Thyroid function among HIV/AIDS patients on highly active anti-retroviral therapy

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Abstract:

Objectives: To assess the thyroid function among Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) patients on anti-retroviral drugs: stavudine, lamivudine and nevirapine and to establish the prevalence of non-thyroid illness. Design: Laboratory based comparative cross-sectional study. Setting: Comprehensive care clinics at KNH and Mbagathi District Hospital. Subjects: Eighty four HIV-infected patients on treatment with ARVs (ARV +ve) and an ARV naive (ARV naive) group of 26 HIV-infected patients. Results: Thyroid stimulating hormone levels were not altered following treatment whereas the levels of FT4 decreased. The frequency of those with low FT4 were increasing with continued ARV use. The prevalence of non-thyroidal illness state defined by TSH within reference ranges and low FT4 was comparable among the ARV +ve and ARV naive groups (44 and 46% respectively). Conclusion: Progressive use of HAART causes decline in FT4 hormone levels. It is debatable whether interventions for low FT4 is necessary in ARV treatment but a longitudinal study would explain the progressive trend of thyroid hormones and implications with HAART treatment. The prevalence of NTI is comparable to both HAART users and non-users. Low levels of thyroid hormone (FT 4) may be an adaptive response by thyroid gland to minimize calorie utilisation as in chronic diseases.