

Haematological abnormalities among children living with HIV and attending care and treatment clinics Dar es Salaam Tanzania

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Abstract:

Background:

Haematological abnormalities are blood forming disorders, that can develop from human immunodeficiency virus (HIV) infected individual receiving a highly active antiretroviral therapy (HAART). Haematological complications commonly associated with HIV infection include anaemia, neutropenia, lymphopenia and thrombocytopenia. They have been identified as strong independent predictors of morbidity and mortality from HIV infected individuals receiving HAART.

Objective:
The broad objective of this study is to determine the magnitude of haematological abnormalities among children living with HIV on HAART and attending Mwananyamala and Magomeni Care and Treatment Clinics.

Methodology:

This was an analytical cross-sectional study conducted at two clinics located in Kinondoni District, Dar es Salaam within a period of two months from March 1 to April 31, 2021. The study population were children living with HIV on HAART aged between 6months and 15 years. Data was collected using structured questionnaires. Blood samples was collected from participant for complete blood count. Data was entered into a computer software and analysed using SPSS 20 version.

Results:

A total of 102 children were enrolled in the study, majority being female 59 (57.8%) characterised by primary level of education. The majority of study participants 55 (57.9%) were in AIDS-WHO stage 3. Forty-four (43.1%) had BMI of less than 15percentile. The mean time use of HAART was 6 years and the ART commonly used were Abacavir (ABC), Lamivudine (3TC) and Lopinavir/Ritonavir (LVr). The study found that at least 88% of children receiving ART had at least one or more haematological abnormalities. The haematological abnormalities commonly found was Anaemia 67(65.7%). Moderate anaemia and severe anaemia were found in 39 (37.3%) and 28 (28.43%) respectively. Neutropenia was the next most common haematological abnormality found in 65 (63.7%). Thrombocytopenia was the least haematological abnormality found in this study at 5(4.9%). Neutropenia was statistically associated with the young age with p-value=0.005. There was no significant association between haematological abnormalities, the level of CD4 cells and the viral load (VL). Adherence to the standard ational guideline with regard to clinical care on haematological abnormalities was inadequate. Only about 50% of the study children had their full blood picture (FBP) taken before treatment. The study found no subsequent regular follow up of haematological parameters for the children on ART.
