
Original Article

**COMPARISON STUDY OF SENSITIVITY OF
QuantIFERON® TB GOLD PLUS WITH EXISTING IGRAS
IN THE PATIENTS WITH ACTIVE PULMONARY TUBERCULOSIS**

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Abstract [Object] Sensitivity of QFT-Plus, QFT-3G and T-SPOT were compared using blood specimens from the same subjects with active pulmonary tuberculosis (TB).

[Method] Active 77 TB patients (79.9 years old (y/o); group A) were tested with QFT-Plus, QFT-3G and T-SPOT. Group B, <80 y/o; Group C, ≥80 y/o; Group D, CD4 count <200/μL; Group E, CD4 count ≥200/μL.

[Results] Group A: QFT-Plus (94%) and QFT-3G (91%) were significantly ($p=0.001$, $p=0.006$, respectively) higher than T-SPOT (74%). Group C: QFT-Plus (93%) and QFT-3G (90%) were significantly higher ($p=0.003$, $p=0.018$, respectively) than T-SPOT (72%). Group E: QFT-Plus (98%) and QFT-3G (98%) were significantly higher ($p=0.001$) than T-SPOT (78%). Indeterminate/invalid rates of QFT-3G and QFT-Plus were lower tendency ($p=0.056$) than T-SPOT in Group E.

[Conclusion] This is the first 3-way assay comparison

of IGRAs in active TB. QFT-Plus was significantly more sensitive, regardless of advanced age ≥80 y/o and lower CD4 count. QFT-Plus can be useful for the diagnosis of TB infection in all subjects.

Key words: Active pulmonary tuberculosis, QFT-Plus, QFT-3G, T-SPOT®, TB, CD4, CD8

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A CASE OF TUBERCULOUS BRAIN ABSCESS IMPROVED BY OMMAYA RESERVOIR

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Abstract A 62-year-old woman with nephrotic syndrome was treated by oral corticosteroid. She came to a hospital with fever and numbness in her right hand and face. Brain MRI showed a mass in her thalamus and chest CT showed a lot of nodular shadows with random pattern in her both lung. Because of a positive smear for acid fast bacteria (AFB) and TB-PCR result, she was admitted to our hospital for treatment. We diagnosed pulmonary tuberculosis, miliary tuberculosis, and tuberculous brain abscess and started to treat her with antituberculous drugs. Although her lung lesions improved, her intracranial lesion gradually increased in size. As her mental status got worse, we performed puncture drainage of abscess in her thalamus. Although her illness

temporarily improved, the abscess grew up again. Then we used an Ommaya reservoir to remove fluid, her symptoms and imaging findings improved and it did not recur.

Key words: Tuberculous brain abscess, Miliary tuberculosis, Ommaya reservoir

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Field Activities

STRENGTHENING THE LINK BETWEEN
GOVERNMENT AND NON-GOVERNMENT ORGANIZATIONS
IN TUBERCULOSIS CONTROL IN THE URBAN POOR OF
METRO MANILA, PHILIPPINES:
A RETROSPECTIVE DESCRIPTIVE STUDY

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Abstract [Objective] To assess the effects of engagement by GOs and NGOs in enhancing access to DOTS facilities and in increasing case finding of TB in the urban poor areas in the Philippines. [Methods] A retrospective descriptive study was conducted to analyze pre- and post-intervention data on DOTS access in two urban poor communities. Data from 2007 to 2012 were collected from participating GOs and NGO DOTS facilities and NGO referring facilities using the National TB Control Program (NTP) monitoring tool. [Results] Attendance rate of presumptive TB in total increased from 1.0% to 1.3% ($p < 0.01$). Likewise, the notification rate of new smear positive PTB increased from 152 to 167/100,000 ($p < 0.01$). Also, the notification rate of new smear negative /clinically diagnosed PTB increased from 103 to 316/100,000 ($p < 0.01$). The percent contribution of NGO DOTS facilities in the number of presumptive TB significantly increased from 25% to 30% ($p < 0.001$). It slightly decreased from 28% to 27% in new smear positive PTB ($p = 0.737$) and it declined from 46% to 35% in new smear negative/clinically diagnosed PTB ($p < 0.001$). CHVs notified 3% of the total TB cases. Treatment success rate of new smear positive PTB ranged from 82% to 92%. [Discussion] It is clear that the increase in the notification rate of new smear positive PTB with maintained high success rate is satisfactory result of the project obtained by enhanced collaboration of NGOs with GOs. However, considering high BCG vaccination coverage and presence of commonly observed symptoms and without chest x-ray examination, over-diagnosis of pediatric PTB remained highly possible in contact investigation. [Conclusion] The increase in the number of people with TB symptoms examined and TB notifications showed that GO–NGO intervention model was able to improve access to TB services in the urban poor areas in the Philippines. Thus, the engagement of NGOs has complemented the work of GOs in TB control activities to reach more people in the urban community.

Key words: Tuberculosis, Philippines, Urban poor areas, Case finding