

OKAPI * cohort: Observational Kinshasa AIDS Prevention Initiative

Sexual behaviors, HIV subtypes and ARV resistance in HIV Voluntary Counseling and Testing patients.



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BACKGROUND

HIV Voluntary Counseling and Testing (VCT) includes an HIV test and a pre- and post-test counseling

- HIV test (serological)
- Pre- and post- test Counseling: inform HIV– and HIV+ tests about HIV prevention and control

OBJECTIVES

Kinshasa OKAPI Project aims to analyze :

- 1) impact of the VCT on HIV-related knowledge and sexual behaviors (6 and 12-m follow-up);
- 2) predictors of changes in HIV-related knowledge and behaviours at follow-up;
- 3) viral load, HIV subtypes and ARV resistance in Dried Blood Spots (DBS) from HIV(+) and HIV undetermined.

METHODS

-Prospective cohort study.

-Inclusion criteria: 15-59 yr, living in Kinshasa, attending VCT at Monkole Hospital, no previous HIV+

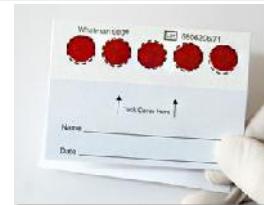
Interviews

- Personal interviews
- Questionnaires Q1, Q6 and Q12:
HIV knowledge, attitudes, behaviors

Statistical analysis

Stata 12.0. Multivariate logistic regressions

HIV serological and molecular analyses



- HIV serology
- HIV viral load
- HIV subtype
- HIV resistance mutations

RESULTS

April 2016-January 2017: 357 participants (10 HIV+, 16 HIV undetermined and 331 HIV-)

Baseline:

- Demographics: 55% women; mean age: 31; 75% middle-economic; 35% 2ary education, 64% university; 76% single.
- VCT: 17% both couple members receive VCT; 66% previously HIV tested; 5% perceive medium-high risk;
- STI diagnosis: 15% in previous 12 months.
- Misconceptions: HIV origin: 40% witchcraft or God.
- Sexual behaviors: 95% have had sex and 57% in the last 3 months; 85% have a partner, 20% concurrent and 14% multiple partners in the last 6 months; 80% have used condoms, <1% consistent use and 30% experiencing use problems; 61% oral sex; 21% anal sex; 13% paid sex; 2% same-sex.
- HIV-1 Viral load (n=11): $5,01 \pm 0,94 \log (\text{cop/mL})$
- Subtype distribution (n=11): A1 (4 patients), C (2 patients), F1 (2 patients), CRF06_cpx, CRF09_cpx, CRF11_cpx
- Resistance mutations (n=11): 2 patients with resistant strains (18%)--> 1 subtype C, K103N (NNRTI) and L10F (PI);
--> 1 subtype F1 with Y181C (NNRTI).

CONCLUSION

Findings from this study are expected to be useful to evaluate the specific information that people getting VCT in healthcare centers in Kinshasa should receive and to support the local guidelines on antiretroviral treatment.

Up to 18% of newly diagnosed patients may be infected by HIV strains resistant to non-nucleoside RT inhibitors (NNRTI).