Reviewer's report

Title: Predictors of Suboptimal CD4 Response among Women Achieving Virologic Suppression in a Randomized Antiretroviral Treatment Trial, Africa

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Reviewer: Anchalee Avihingsanon

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Asmelash et al. analysed the predictors of suboptimal CD4 Response (SCR) among women achieving virologic suppression in a randomized Antiretroviral Treatment Trial in 7 African countries. The authors concluded that after starting HAART, 11% of women with virologic suppression through 48 weeks experienced SCR. Baseline factors independently associated with increased odds of SCR were older age, lower HIV-1 RNA, positive HBsAg, and site location.

Major comments
1. In the second paragraph of introduction part: authors stated that there were no clear predictors of discordant responses. In fact, increasing age, injecting drug use, hepatitis coinfection, and lower baseline CD4 cells and HIV RNA have been associated with discordant response. please explain and look at more references ie J Infect Dis 2001;183:1290, Lancet 2000:356:1800, AIDS Res Hum Retroviruses2006:22(3):222
2. In result section, other factors were not significantly associated with SCR (P>0.05). Please specific ie using boosted PI was associated with better immune response or not
3. Table 1: The proportions/percentages in the table have been presented by categorical grouping, and not by response group. Could this please be changed to make it easier for readers to understand? We want to know about the percentage of subjects in each response group who have a particular attribute represented by the categories which are described. Could the authors also confirm that when there are less than or equal to five subjects in any of the cells for any of the groupings that a 2-sided Fisher's exact test has been used, and not a Chi-square test.

Minor comment
1. In discussion part: please add reference for "Some studies have shown HCV and IDU to be related to level of CD4 response while on therapy"
2. Since antiHCV was not available, what is the percentage of HCV coinfection in African women and how common of injecting drug user in this population.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I have no any conflict interests