Reviewer's report

Title: Human T-lymphotropic virus type 1 (HTLV-1) prevalence and quantitative detection of DNA proviral load in a group of individuals originating from endemic areas and living in Italy.

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Reviewer: steven jacobson

Reviewer's report:

General
Vitone et al. reported that HTLV-I infection is found and mainly confined to African immigrants in Italy. Although the author said in discussion, the fact has been reported from several groups. The author also states that SYBR Green real time PCR approach is useful for screening in the diagnostic of HTLV-I infection and monitoring proviral load during the course of infection. The usefulness of this approach has been reported from the same group examining HIV infection and it was also published from the other group even in HTLV-I infection.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
The western blot profiles need to be shown. It seems that electrophoresis agarose gel analysis shows slightly positive signal as a specific band for HTLV-I (117bp) even in HTLV-I negative samples (Figure 1). How do the authors interpret this? Therefore, it would be interesting to know the agarose data of HTLV-I indeterminate patient samples and the other HTLV-I positive patient sample (Patient No7).
As shown Figure 1, there are clear bands that are longer than the amplicon for HTLV-I in HTLV-I negative samples (Lane 1-3) that are not there in HTLV-I positive samples (Lane 4-7). What does the band indicate.
The author states in discussion that SYBR Green real time PCR approach is a high sensitivity and specificity. There are some reports that indeterminate WB patients sometimes show positive for PCR. Then, it can be said that PCR methods is highly sensitive. However, all indeterminate WB patients in this study were negative by PCR whereas all positive WB patients were positive by PCR. this would indicate that, if WB results represent real infection, the author can say SYBR Green real time PCR approach is a highly specific but it is difficult to say anything about sensitivity.
Furthermore, the real time PCR was performed just on ELISA positive or borderline samples in this study. When the sensitivity and specificity of the PCR approach in comparison to serological methods are discussed, the PCR data on ELISA negative samples are also needed.
The authors need to include references to the studies in the literature in which seroindeterminates were found that were HTLV-I PCR positive.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)
What next?: Reject because too small an advance to publish

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

'I declare that I have no competing interests