

DIAGNOSIS OF LATENT TUBERCULOSIS INFECTION IN PATIENTS WITH HEMATOLOGICAL MALIGNANCIES: USE OF THE NEW IFN- γ ASSAYS.

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Aims: Patients with hematological malignancies and latent tuberculosis infection (LTBI) are at increased risk of tuberculosis (TB). These high-risk patients can have falsely negative tuberculin skin test (TST) results and the IFN- γ Assays QuantiFERON-TB Gold In tube (QFT-G IT) and T-SPOT.TB (TS.TB) hold promise to provide a more accurate diagnosis of LTBI.

Methods: In a prospective study, 56 patients with hematological malignancies (mean age 60.4 \pm 14.7 years) have been blindly tested by using QFT-G IT, TS.TB and TST at the time of diagnosis and during chemotherapy.

Results: 2 patients were excluded due to high background levels in QFT-G IT. At enrolment 3/54 (5.7%), 12/54 (22.2%, p=0.004 vs TST) and 11/54 (20.4%, p=0.008 vs TST) patients tested positive with TST, TS.TB and QFT-G IT, respectively. The IFN- γ Assays showed a high overall agreement (κ =0.721). During chemotherapy, most QFT-G IT (17/20, 85%) and TS.TB (19/20, 95%) results were unchanged, while TST turned to negative in 1 of the 2 patients initially positive.

Discussion: The IFN- γ assays produced significantly more positive results compared to the TST, suggesting that a significant proportion of patients with hematological malignancies may have an LTBI unrecognized by the TST. Moreover, most results of the blood tests are not affected by ongoing chemotherapy.