



Oral Communication

Session/Topic: Immunological response under cART and co-infections

N. Title:

OC 19 Value of CD4 count nadir and of time since occurrence of CD4 count nadir to predict viral rebound in a selected population who underwent a therapy switch after achieving viral suppression

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Abstract:

Background: Maximum CD4 drop (CD4 nadir) before starting ART has been often indicated as a marker of higher risk of treatment failure and clinical progression. Nevertheless, in people who are selected for ART simplification/toxicity switch after achieving a HIV-RNA ≤ 50 copies/mL, the role of CD4 count nadir has not completely been investigated. Moreover, it is unclear whether the length of time since the date at which the CD4 count nadir was first observed might also predict the risk of subsequent rebound.

Methods: We analyzed data of patients enrolled in the Icna Foundation Study cohort. The baseline for this analysis was at the time of the first treatment switch observed after two consecutive HIV-RNA ≤ 50 c/mL. Viral rebound (VR) after the treatment switch (defined at the time of the first of 2 consecutive HIV-RNA > 200 copies/mL) was the end-point of the analysis. Risk of VR related to CD4 nadir and other factors measured at baseline was assessed by fitting a Poisson regression model.

Results: Overall, 2,505 patients were included in the analysis. The main characteristics of patients are reported in table 1.

The association among CD4+ count nadir and risk of VR is reported in Table 2. As shown, even at very low (< 100 cell/mm³) strata, CD4+ nadir was not significantly correlated with the risk of VR both at unadjusted analysis and after adjusting for a number of potential confounders. Moreover, time from CD4 nadir of ≥ 41 months vs. < 16 months was associated with a reduced risk of VR only after adjustment for: time from HIV first diagnosis, AIDS diagnosis, psychological disorders diagnosis, HCV status, HBV status (table 3, model C) and marginally associated after adjustment for: age, gender, nationality, education, employment, mode of HIV-transmission, current calendar year (model B), but not after further controlling for duration of suppression before switch (model D).

Most recent calendar year of switch and use of single tablet regimen (STR) after switch were both associated with reduced risk of VR, and greater number of viral blips > 50 c/mL detected over the 4 years after switch was associated with an increased risk of VR at unadjusted analysis, but only calendar year (RR:0.89 per more recent; 95% CI: 0.83-0.96, $p=0.003$) and number of blips (RR:2.18 per one additional blip, 95% CI: 1.81-2.64) remained associated after adjustment. Switching to dual-therapy regimen was not significantly associated with the risk of VR.

Conclusions: In our selected population who were identified for a treatment switch after some time spent with a suppressed viral load, the value of CD4 count nadir and of the time since the nadir has occurred to predict VR > 200 copies/mL appears to be limited.