ResearchGate

See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/331504710

EVALUATION OF THE PREVALENCE OF CARDIAC DYSFUNCTION IN HUMAN IMMUNODEFICIENCY VIRUS INFECTED CHILDREN ON HIGHLY ACTIVE ANTIRETROVIRAL THERAPY

Article *in* Journal of the American College of Cardiology · March 2019

DOI: 10.1016/S0735-1097(19)31494-9

CITATIONS
0

READS
39

6 authors, including:

Dorcas Obiri-Yeboah
University of Cape Coast
103 PUBLICATIONS **325** CITATIONS
SEE PROFILE

Joslin Dogbe
Kwame Nkrumah University Of Science and Technology
44 PUBLICATIONS **129** CITATIONS
SEE PROFILE

Muktar H Aliyu
Vanderbilt University
204 PUBLICATIONS **3,399** CITATIONS
SEE PROFILE

Jonathan H Soslow
Vanderbilt University
96 PUBLICATIONS **334** CITATIONS
SEE PROFILE

Some of the authors of this publication are also working on these related projects:

Optimizing Integrated PMTCT Services in Rural North-Central Nigeria 1R01HD075075 View project

Project Among African Americans to Explore Risks for Schizophrenia View project

All content following this page was uploaded by Dorcas Obiri-Yeboah on 05 May 2019.

The user has requested enhancement of the downloaded file.

ACC.19

887
JACC March 12, 2019
Volume 73, Issue 9

Heart Failure and Cardiomyopathies

EVALUATION OF THE PREVALENCE OF CARDIAC DYSFUNCTION IN HUMAN IMMUNODEFICIENCY VIRUS INFECTED CHILDREN ON HIGHLY ACTIVE ANTIRETROVIRAL THERAPY

Poster Contributions
Poster Hall, Hall F
Sunday, March 17, 2019, 9:45 a.m.-10:30 a.m.

Session Title: Heart Failure and Cardiomyopathies: Clinical 3
Abstract Category: 13. Heart Failure and Cardiomyopathies: Clinical
Presentation Number: 1244-561

Authors: *Benjamin Acheampong, Dorcas Obiri-Yeboah, Joslin Dogbe, Muktar Aliyu, David Parra, Jonathan Soslow, Vanderbilt University Medial Center, Nashville, TN, USA, Cape Coast Teaching Hospital, Cape Coast, Ghana*

Background: Prior to the widespread use of highly active antiretroviral therapy (HAART), the prevalence of cardiac dysfunction among children infected with human immunodeficiency virus (HIV) was estimated between 50-75% in sub-Saharan Africa. We assessed the cardiac function among Ghanaian HIV-infected children on long term HAART and determined factors associated with cardiac dysfunction.

Methods: Confirmed HIV infected (HIV+) children aged 9 - 240 months (mo) from a tertiary teaching hospital and nearby hospitals in Cape Coast, Ghana were recruited. HIV exposed/uninfected (HIV-) aged 2 - 216 mo were used as controls. Cardiac assessment included: fractional shortening (FS) by M-mode; left ventricular ejection fraction (LVEF) using bullet method; assessment for pericardial effusion and diastolic function by tissue Doppler E/E'; E/E' <10 was considered normal. Most recent CD4 count and viral load were obtained from the medical records. The prevalence of cardiac abnormalities were determined using simple proportion; two sample t-test, Wilcoxon rank sum test and linear regression were used to compare means and test relationships between function, CD4 count and viral load.

Results: Among 185 children, 121 were HIV+ and 64 were HIV-. The HIV+ group was older (median age 120 mo vs 24 mo, p <0.001). Echocardiographic abnormalities were present in 13.2% of HIV+ group. Abnormalities included LVSF <28% in 4.1% (n=5); LV dilation (LV internal dimension in diastole z-score >2) in 3.3% (n=4); LVSF <28% and LV dilation in 2.5% (n=3); LVEF <55% in 2.5% (n=3) and pericardial effusion in 0.80% (n=1). No abnormalities were seen in the control group. The mean (±SD) cardiac functional indices for the HIV+ vs the HIV- were FS (35.8%±0.47 vs 39.7%±0.51, p=0.004), EF (59.5%±0.35 vs 60.2±0.54, p=0.28). Abnormal diastolic indices were present in 4.1% (n=5) of the HIV+ children. The mean CD4 count (n=53) was 799.6 (±586.2) cells/mm^3; median (IQR range) viral load (n=54) was 40830 (279-201769) copies/ml. There was a weak positive association between CD4 count and EF (r^2=0.10, p=0.01).

Conclusion: Cardiac dysfunction among Ghanaian HIV+ children on long term HAART is lower than previously reported in sub Saharan Africa.

View publication stats