Reviewer's report

Title: IP-10 response to RD1 antigens can be a useful biomarker for monitoring tuberculosis therapy

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Reviewer: Roland Diel

Reviewer's report:

The study of Kabeer et al. is a very interesting contribution to the question how successful therapy of active TB disease can be measured by laboratory markers.

Unfortunately, the authors are comparing data from 18 people with the selected peptides and data from 27 with QFT plasma. With such small numbers it is improper to do this and in my opinion the comparative analysis (of QFT plasma vs selected peptide plasma) should at least have been limited to the 18 people where both were tested. Then the answer from this would be more relevant

With respect to the low number of participants in general the authors do not reveal why only 27 TB patients could be included from the centers for a whole year and why RD1 peptide specific results were only available for 18 of them. Thus, it remains unclear whether there is a selection bias or not. The authors should make an announcement on this crucial point.

The other issue with the selected RD1 peptides (which are just sections of ESAT-6 and CFP-10) is that the authors use a higher cut-off for them (0.57 IU/ml) than is used for the peptides covering the whole antigens that are used in QFT (0.35 IU/ml). You would think that as the authors do not use as many antigens, the response would be lower in magnitude and that the cut off should be lower. It would be interesting to see the results comparing the 0.35 IU/ml cut-off also for RD1 peptides in addition to avoid the idea that some of the authors´ conclusions could simply be artefacts of the way the different cut-offs have been chosen.

A minor point: Because a normal distribution cannot be assumed in this setting the t-test is inappropriate here. Thus, the non-parametric Wilcoxon signed-rank test should be used instead to compare the continuous variables at the time of diagnosis and at therapy completion.

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