Oral presentation

O422 Do the disadvantages of late initiation of HAART persist in patients achieving and maintaining viral load (VL) suppression for a year on HAART?

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Purpose of the study

Starting HAART at low CD4 counts may be associated with impaired CD4 recovery. However, the factors associated with late presentation and delay of HAART may confound any associations with CD4 response. We studied CD4, VL and clinical outcomes over 4 years of HAART in subjects from the UK CHIC Study who maintained VL suppression for the first year on HAART, stratified by pre-HAART CD4.

Methods

We identified ARV-naïve adults starting HAART from 1998–2006 (NRTI+NNRTI or PI/r) with pre-HAART CD4 <350 cells and VL >500 cp/ml. Patients were excluded if they had <1 year follow-up, they did not suppress VL, they experienced VL rebound in the first year, or they stopped HAART. CD4 rises were compared using Kruskal-Wallis tests in those starting with pre-HAART CD4 of <100 (group 1), 101–200 (group 2) or >200 (group 3) cells; VL rebound (>1000 cp/ml) and progression to new AIDS/death were compared using Kaplan-Meier analysis.

Summary of results

3,491 of 6,904 ARV-naïve adults starting HAART were eligible. Most were male (74%), white (56%), MSM (54%) with a median age of 36 years. Median follow-up was 3.6 (range 1, 9) years after HAART. 1,116 (32.0%), 1,186 (34.0%) and 1,189 (34.1%) were in groups 1, 2 and 3, respectively. 3,029 (87%) started an NNRTI (mainly EFV) and 13% a PI/r-based regimen (mainly LPV). Whilst the median CD4 count was significantly lower in group 1 in all 4 years, the median CD4 increase from pre-HAART was significantly higher in group 1 than in groups 2/3 after 2, 3 and 4 years (median CD4 increases at year 4 of 345, 320 and 333 cells in groups 1, 2 & 3). The cumulative risk of VL rebound at years 2, 3 and 4 was 6.9, 11.9 and 15.5%, with no significant difference across groups (p = 0.10, log-rank test). Group 1 had higher rates of clinical progression than group 3 at 2 years (1.8% vs. 0.8%); this effect persisted over the next 2 years (RHs of 2.10, 1.75 and 2.23 in years 2, 3 and 4). Whereas group 2 had a higher rate of clinical progression than group 3 in year 2 after HAART (1.4% vs. 1.8%), this effect weakened (RHs of 1.76, 1.21 and 0.93 in years 2, 3 and 4).

Conclusion

Individuals starting HAART at CD4 counts ≤100 cells who maintain VL suppression for a year have lower median CD4 counts by 4 years after HAART. However, CD4 increases in this group are greater than those in patients starting at higher CD4s, suggesting that any disadvantage may be lost over time if patients can maintain VL suppression.