

Feasibility and Efficacy of Highly Active Antiretroviral Therapy Among High-Risk HIV-1 Infected Women in West Africa

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OBJECTIVES

To describe the long-term clinical, immunological and virological outcomes of HAART among HIV-infected female sex workers (FSWs) in Burkina Faso

METHODS

- Design: prospective observational open cohort study nested within the Yerelon cohort of high-risk women living in Bobo-Dioulasso, Burkina Faso
- HIV-1 infected women initiated on HAART according to WHO recommendations
- Follow-up included:
 - monthly clinical visits
 - specific drug adherence support provided by psychologists and peer-educators
 - HAART adherence assessment
 - 6-monthly CD4+ cell count and plasma HIV-1 RNA measurements (RT-PCR)
- Cotrimoxazole prophylaxis, HAART and medical care provided free of charge

RESULTS

BASELINE

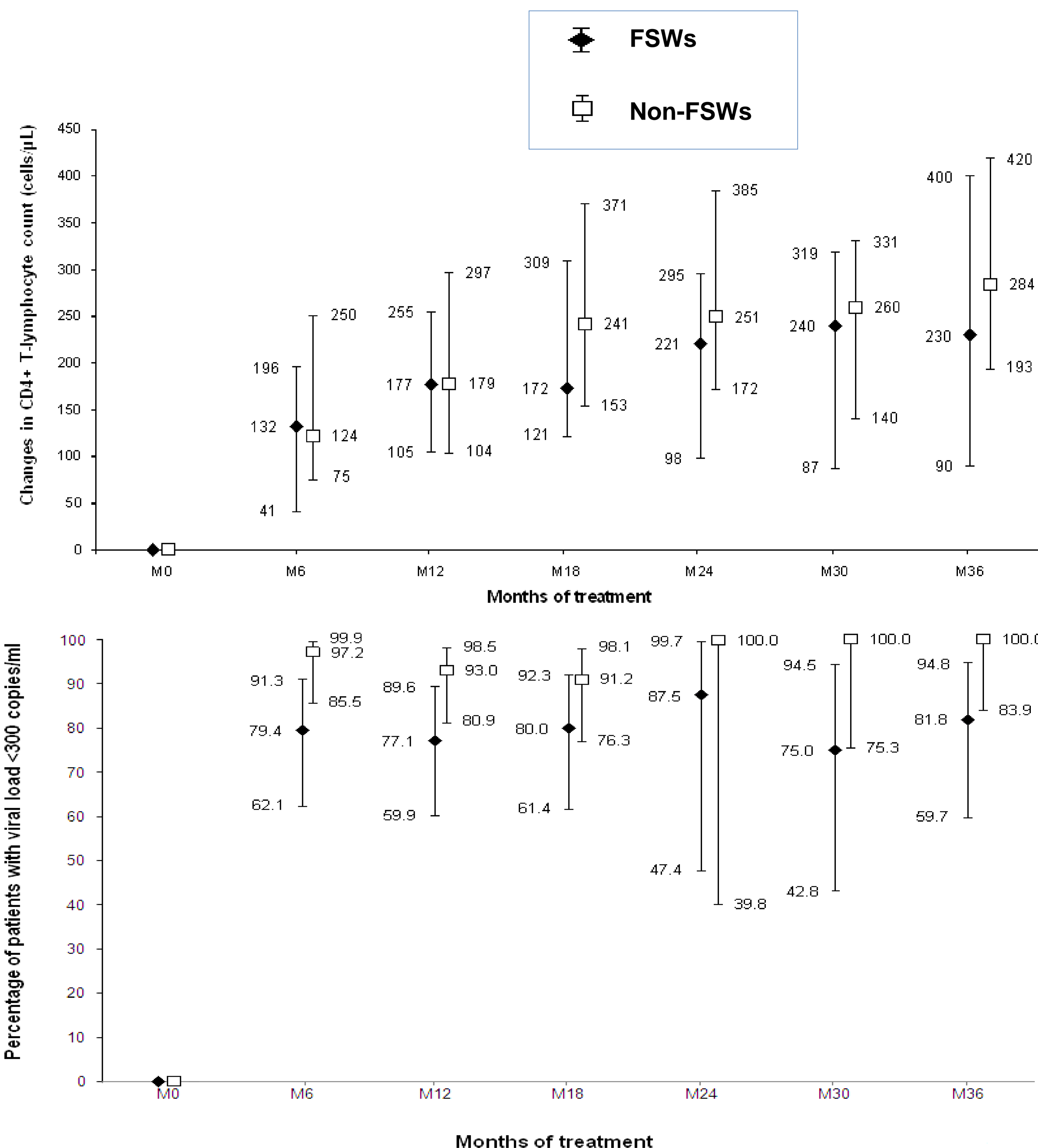
- 95 HIV-1 women enrolled including 47 FSWs
- WHO clinical stages III/IV: FSWs: 70%, non-FSWs: 69%
- Median CD4+ count:
 - FSWs: 147 cells/ μ L (IQR, 79-183)
 - non-FSWs: 144 cells/ μ L (IQR, 100-197)
- Mean HIV-1 plasma viral load:
 - FSWs: 4.94 log₁₀ copies/mL (95%CI, 4.70-5.18)
 - non-FSWs: 5.15 log₁₀ copies/mL (95%CI, 4.97-5.33)
- HAART regimen (for 97% of women):
 - 2 INRT [AZT or d4T + 3TC] + 1 INNRT [efavirenz or nevirapine]

FOLLOW-UP

- Median follow-up: 32 months (IQR, 20-41)
- 4 deaths (all FSWs), mortality rate: 1.7 per 100 pers-year
- 7 women lost to follow-up (2 FSWs)
- Survival probability among FSWs: 0.91** (95%CI, 0.78-0.97) at M36 after HAART initiation
- High adherence to HAART** (\geq 95% pills taken) among FSWs:
 - 83.3% (95% CI, 67.2-93.6) at M6; 100% (95% CI, 54.1-100.0) at M36
 - No difference compared with non-FSWs
- Drug-related adverse events (required regimen modification):
 - AZT: 4 severe anaemia (grades 3 or 4, ANRS scaling system)
 - ddl/d4T: 1 peripheral neuropathy
 - efavirenz: 1 central neurological disturbance

CONCLUSIONS

- Marginalised groups such as FSWs can sustain high drug adherence level in Africa
- Benefits - similar to other groups - can be sustained over the long term
- National programmes should not neglect improving access to HAART for this high-risk and marginalised population



- Rate of CD4 cell count gain at M36** (Top panel, Figure)
 - FSWs: 230 cells/ μ L (IQR, 90-400)
 - non-FSWs: 284 cells/ μ L (IQR, 193-420)
- Percentage of patients with undetectable HIV-1 viral load** (Bottom panel, Figure)
 - FSWs: 81.8% (95%CI, 59.7-94.8)
 - non-FSWs: 100% (95%CI, 83.9-100.0)

Grant from:

anRS

With support from:



Programme for Research & Capacity Building on Sexual & Reproductive Health & HIV in Developing Countries

