



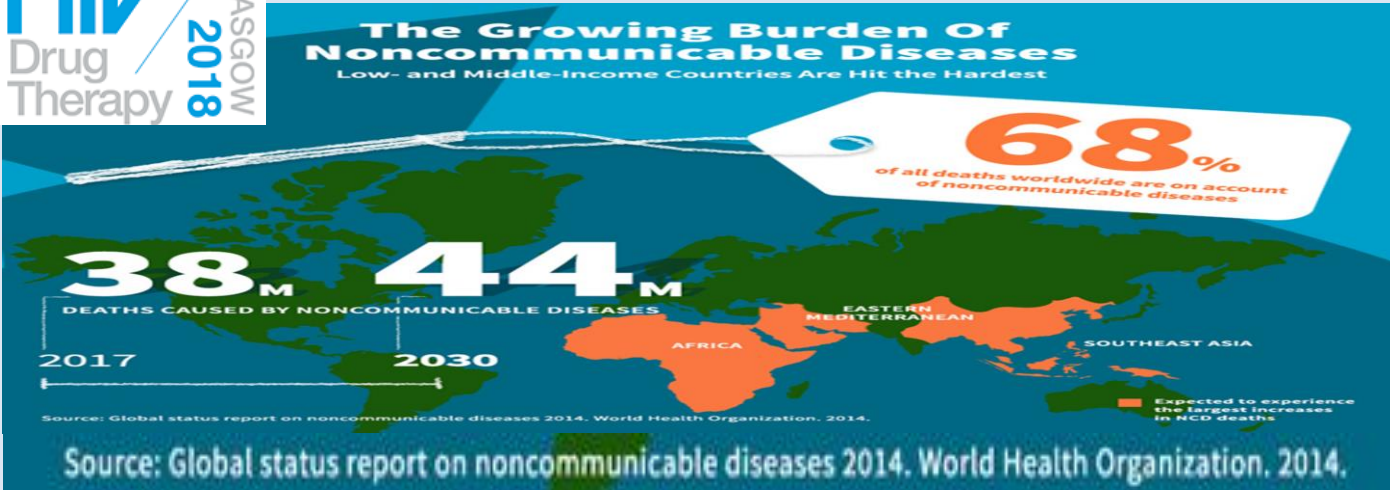
THE BURDEN OF CHRONIC CO-MORBIDITIES AMONG HIV-INFECTED ADULTS IN A LARGE URBAN HIV CLINIC IN UGANDA

Rachel Musomba ^{1,2}, Noela Owarwo ¹, Maria Sarah Nabaggala ¹, Mark Nsumba ¹, John Matovu ¹, Mohammed Lamorde ¹, Barbara Castelnovo ¹



¹Infectious Disease Institute, Kampala Uganda ²McGill HIV Centre, Montréal Canada

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Background

Non-communicable diseases (NCDs), including diabetes, and hypertension represent 46% of the global burden of disease and cause an estimated 35 million deaths each year.[1] Among HIV infected persons, NCDs have increased due to increased access to antiretroviral treatment in Sub Saharan Africa.[2] Understanding the epidemiology of such conditions among HIV infected persons is essential in planning for health care interventions and optimizing clinical care.

Objectives

To determine the prevalence and risk factors of hypertension (HTN) and diabetes mellitus (DM) among HIV infected adults at the Infectious Diseases Institute (IDI), Uganda.

Methods

- We included all HIV positive patients in care at the IDI between 2014 (when a specialized Non communicable Diseases(NCD) clinic was established) and 31st December 2017.
- We extracted data from the IDI electronic medical database on demographics, clinical events and random blood sugar results.
- Disease definitions (MOH) were 1) HTN: systolic >140 mm Hg and diastolic >90 mm Hg; and, 2) DM: RBG >11 mmol/L
- Descriptive statistics were obtained using medians (Interquartile range) and frequency distributions for the continuous and categorical variables respectively.
- Binary logistic regression was used at the multi variable level adjusting for gender, age, ART status, CD4 count, duration in care, ART duration, and ART regimen to estimate Odds Ratios (OR) and 95% Confidence Intervals (CI) to assess factors associated with HTN and DM.

Results

- Overall 8,449 HIV infected adults were included
- 5,278 (62.4%) were females
- 8,387(99%) were on ART.
- Prevalence of hypertension was 9.1% (females 55.4%, males 44.6% $p < 0.001$) while that of diabetes mellitus was 2.5 % (females 59.6%, males 40.4% $p < 0.001$)
- 149(1.8%) patients had both hypertension and diabetes
- Medium duration on ART was 9.3 years (IQR:5.2-12.3) and 11.3 years (IQR:5.3-12.6) for HTM and DM respectively
- Predictors of hypertension were:
 - Male gender (OR = 1.09, CI: 0.93 – 1.29)
 - Age >50 years (OR = 1.04, CI: 1.05 – 1.08)
 - Longer duration in care (OR = 1.07, CI: 1.02 – 1.11)
 - Longer duration on ART in years (OR = 1.03, CI: 1.00 – 1.05)
- Predictors of diabetes were:
 - Male gender (OR = 0.88, CI: 0.82 – 0.92)
 - Age >50 years (OR = 1.07, CI: 1.01 – 1.12)
 - Longer duration on ART (OR = 1.11, CI: 1.10 – 1.12)
 - CD4 <500 compared to CD4 >500 (OR = 1.05, CI: 0.92 – 1.19)
- 149(1.8%) patients had both HTN and DM

Conclusions

The results demonstrate that hypertension and diabetes mellitus and their risk factors is a growing public health problem especially among male elderly HIV positive patients. The findings emphasize need for health care intervention and resource to reduce the growing burden of chronic comorbidities.

References

- World Health Organization. The global burden of disease: 2014
- Research shows higher risk of developing non-communicable diseases in Africa. World Health Organization. 2016.
- Global status report on noncommunicable diseases 2014. World Health Organization. 2014.