## LETTERS TO THE EDITOR

# Tuberculin sensitivity testing in human immunodeficiency virus—infected patients

DOI: 10.12809/ hkmj134161 To the Editor—The recent report on tuberculin sensitivity testing in human immunodeficiency virus (HIV)—infected patients by Lin et al<sup>1</sup> is very interesting. They concluded that "The high risk of tuberculosis disease during the early period of antiretroviral therapy supports early use of tuberculin sensitivity testing". In fact, this finding confirms the previous report by Elzi et al.<sup>2</sup> Nevertheless, there are some specific points to be considered. First, the diagnostic properties of different test assays might differ. The corresponding physician-in-charge has to select the test with good diagnostic property.

Second, there are many conditions that can lead to a false negative, including immunosuppression and military tuberculosis.<sup>4</sup> These conditions have to be kept in mind in any cases with negative results.

Beuy Joob, MD

Email: beuyjoob@hotmail.com

Sanitation 1 Medical Academic Center, Bangkok, Thailand

Viroj Wiwanitkit, MD

Joseph Ayo Babalola University, Nigeria

#### References

- 1. Lin AW, Chan KC, Chan WK, Wong KH. Tuberculin sensitivity testing and treatment of latent tuberculosis remains effective for tuberculosis control in human immunodeficiency virus—infected patients in Hong Kong. Hong Kong Med J 2013;19:386-92.
- 2. Elzi L, Schlegel M, Weber R, et al. Reducing tuberculosis incidence by tuberculin skin testing, preventive treatment, and antiretroviral therapy in an area of low tuberculosis transmission. Clin Infect Dis 2007;44:94-102. cross ref
- 3. Sultan B, Benn P, Mahungu T, et al. Comparison of two interferon-gamma release assays (QuantiFERON-TB Gold In-Tube and T-SPOT.TB) in testing for latent tuberculosis infection among HIV-infected adults. Int J STD AIDS 2013;24:775-9. cross ref
- 4. Lee YM, Park KH, Kim SM, et al. Risk factors for false-negative results of T-SPOT.TB and tuberculin skin test in extrapulmonary tuberculosis. Infection 2013 Aug 14. Epub ahead of print. cross ref

# Authors' reply

To the Editor-We thank Joob and Wiwanitkit for their comments. In contrast to the study by Elzi et al,1 our study was carried out in a single centre, where patients were followed up longitudinally by the same team of HIV physicians, in a region with an intermediate tuberculosis (TB) burden. Moreover, the coverage of annual tuberculin sensitivity testing (TST) in our study was high (89%), and all of our study subjects were on antiretroviral therapy, which is well known to be the major factor responsible for reducing the risk of TB in HIV infection. Therefore, our study provided strengthened evidence on the effectiveness of treatment of latent TB infection as identified by annual TST in HIV-infected patients on antiretroviral therapy. The use of interferon-gamma release assays is a potential breakthrough in HIV disease. As mentioned in our article, however,

for the purpose of treatment of latent TB infection a recent meta-analysis did not show consistently improved sensitivity with such testing when compared with TST.<sup>2</sup> We nevertheless look forward to future studies on their role in patients who are otherwise unable to receive TST, or when used as an additional test.

Ada WC Lin, MB, BS, FHKAM (Medicine)

Email: adalinwc@dh.gov.hk

Kenny CW Chan, MB, BS, FHKAM (Medicine)

WK Chan, BNurs, MNurs

KH Wong, MB, BS, FHKAM (Medicine)

Special Preventive Programme, Centre for Health Protection, Department of Health, Kowloon Bay Health Centre, 9 Kai Yan Road, Kowloon Bay, Kowloon, Hong Kong

### References

- 1. Elzi L, Schlegel M, Weber R, et al. Reducing tuberculosis incidence by tuberculin skin testing, preventive treatment, and antiretroviral therapy in an area of low tuberculosis transmission. Clin Infect Dis 2007;44:94-102. cross ref
- 2. Cattamanchi A, Smith R, Steingart KR, at al. Interferon-gamma release assays for the diagnosis of latent tuberculosis infection in HIV-infected individuals: a systematic review and meta-analysis. J Acquir Immune Defic Syndr 2011;56:230-8. cross ref