

Introduction: The SARS COV-2 outbreak has drastically altered mortality rates globally and much attention is now being given to the impact of vaccination on preventing COVID-19 related deaths. This study aims to analyze the demographic details, vaccination status and the mortality trends among forensic autopsies reported from Colombo suburbs where COVID-19 positivity was detected.

Method: A retrospective analysis was done on the postmortem databases of the department of Forensic Medicine, Colombo. All deaths which were reported during the months of April to August following confirmed COVID-19 infection or where postmortem PCR was detected to be positive during routine screening were included in the study. Those who had obtained at least one dose of any COVID – 19 vaccine, regardless of the time of vaccination were included in the vaccinated group.

Results: A total of 231 positive cases were identified. M:F ratio was 6:5. Median age was 73 years (3 1/2 months to 103) and >50% of cases were in the 61-80 age group. 78.8% of these deaths were non-vaccinated and only 4.8% had received both doses. There was no significant age difference or gender disparity between the non-vaccinated and vaccinated groups. COVID-19 was given as a direct cause of death in 132 (57.1%) and as a contributory cause in 61 (26.4%) of cases. COVID-19 was an incidental finding and not related to the death in 33 cases (14.3%) which included 3 accidental deaths and 2 suicides. There was a higher percentage of non-vaccinated individuals where COVID-19 was related to the death (85.1%) in comparison to the vaccinated individuals (77.5%) which however was not statistically significant.

Conclusion: There was a higher proportion of non-vaccinated individuals among the COVID-19 positive deaths reported during April to August. Although no significant difference was found, the study revealed that there is a higher probability of COVID-19 being a direct or contributory cause of death if non-vaccinated individuals were infected with the virus.