

Morphological changes in HIV-1 infected patients on antiretroviral therapy without protease inhibitors in Cameroon: A prospective cohort study

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Data on morphological derangements induced by antiretroviral treatment in Cameroon are scarce. The aim of this study was to determine the effect of HIV infection and of antiretroviral therapy on lipid metabolism in order to help the clinicians to improve the management of HIV-infected patients. The lipid profile of 700 subjects of which 272 HIV-negative persons and 428 HIV-infected, treatment-naïve patients were evaluated. Blood was collected from the participants when they came for specialised consultation in the University Teaching Hospital of Yaoundé.

Biometric (body mass index, waist and hip circumference) and clinical (opportunistic infections) parameters were determined for each subject enrolled for the study.

The 428 patients were put on four (4) different antiretroviral (ARV) drugs as follows: 201 patients on triple association nevirapine (NVP)/stavudine (d4T)/lamivudine (3TC), 177 on tritherapy efavirenz (EFV)/stavudine/lamivudine, 34 on combination lamivudine/zidovudine (AZT)/efavirenz, and 16 on association zidovudine/lamivudine/nevirapine. The bodily changes of patients were measured during a period of two years of follow up. The overall prevalence of lipodystrophy increased significantly with the lamivudine/stavudine/efavirenz ARV regimen, with breast lipodystrophy being the most frequent (15.92%; $P = 0.038$). In general, the lipodystrophy was more prevalent in: (1) HIV-infected, treatment-naïve patients with a CD₄ count less than 200 cells/mm³, and a viral load (VL) more than 10000 copies/mL, and (2) female patients above 31 years old on ARV with CD4 count more than 350 cells/μL and viral load less than 50 copies/mL.

The waist and hip circumference of patients on ARV therapy were significantly higher than those of HIV-infected, treatment-naïve patients, irrespective of treatment regimen.

There seems to be a high risk of developing lipodystrophy by HIV-infected patients during ARV therapy. Further, in the treatment regimen that contains d4T and EFV, the risk of developing metabolic disorders seems to be high.

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