

Abstract

Background: Evidence shows that the use of protease inhibitors (PIs) in HIV/AIDS patients leads to the development of diabetes mellitus. Some degree of insulin resistance has also been noted in HIV infected patients not on protease inhibitor therapy and this may cause glucose intolerance and overt diabetes mellitus.

Objective: To describe the epidemiological and laboratory characteristics associated with diabetes mellitus in HIV positive patients who are HAART naive.

Design: Cross-sectional, cohort analysis of patients with HIV infection on HIV care programme.

Setting: Kisumu District Hospital and Mater Hospital.

Subjects: Ten adult patients with HIV infection at initial presentation to the clinic.

Main Outcome Measures: Blood Sugar, CD4+ Cell Count, body mass index (BMI), alanine transaminase (ALT), aspartate transaminase (AST), serum lipase and amylase levels.

Results: One hundred and three patients (60 males and 43 females) were screened. Ninety one (57 males, 34 females) patients were excluded because they had normal blood sugars. Twelve patients were excluded and out of these, two were further excluded due to pancreatitis. Ten patients (three males and seven females) were included in the study. The mean age and body mass index was 48.9 years (27-68) and 22.6 kg/M² (16.8-28.8) respectively. All patients were HAART naive. Mean fasting blood sugar was 17.8 mmol/L (15.4-27.1), mean CD4+ cell count was 236.9 cells/ μ l (12-885). There was no family history of diabetes mellitus. Mean ALT, AST, serum amylase and lipase levels were all normal at 34 IU/L, 28.4 IU/L, 76.7 IU/L and 34.96 IU/L respectively. The patients were not on diabetogenic drugs or steroids.

Conclusion: Diabetes mellitus is recognised in patients having HIV/AIDS who are HAART naive. They had low mean CD4+ cell count. The body mass indices (BMIs) were all normal and all were type II diabetics (T2DM). Adequate screening should be done to detect this metabolic syndrome early enough, especially where a family history of diabetes and other risk factors occur.