Reviewer's report

Title: Use of a T cell interferon gamma release assay in the investigation for suspected active tuberculosis in a low prevalence area

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Reviewer: Oriol Manuel

Reviewer's report:

Comments to the author

Winqvist et al. present a study looking at the predictive value of the Quantiferon-TB Gold assay for the diagnosis of active tuberculosis in a low incidence country. The authors found that the Quantiferon assay had a modest predictive value for this indication, a finding that concurs with the existent literature. Of note, when restricted to patients with extra-pulmonary disease, the predictive value of the test was somewhat higher.

The article is well-written, concise and the conclusions reflect the presented data. Although I found the study interesting, my sole concern involves the originality of the data, since other articles have already presented similar results. I expose other comments below.

Major compulsory revisions

None.

Minor essential revisions

Abstract

Since data regarding BMI and leukocyte count are not very relevant (see below), I would suggest to remove it from the abstract.

Discussion

The discussion needs to describe what other similar studies have found and compare them to the present study.

Table 1. Mb Down: I was not aware that Down’s syndrome is considered to be an immunosuppressive condition. Please explain.

Please add a reference regarding the incidence of TB according to the country of origin.

Discretionary revisions

Abstract and Results (page 3, line 2 and page 11, line 1)

The authors looked at factors associated with the QFT-G result. The only significant factors associated with a negative QFT-G result were a lower BMI and a higher leukocyte count. Although statistically significant, it is difficult to extract a
clinical meaning for these findings. It would have been more interesting to look for a potential association to lymphopenia, a factor that has been associated with a negative result of the Quantiferon assay in liver transplant candidates and in HIV positive individuals.

There is a new version of the QFT-G on the market since 2005, the QFT-G In Tube, who is simpler to perform and already contains the antigen TB7.7. The authors may want to explain why they choose the older version, and what potential advantages could found if they would have used the new version of the assay.

I found the discussion about interferon release and leprosy (page 12, 3rd paragraph) not really interesting. I suggest to rewrite it focusing on TB.

**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 received free of charge the Quantiferon test from Cellestis Ltd. for a study that I conducted in 2006-7