

Abstract

Background: Sub-Saharan Africa with under 10% of the world's total population accounts for 60-70% of all HIV/AIDS cases. While these patients require HAART to manage the disease, HAART is not universally available. Majority of the patients are in resource-constrained settings, have multiple co-morbidities/infections, opportunistic infections, present late for treatment and are in the advanced stages of the HIV/AIDS infection.

Objective: To describe the CD4+ cell counts, opportunistic infections and laboratory parameters of a cohort of HIV positive, HAART-naive patients at first presentation.

Design: Cross sectional, prospective, descriptive, consecutive entry study.

Setting: Kisumu District Hospital wards (medical, surgical) and medical outpatient clinic, Nairobi Rheumatology Clinic, Nairobi West Hospital and the Mater Hospital between January 2001 and December 2008.

Main outcome measures: Socio-demographic parameters, opportunistic infections, CD4+ cell counts and complete blood count, biochemistry, HBsAg markers and anti-HCV serostatus.

Results: Eight hundred and thirty four (350 males and 484 females) patients were screened. Three hundred and seventy (94 males and 276 females) patients were excluded. Four hundred and sixty four (256 males and 208 females) patients were finally included in the study. The mean age was 37.2 ± 10.6 years, range (12-78). The M: F ratio was 1.2:1. The mean CD4+ cell count was 106.5 ± 125.2 cells/μl manifesting severe immunosuppression. Fifteen (3.2%), 19(4.1%), 43(9.3%) and 387(83.5%) had CD4+ cell counts of > 500, 350-499, 200-349 and < 200 cells/μl respectively. The mean white blood cell count was 8.63 ± 8.8 × 10³/ml (4.8-10.8 × 10³/μl). Over half (51.3%) patients had leucopaenia, white cell count < 4.8 × 10³/μl, 35 (7.5%) had leucocytosis and the rest 191 (41.2%) patients had normal white blood cell counts. The mean haemoglobin level was 7.16 ± 5.01 g/dl (12-18 g/dl) and 154 (33.2%) had haemoglobin level < 5g/dl manifesting severe anaemia. The patients had multiple co-morbidities and 248 (53.4%) had ≥ 2 co-morbidities.

Conclusion: The patients presented with severe immunosuppression evidenced by low CD4+ cell counts, anaemia and multiple co-morbidities. Majority presented late at which point the cost of management is high and outcomes are likely to be poor. They required HAART and prompt management of the co-morbidities to mitigate morbidity and reduce mortality. It would be prudent to study treatment outcomes and their determinants overtime in patients with severe HIV disease. Also, requiring study is how long such patients with severe HIV disease who commence HAART would last on first line treatment before requirement of alternative treatment.