

PRELIMINARY RESULTS OF QUANTIFERON TB GOLD ASSAY IN THE NATIONAL REFERENCE LABORATORY FOR MYCOBACTERIA IN ATHENS

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Aim: The QuantiFERON-TB Gold (QFT) is a recently developed method for the diagnosis of latent TB, overcoming the specificity defects of Tuberculin Skin Test (TST). This new method is based on the measurement of interferon- γ , released from T-cells sensitized with mycobacterial antigens (ESAT-6 and CFP-10), when T-cells are restimulated by the same antigens. We evaluated QFT in blood samples from individuals tested in our laboratory for various reasons, as confirmation of diagnosis of latent TB, contact investigations and routine screening of immigrants.

Material/methods: We evaluated QFT in blood samples from 118 individuals, being aware of their medical history. QuantiFERON TB Gold assay was performed according to instructions.

Results: 56/188 (54,2%) of individuals tested were native Greeks, while 54/118 (45,8%) were immigrants. Mean age was 30,2 years. None of the individuals was immunosuppressed, R_o positive or culture positive. 108/118 (91,5%) had been administered BCG vaccination, 115/118 (97,5%) were TST(+) with diameter >10mm, while QFT(+) results were provided in 34/118 (28,8%).

Concerning BCG vaccination, in 108 vaccinated individuals, 107/108 (99,1%) were TST(+) and 29/108 (26,9%) were QFT(+). However, in the 10 BCG non vaccinated, 8/10 (80%) were TST(+) and 5/10(50%) QFT(+).

Regarding nationality, in total of 65 native Greeks tested, BCG vaccinated were 57(89%), TST(+) were 61/64 (95,3%) and QFT(+) 22/64(34,4%). In the 54 immigrants, however, 51(94,4%) were BCG vaccinated, while TST(+) were 54/54 (100%) and QFT(+)12/54 (22,2%).

It is interesting that 52/118 cases studied concerned contact investigation, where QFT(+) were 19/52 (36,9%). BCG administered were all the 52 (100%), TST(+) was in 18/52 (34,6%) and QFT(+) in 19/52 (36,5%).

Conclusions: It is difficult to safely evaluate and validate QFT because of our quite limited data. However, it is clear that QFT potentially diagnosed almost 30% of latent TB among BCG vaccinated individuals and at least 50% among non-BCG vaccinated. Additionally, QFT was closer correlated with TST in non-vaccinated than in BCG vaccinated individuals (QFT 50%, TST 80% versus and 26,9% and 99%, respectively).