

# COVID19 Outbreak Impact on Stroke Incidence: the Jamaican Experience

Authors: Kimikawa Morgan-Channer, Amza Ali, Landell Dominic, Ernesto Simon, Diane Buckley-Smith, Hugh Wong, Chaitram Singh. Kingston Public Hospital



1

## Introduction

Jamaica's first index case of novel coronavirus was confirmed on March 10, 2020. Since then the number of cases has risen to more than 5000, 60% of these within 20 miles radius of the Kingston Public Hospital (KPH). Since September 2019, the KPH started a stroke registry as a quality improvement measure to support the stroke care program development at our National Tertiary Referral Centre.

**OBJECTIVE:** We investigated the impact of COVID 19 outbreak in Jamaica on the total number TIA /Stroke admissions from the Accident and Emergency (A&E) Department at KPH.

2

## Methodology

We reviewed entries for all medical admissions from the A&E Department for the period January-May 2020.

3

## Results

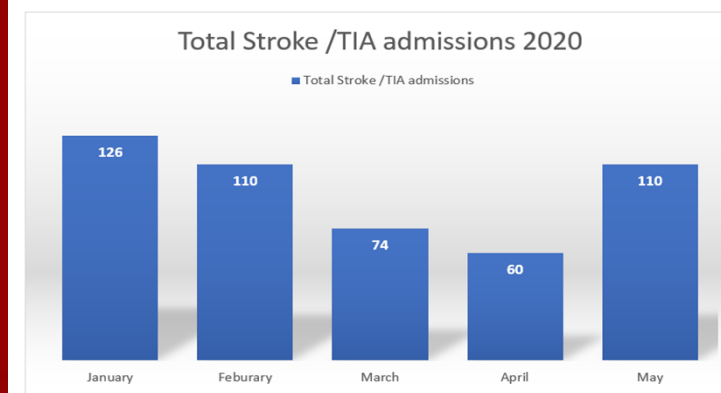


Figure 1 Total cases of stroke/TIA admitted through A&E department during period January 2020 to May 2020 during novel coronavirus outbreak in Jamaica

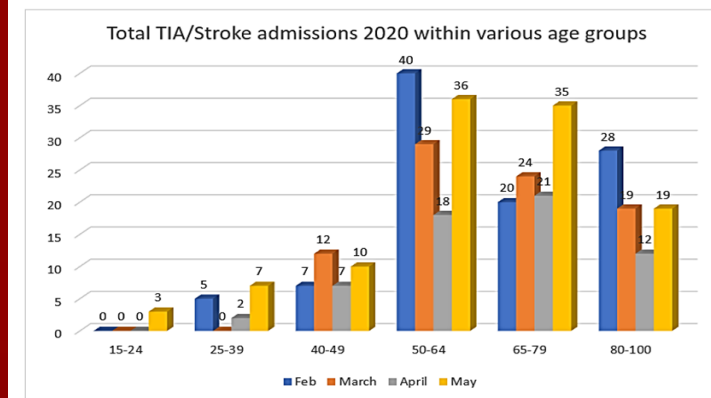


Figure 2 Total cases of stroke/TIA admitted through A&E department during period February 2020 to May 2020 within different age groups during novel coronavirus outbreak in Jamaica

4

## Results

There were 110 stroke /TIA admissions in February 2020. After the first COVID-19 case, Stroke/TIA admissions fell to 74 cases and 60 cases in March and April respectively. TIA/ stroke admissions in the < 50 years age groups rose from 12 cases in February to 20 cases in May, a 67% increase. In particular, for the age group 15-24 years there were 0 cases in February 2020 and 3 cases in May 2020.

5

## Conclusions

Our data suggests that while the pandemic is reducing the overall numbers of stroke presentations to hospital, there may be a tendency for an increase in stroke incidence in the age group 15-24 years. This may be related to the procoagulant effect of novel coronavirus infection among other factors. All patients with stroke in this age group should be tested for COVID-19 infection to confirm or refute this potentially important association.

6

## References

- Oxley T, et al Large-Vessel Stroke as a Presenting Feature of Covid-19 in the Young. *N England J Med.* 2020;382:e60. DOI: 10.1056/NEJMc2009787
- Kansagra AP, Goyal MS, Hamilton S, Albers GW. Collateral Effect of Covid-19 on Stroke Evaluation in the United States [published online ahead of print, 2020 May 8]. *N Engl J Med.* 2020;NEJMc2014816. doi:10.1056/NEJMc2014816
- Zhao J, Rudd A, Liu R. Challenges and Potential Solutions of Stroke Care During the Coronavirus Disease 2019 (COVID-19) Outbreak. *Stroke.* 2020;51(5):1356-1357. doi:10.1161/STROKEAHA.120.029701
- Ahmad Sweid, Batoul Hammoud, Joshua H Weinberg, Mazen Oneissi, Eytan Raz, Maksim Shapiro, Maureen DePrince, Stavropoula Tjoumakaris, Michael R Gooch, Nabeel A Herial, Hekmat Zarzour, Victor Romo, Robert H Rosenwasser, Pascal Jabbour. Letter: Thrombotic Neurovascular Disease in COVID-19 Patients. *Neurosurgery*, June 4, 2020; DOI: 10.1093/neuros/nyaa254