Assessing the burden of Long-Covid in Persons with HIV using the RECOVER Research Index

921

Kamaria A Dansby[1], C.Christina Mehta[1], Tsungirirai Maramba[1] , Lauren F. Collins[1,2], Caitlin Moran[1,2,] Phyllis Tien[3], Brad Aouizerat[4], Joseph Margolick[5], Michelle Floris-Moore[6], Kara Chew[7], Valentina Stosar[8], Yijia Li[9], Amber D'Souza[5], Kathryn Anastos[10], Igho Oftotkun[1,2]

[1]Division of Infectious Diseases, Emory University School of Medicine, Atlanta, GA, USA, [2]Ponce de Leon Center, Grady Health System, Atlanta, GA, USA, [3]Division of Infectious Diseases, Department of Medicine, University of California, San Francisco, CA, USA; [4]Department of Oral & Maxillofacial Surgery, New York University, NY, USA; [5]Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA; [6]Division of Infectious Diseases, University of North Carolina School of Medicine, Chapel Hill, NC, USA; [7]Department of Medicine, Division of Infectious Diseases, University of California, Los Angeles, CA, USA; [8]Division of Infectious Diseases, Northwestern University, Feinberg School of Medicine, Chicago, IL, USA; [9]Division of Infectious Diseases, University of Pittsburgh, PA, USA; [10]Department of Medicine, Albert Einstein College of Medicine, Bronx, NY, USA

BACKGROUND

Some individuals recovering from **COVID-19** experience persistent symptoms after initial infection, a condition known as **Long Covid (LC).**

Persons Living with HIV are hypothesized to be at **greater risk** of LC due to chronic immune dysregulation when compared to **Persons without HIV**. Existing data are conflicting due to inconsistent definitions of **LC.**

We used the **RECOVER Research Index (RRI)** to define and assess the burden and pattern of LC presentation in PWH vs PWoH who had prior COVID-19 in the MACS/WIHS Combined Cohort Study (MWCCS).

METHODS

Inclusion criteria **: MWCCS participants** with **positive COVID-19 test** between 04/2020 and 11/2023 who completed the COVID-19 survey between 30 and 365 days after COVID-19 infection. **N= 1,616 (33%)**

↓

LC was defined using the RSS, which weighs **12 common LC symptoms** according to strongest association with LC in and sums the weights for a total score. Participants with **total scores ≥12** met criteria for LC **(N= 153) (9.5%)**

↓

We characterized LC symptom type **by HIV serostatus, sex, and COVID-19 vaccination status** using chi-square tests.

Persons Living with HIV were similarly likely to develop LC after an acute COVID-19 infection when compared to Persons without HIV.

MWCCS MACS/WIHS COMBINED COHORT STUDY | RECOVER Researching COVID to Enhance Recovery | EMORY UNIVERSITY SCHOOL OF MEDICINE

RESULTS

PLWH

Among **PLWH** who reported having COVID **97/1010 (9.6%)** met criteria for LC

Median (Q1,Q3) LC score : **13 (12, 17)**

PWoH

Among **PWoH** who reported having COVID **56/606 (9.2%)** met criteria for LC

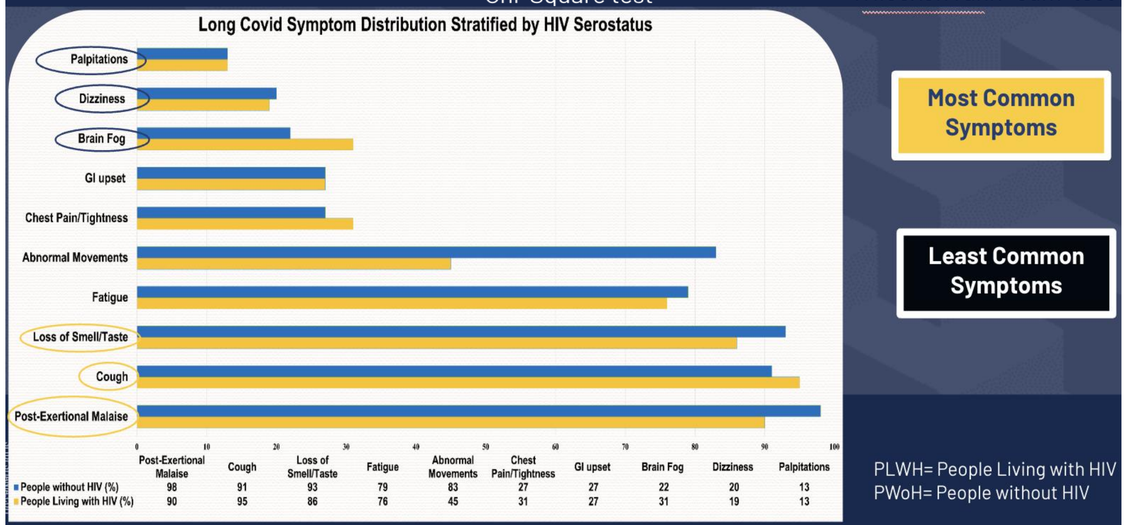
Median (Q1,Q3) LC score : **14 (12, 17.5)**

p-value= **0.89***

p-value=**0.406**

*Chi-Square test

*Wilcoxon rank- sum test



Most Common Symptoms

Least Common Symptoms

PLWH= People Living with HIV
PWoH= People without HIV

CONCLUSIONS

Using the highly specific yet conservative **RECOVER research index** to define Long Covid, People Living with HIV and People without HIV were **similarly likely** to develop Long Covid after an acute COVID-19 infection, with **similar symptomatology.**

-Neither age nor sex affected the prevalence of LC in this cohort.

-Covid- 19 vaccination status **did not affect LC prevalence.**

DISCUSSION

The observed **LC symptom pattern and prevalence** may be attributed to the **well-controlled HIV s**tatus in our cohort.

-Limitations of this study include small sample size and use of self reported Long Covid symptoms and acute Covid-19 infection status.

ACKNOWLEDGEMENTS

Supported in part by the National Center for Advancing Translational Sciences of the National Institutes of Health under Award Number **UL1TR002378**
Grant : **TL1TR002382**

- MWCCS team and participants