Reviewer's report

Title: Association between Tuberculin Skin Test Result and Clinical Presentation of Tuberculosis Disease

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Reviewer: Rebecca R Prevots

Reviewer's report:

This manuscript describing the relationship between TST and clinical presentation is intriguing and worthwhile. The 18 years of data and the comprehensive analysis add to the strength of this paper and its merit as an important contribution to the field. The approach of understanding TST reactivity in relation to clinical presentation is an important one and a novel contribution to the field. Multinomial logistic regression was used to calculate the association between the categories of TB reactivity and clinical presentation (military, extrapulmonary, pulmonary, cavitary). Multivariate logistic regression was used to calculate the odds of having AFB positive sputum among those with pulmonary disease.

The interaction between HIV status and place of birth (foreign vs. US born) in relation to the odds of having cavitary disease given high TST reactivity is intriguing. The negative association of high TST reactivity and lower odds of cavitary disease is surprising; the authors come up with some reasonable hypotheses to explain these findings. Overall, this analysis raises some important hypotheses with regard to mechanisms of immunity to TB as well as TST reactivity that could be further explored.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests