

COVID-19 and HIV in Nigeria

Opeyemi Folorunso

African Centre of Excellence for Public Health and Toxicological Research (ACE-PUTOR), University of Port Harcourt, PMB, Port Harcourt 5323, Rivers State, Nigeria

ABSTRACT

The coronavirus infection (COVID-19) has been a challenging pandemic that has been ravaging the world since 2019 which has claimed more than 3.6 million lives globally. This development is a double burden on public health considering the ongoing HIV/AIDS pandemic with 37.9 million people living with HIV and 770,000 deaths from AIDS in 2018. Sub-Saharan Africa has been the epicenter of HIV/AIDS pandemic with the region accounting for 68% of the infection as at 2018, 74% of the 1.5million deaths from HIV/AIDS in 2013. Nigeria remains the second largest HIV epidemic in the world with 1.9million people living with HIV in 2018. Nigeria is also one of the top 5 countries in sub-Saharan Africa (SSA) with the highest numbers of confirmed cases of COVID-19. Despite the double burden effect that the COVID-19 pandemic is presently having on the HIV-positive population in Nigeria, there has been no case reports or research in Nigeria to determine the prevalence, prognosis and outcome of this pandemic among the vast population of PLWHA in the nation.

*Corresponding author

Opeyemi Folorunso, African Centre of Excellence for Public Health and Toxicological Research (ACE-PUTOR), University of Port Harcourt, PMB, Port Harcourt 5323, Rivers State, Nigeria.

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Introduction

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus: Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). It was announced a pandemic by the WHO on 11th March 2020, 172 million people have been infected and has claimed the lives of 3.69 million people worldwide as at 3rd June 2021 [1]. Presently in Nigeria, a total of 167,000 people has been reported to have been infected with COVID-19 with 2,099 deaths from 27 February 2020 when the first case was confirmed [2]. Nigeria is one of the top 5 countries in sub-Saharan Africa (SSA) with the highest numbers of confirmed cases of COVID-19 [3]. The pandemic has negatively affected all the various aspects of the society (health, security, political, economic and social) globally, with the health sector being at the fore-front of bearing the brunt the pressure [4]. Meanwhile, HIV/AIDS has also been referred to as pandemic with 37.9 million people living with HIV and 770,000 deaths from AIDS in 2018. Though the prevalence rate of HIV in Nigeria is declining at 1.5%, Nigeria due to her large population remains the second largest HIV epidemic in the world with 1.9million people living with HIV in 2018 [5]. The advent of COVID-19 pandemic therefore, has resulted in clash of pandemics [6].

The Syndemic of Hiv/Aids, Non-Communicable Diseases and Covid-19 Infection

Many researches have established the presence of co-morbidities associated with chronic HIV infection: HIV-associated CVD HIV associated renal and genitourinary diseases HIV associated malignancies and HIV associated pulmonary diseases [7-10]. These co-morbidities lead to avoidable untimely death, which

may blunt the health gains attained in HIV infected populations [11]. The pathophysiology underlying the development of these non-communicable diseases in HIV population include immunosuppression, antiretroviral drug toxicities, HIV related inflammation and hypercoagulation [10-12]. These co-morbidities are discovered from studies to be more common and manifesting at earlier age in persons living with HIV than in HIV-uninfected matched controls [13, 14]. Furthermore, it has been established that severe COVID-19 infection and worse prognosis are experienced by older patients and those with co-morbidities (hypertension, diabetes, cardiovascular disease, lung disease and chronic kidney disease) [15]. A study in Southwest Nigeria has confirmed that significantly higher proportion of COVID-19 patients with comorbidities died compared to those with none, and also discovered that HIV is one of the comorbidities that predicted death among COVID-19 patients (OR: 1.77–84.15) [3].

Impact of Covid-19 Infection on Hiv/Aids Management in Nigeria

Additionally, the impact of COVID-19-associated disruption on HIV prevention and treatment services has been identified. This impact stems from many sources including the lethargy of the healthcare workers due to their perception of higher risk of COVID-19 infection resulting in depreciation of healthcare service delivery including HIV services [16, 17]. The burden of the lockdown on the economy of the nation and individuals leads to financial limitations causing reduced access to adequate facility based-care [18]. The HIV-positive population in Nigeria is experiencing double burden of these pandemics. Apart from the possibility of being at a greater risk of severe COVID-19 infection

due to their predisposition to co-morbidities, they are also at risk of losing access to widespread availability of ART as a result of the diversion of official development assistance from the developed countries to COVID-19 management and prevention [19-21]. These challenges will eventually lead to poor access to ART, drug resistance, increased risk of transmission, increase incidence of HIV, and increased mortality in HIV population which has been speculated to double this year (NACA, 2020)

Despite the predisposition of PLWHA to development of these co-morbidities making them more at risk of severe COVID-19 infection, there has been no case reports or research in Nigeria to determine the prevalence, prognosis and outcome of this pandemic among the vast population of PLWHA in the nation. Availability of such reports will establish the burden of this pandemic and confirm the speculated increase in mortality among PLWHA co-infected with COVID-19 in the country. Such knowledge will further inform on advocacy, nudging the government to be proactive in putting measures in place to prevent loss of the health gains that has been earlier achieved in this population from availability of ART [22, 23].

