

No Benefit from Early Treatment in Primary HIV-Infection?

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Background:

The scientific data on an optimal management of primary HIV-infection are inconclusive. There is only poor evidence that early treatment of primary/acute HIV infection can reduce the viral load set point or improve cellular immune functions.

Methods:

Prospective analysis of two national cohorts: Prime-DAG started in July 2001 with a focus on early treatment and Ac-DAG started in January 2003 with a focus on non-treatment of primary HIV-infection. Criteria for primary HIV-infection were either a negative ELISA coupled with a positive viral load or a documented western blot with less than 5 bands. CD4 cell counts and viral load in untreated patients (pts) 12 months after seroconversion were compared with treated pts 12 months after treatment stop.

Results:

200 (191 male) cases of primary HIV-infection were included. In 144 patients (pts), treatment was started immediately, 56 pts remained untreated. In pts without treatment, the median first measured viral load was 240,000 cop/ml versus 500,001 cop/ml in pts initiating treatment ($p < 0.001$). The median CD4 counts were 629/ μ l and 453/ μ l, respectively ($p = 0.001$). 100/144 treated pts stopped treatment after a median time of 9.5 months. At this time point, VL was below detection in 82% of these pts (range: $< 49 - 7.220$ cop/ml). The median CD4 count was 799/ μ l. 12 months after treatment stop ($n = 44$) the median viral load was 38,056 cop/ml (range: $< 49 - 492,000$ cop/ml). In two pts viral load was still below detection. The median CD4 count was 538/ μ l (range: 183 – 1138/ μ l). There was a median CD4 increase of +60/ μ l in comparison to the first CD4 cell count (baseline).

In untreated pts ($n = 37$) the median viral load was 52.880 cop/ml (range: 150 – 1.600,000 cop/ml) and the median abs. CD4 count was 525/ μ l (range: 90 -1057/ μ l) 12 months after seroconversion. Untreated pts had a median CD4 decrease of – 87/ μ l in comparison to the first CD4 cell count (baseline, $p = 0.01$).

Conclusions:

In this relatively large cohort of acute/primary infected HIV-pts early treatment did not change the viral load set point. However, there was an advantage with regard to immune function: 12 months after

seroconversion a median CD4 decrease of $-87/\mu\text{l}$ was observed in untreated pts. In treated pts, 12 months after stopping treatment, CD4 cell count was still increased by $+60/\mu\text{l}$ compared to seroconversion.

Key Words: Primary HIV-Infection, Acute HIV-Infection