



Episodic HIV-1 viraemia during suppressive antiretroviral therapy: impact on treatment outcome in a group of Nigerian patients.

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Objective

To determine the treatment outcome of patients who experience episodic viraemia after achieving undetectable viral load levels following successful HAART .



Methodology

- A retrospective cohort studies was done. Data included were those of adult patients who have been on ART in our center for at least 96 weeks and have at least one viral load measurement of < 50 copies/ml.
- Episodic viraemia was therefore defined as VL of $> 500 < 1000$ copies/ml and calculated as number of events per year.
- Adherence was defined using monthly reported missed doses.



Methodology cont'd

- Baseline viral load and base line CD4 were recorded.
- Viral load assay at 24th, 48th, 96th, and 120th week of therapy were also recorded.
- All patients received a combination of 2NRTIs and 1 NNRTI or PI.
- Univariate analysis were then performed on the variables.
- Ethical approval was obtained.



Results

- Data from a total of 107 patients (58% female) with 393 patient years follow up were analyzed.
- The median age was 34 years.
- Mean baseline HIV viral load was 99456 copies/ml with median baseline CD4 count of 180 cell/ul.
- Mean duration of HAART intake was 176 weeks.
- 62% of the patients had VL < 50 copies/ml at 24 Weeks.
- Mean reported adherence was 96%



Results

- 49% of the patients had at least 1 episode of viraemia during follow up .
- 59% of those who had virologic failure had 2 or more episodes of viraemia [p=0.042].
- High baseline viral load and detectable viremia at 24weeks were independently associated with episodic viraemia [p=0.047 and p<0.001 respectively].
- No association with HAART combination was noted.
- >2 Episodes of viremia >500 copies/ml was associated with low CD4+ T-cell nadir [p=0.002]



Discussion

- The aetiology as well as clinical significance of episodic viremia remain subjects of several debates.
- Most studies have analyzed data from patients with VL levels 50-500 copies/ml and results have been conflicting.
- This study has shown that repeated episodes of viremia >between 500 and 1000 copies/ml can negatively affect the treatment outcomes of patients with previously undetectable HIV RNA levels.



Conclusion

- Episodic viremia > 500 copies/ml is common in Patients on successful combination ART and has a negatively impact on long term virologic and immunologic treatment outcome.



Future perspectives

As more patients are enrolled on HAART globally ,more research is needed in to fully understand viral replication dynamics in patients who have achieved full viral suppression on antiretroviral therapy.



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