ABSTRACT

Background: The impact of access to antiretroviral therapy (ART) on sexual behaviors remains a major concern in the treatment of HIV infection. Longitudinal data were used to describe the course of sexual risk of HIV transmission taken among HIV-infected patients after initiating antiretroviral therapy (ART) during the follow-up period of 24 months. McNemar test was used to evaluate time changes (M0-M6, M6-M12, M12-M24) in the proportion of patients' sexual risk of HIV transmission taken among HIV-infected patients after initiating ART in rural district hospitals of Cameroon. The effect of receiving ART at different time period was examined using logistic regression with estimations based on generalized estimating equations (GEE).

Methods

- STRATALL (ANRS 12110) is a 24-month randomized trial conducted among 459 HIV-infected adults followed up in 9 district hospitals in Cameroon.
- Clinical follow-up at: J0, J15, M1, M3, M6, M9, M12, M15, M18, M21 and M24.
- To compare the effectiveness and safety a clinical monitoring alone and a laboratory-clinical monitoring.

Sexual behavior data and HIV plasma load data were collected at M0, M6, M12 and M24.

Sexual risk behaviors were deined as reporting not using condom or using either HIV-negative partners or with partners of unknown HIV-status during the 3 previous months.

McNemar test was used to evaluate time changes (M0-M6, M6-M12, M12-M24) in the proportion of patients' sexual activity.

The effect of receiving ART at different time period was examined using logistic regression with estimations based on generalized estimating equations (GEE).

Participants

- 459 HIV-infected adults enrolled
- Selection criteria: Visits of patients reporting sexual activity with their main or casual partners during the previous three months.

284 patients corresponding to 581 visits

Results

The percentage of patients reporting sexual activity significantly increased throughout the follow-up except between M6 and M12 (AOR [95%CI]=0.42[0.26-0.66];p<10-3) at M6 (AOR [95%CI]=0.39[0.27-0.68];p<10-3) and 55.1% at M24 (p=0.02). In addition, the proportion of patients having sexual risk behaviors significantly increased throughout the follow-up (M0: 47%, M6: 51%, M12: 55%, M24: 55%). The increase in the sexual and non-sexual behaviors between M0 and M24 (AOR [95%CI]=1.85[1.20-2.87], p<0.002) was also conditioned after multiple adjustments on the covariates (higher adherence to antiretroviral therapy, monitoring alone and a laboratory+clinical monitoring, monitoring alone and a laboratory+clinical monitoring, monitoring alone and a laboratory+clinical monitoring).

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After multiple adjustment:

- Receiving ART was independently associated with a lower risk of reporting sexual risk behaviors at M6 (AOR [95%CI]=0.45[0.29-0.67];p<10-3), M12 (AOR [95%CI]=0.70[0.45-1.11];p=0.128) and M24 (AOR [95%CI]=0.71[0.48-1.06];p=0.080).

No significant increase was found neither from M6 to M12 nor from M6 to M24.

Conclusion

Access to ART had a positive short-term effect on sexual risk behaviors among PLWHA followed-up in rural district hospitals in Cameroon. Although the time pattern of sexual risk behaviors highlights a significant trend to increase after 6 months of treatment this was not observed among patients with undetectable viral load after 6 months of treatment. The high frequency of these behaviors at all time periods underlines the necessity of both sustaining adherence and developing interventions to promote safer sexual practices.

AUTHORS

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CONCLUSIONS

- Access to ART had a positive short-term effect on sexual risk behaviors among PLWHA followed-up in rural district hospitals in Cameroon.
- Although the time pattern of sexual risk behaviors highlights a significant trend to increase after 6 months of treatment, this was not observed among patients with detectable viral load, suggesting that the risk of HIV transmission do not increase after 6 months of treatment in this sub-group.
- Nevertheless, the high frequency of these behaviors at all time periods underlines the necessity of both sustaining adherence and developing interventions to promote safer sexual practices.

Time pattern of sexual risk behavior after ART initiation among PLWHA from rural district hospitals in Cameroon

The STRATALL (ANRS 12-110) trial

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