Efavirenz and positive urine test for cannabis - debunking the myth

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Background: Urine tests for cannabis were positive in some of patients who were detained by law-enforcers. These patients, in their defense, claimed that the test results were false-positives caused by Efavirenz which they were taking for the treatment of HIV infection. While in detention, some patients were deprived of their Highly Active Antiretroviral Therapy (HAART). This issue has become controversial for the patients, the law-enforcement agencies and the doctors treating these patients. This study was done to evaluate if urine collected from patients taking Efavirenz would produce positive urine test results for cannabis using the same urinalysis method used by Malaysian law-enforcement agencies.

Methods: Urine samples were collected from HIV-infected patients taking Efavirenz as part of HAART and tested for cannabinoids using the AxSYM Cannabinoids Assay® (Abbott, USA) which has a sensitivity of 13 ng/mL. Epidemiological data were collected from patient case notes and from face-to-face interviews. Descriptive analysis was done using SPSS® v.17 for Windows.

Results: 44 patients on Efavirenz were recruited. The mean age was 44.8 years (23–73 years), 12 (27.3%) females. Mean-years on Efavirenz, 3.8 years (1–14 years). Mean CD4 cell count on HAART initiation, 123.7 cells/μL (4–377). All were compliant in taking Efavirenz in the preceding 7 days before recruitment and 38 (86.4%) took Efavirenz within 30 minutes of scheduled time while the rest took Efavirenz within 60 minutes of scheduled time. 4 patients had history of detention by law-enforcers; 2 were taking Efavirenz at the time, of which 1 tested positive for urine cannabis and he was deprived of HAART during detention. Urine test for cannabis was negative for all 44 patients.

Conclusion: Urine tests for cannabis (using the AxSYM Cannabinoids Assay) were negative for all patients taking Efavirenz as part of HAART in this study. These patients were adherent to HAART. We conclude that Efavirenz is unlikely to be the cause of positive urine test for cannabis using the AxSYM Cannabinoids Assay which is used by law enforcement agencies in Malaysia.

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ing, and interventions to prevent perinatal transmission of HIV, at JSS Hospital, Mysore.

**Methods:** All women attending antenatal clinics of the hospital from October 2002 to December 2010 were counseled and subjected to HIV testing after an informed consent. Those found positive, were confirmed to be seropositive, by two more rapid tests. Such women were given SDNVP (200 mg) at the onset of labour. Caesarian delivery was carried out with universal precautions. Neonate was administered SDNVP (2 mg/kg body weight) at birth. Exclusive breast feeding was advised, baby followed up. Tested at 18 months of age by rapid tests for HIV.

**Results:** Out of 21003 women tested, 71 were confirmed positive. 46 (65%) patients delivered in our hospital. 30 patients were followed up for up to 18 months. None of these babies were seropositive at 18 months.

**Conclusion:** The intervention in PPTCT to significantly reduce perinatal transmission of HIV can be successful if guidelines are followed strictly and if the services are integrated with Maternal and Child Health services of the hospitals.

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**Factors influencing the initiation of antiretroviral therapy in HIV infected patients attending the Bamenda and the Bertoua regional treatment centers in Cameroon**

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**Background:** In sub-Saharan Africa, access to antiretroviral drugs (ARVs) remains low due to various obstacles. Encouraging progress in the availability of these drugs in Cameroon has been noted leading to an increase number of treatment centers and an increase number of patients under ARVs. The present study aimed at determining the factors influencing the initiation of ARV therapy in HIV infected patients attending the Bamenda and the Bertoua regional treatment centers in Cameroon (RTC).

**Methods:** A cross sectional study involving 460 files of HIV infected adult patients attending the Bamenda and the Bertoua RTC was carried out from January to April 2011. Socio-demographic, biological and clinical characteristics including the antiretroviral treatment were compared between these RTC. Data were analysed using the Chi-Squared and the Fischer, and statistical significance was set at p < 0.05.

**Results:** Out of the 460 files, 53.9% were from Bamenda and 46.1% from Bertoua RTC. The median age of patients was 36 years in Bamenda and 35 years in Bertoua. There were more female patients in both the Bamenda (69, 0%) and the Bertoua (61, 8%) RTC (p = 0.11). The majority of patients in Bertoua discovered their HIV status through voluntary testing as compared to those in Bamenda (41 vs 22; p = 0.008). HIV type 1 and 2 viruses were more frequent in Bamenda than in Bertoua (15 vs 3; p = 0.011). The median CD4 count was 133 cells/mm³ in Bamenda and 175 cell/mm³ in Bertoua (p = 0.008). Standard first line ARV drugs were the most used protocols [Bamenda (93.1%) and Bertoua (98.1)]. Zidovudine, Nevirapine and Lopinavir were more frequently used in Bamenda (p = 0.000), while Tenofovir and Effavirenz were more used in Bertoua (p = 0.017).

**Conclusion:** This study highlights the fact that socio-demographic, biological and clinical management of patients differ from one RTC to the other in Cameroon, even when both have a high HIV prevalence. We therefore recommend the standardiza-