Conclusion

The syndemic of HIV/AIDS pandemic (with its attendant predisposition to non-communicable diseases) and COVID-19 infection in Nigeria call for proactive steps by gathering information to determine the impact of these pandemics on the teeming HIV-positive population in the country. This will enable informed decisions to reduced the predicted increased mortality in this population.

References

1. Averting HIV and AIDS (2018) Global HIV and AIDS statistics | AVERT Averting HIV and AIDS Available at: <https://www.avert.org/global-hiv-and-aids-statistics>.
2. Edem Basse A, Chidubem Olisaeloka L, Adebisi YA (2020) Identifying the Gaps in HIV Prevention and Treatment During the COVID-19 Pandemic in Nigeria International Journal of Infection 8: 1-6.
3. Osibogun A (2021) Outcomes of COVID-19 patients with comorbidities in southwest Nigeria PLoS ONE 16: 1-12.
4. World Health Organization (2021) Media briefing on COVID-19, Retrieved from <https://www.afro.who.int/health-topics/coronavirus-covid-19>.
5. National HIV and AIDS Strategic Plan, 2017-2021' (no date).
6. Del Amo J (2020) 'Incidence and Severity of COVID-19 in HIV-Positive Persons Receiving Antiretroviral Therapy : A Cohort Study Annals of internal medicine 173: 536-541.
7. Syed FF, Sani MU (2013) 'Recent advances in HIV-associated cardiovascular diseases in Africa Heart 99: 1146-1153.
8. Kalyesubula R (2014) 'HIV-associated renal and genitourinary comorbidities in Africa Journal of Acquired Immune Deficiency Syndromes 67: 68-78.
9. Adebamowo C A (2014) 'Challenges in the detection, prevention, and treatment of HIV-associated malignancies in low-and middle-income countries in Africa Journal of Acquired Immune Deficiency Syndromes 67: 1-19.
10. Bloomfield GS (2015) NIH Public Access <https://www.ncbi.nlm.nih.gov/pmc/about/public-access-info/>.
11. Venkat Narayan K M (2014) HIV and noncommunicable disease comorbidities in the era of antiretroviral therapy: A vital agenda for research in low-and middle-income country settings Journal of Acquired Immune Deficiency Syndromes 67: 2-7.
12. Kalyesubula R (2014) 'HIV-associated renal and genitourinary comorbidities in Africa Journal of Acquired Immune Deficiency Syndromes 67: 68-78.
13. Schouten J (2014) Cross-sectional comparison of the prevalence of age-associated comorbidities and their risk factors between hiv-infected and uninfected individuals: The age H IV cohort study Clinical Infectious Diseases 59: 1787-1797.
14. Maciel RA (2018) 'Comorbidity is more common and occurs earlier in persons living with HIV than in HIV-uninfected matched controls, aged 50 years and older: A cross-sectional study International Journal of Infectious Diseases. International Society for Infectious Diseases 70: 30-35.
15. Sanyaolu A (2020) Navigating the Diagnostics of COVID-19 Sn Comprehensive Clinical Medicine 1-8.
16. Bhagavathula AS (2020) Knowledge and perceptions of COVID-19 among health care workers: Cross-sectional study JMIR Public Health and Surveillance 6: 1-9.
17. Ogolodom M (2020) Knowledge, Attitudes and Fears of HealthCare Workers towards the Corona Virus Disease (COVID-19) Pandemic in South-South, Nigeria Health Sci J 19: 1-10.
18. Ridgway JP (2020) HIV Care Continuum and COVID-19 Outcomes Among People Living with HIV During the COVID-19 Pandemic Chicago IL AIDS and Behavior Springer US 24: 2770-2772.
19. Dada DA, Aku E, David KB (2020) Covid-19 pandemic and antiretrovirals (Arv) availability in nigeria: Recommendations to prevent shortages Pan African Medical Journal 35: 1-3.
20. Oladele TT (2020) The impact of COVID-19 on HIV financing in Nigeria: a call for proactive measures BMJ Global Health 5: 002718.
21. Points K EY (2015) Children HIV and AIDS <https://data.unicef.org/resources/children-hiv-and-aids-global-and-regional-snapshots-2019/>.
22. Kharsan AB M, Karim QA (2016) HIV Infection and AIDS in Sub-Saharan Africa Current Status Challenges and Opportunities The Open AIDS Journal 10: 34-48.
23. National Agency for the Control of AID (2020) Effects of COVID-19 and HIV Retrieved from <https://naca.gov.ng/effects-of-covid-19-and-hiv/>.

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