RR at 6 months was 44.0 95%IC[5.5;351.0] when one IGRA was positive. When TST was positive IGRAs NPV for TB at 6 months was 100%. PPV of IGRAs and TST will be presented. Conclusion: In French HIV-clinical centers, IGRA screening for LTBI recorded a 13.5% prevalence rate in ARV naive patients, and predicted a RR 44.0 for active TB within 6 months. As both IGRAs and TST have been tested we will be able to propose a diagnostic strategy according to CD4 and TST results.