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## Letter to the Editor Regarding “Staying Home”—Early Changes in Patterns of Neurotrauma in New York City during the COVID-19 Pandemic<sup>1</sup>



### LETTER:

We congratulate Lara-Reyna et al.<sup>1</sup> for their timely shared experience with neurotrauma from before the coronavirus disease 2019 (COVID-19) pandemic and during the pandemic. A colossal shift has occurred in the pattern of practices for neurotrauma management during the COVID-19 pandemic. Additionally, our apparent impression has been that a decrease has occurred in the number of patients requiring neurosurgical interventions for neurotrauma-related conditions. This has been well supported by the findings reported by Lara-Reyna et al.<sup>1</sup> We would like to state that road traffic accidents have been the cause of more traumatic brain injury cases in low- and middle-income countries.<sup>2,3</sup> It is likely that the epidemiology in low- and middle-income countries will change correspondingly. According to 1 systematic review, road traffic accidents accounted for >50% of the neurotrauma cases and were double the number of cases resulting from falls.<sup>4</sup> As the authors observed, the experience from other trauma centers has identified falls at home as the most common mechanism and that strategies to prevent falls in the elderly should be devised and implemented.<sup>5</sup> Spinal injury is a more dynamic event than traumatic brain injury, and it will be interesting to further explore the paradigm shift in the epidemiology of spinal cord injury (if any).

Overall, the reduction in the numbers can be attributed to the restricted outdoor mobility resulting from the government guidelines during the COVID-19 pandemic.<sup>6,7</sup> Furthermore, the comparative reduction in the number of surgeries could have also resulted from the overall decrease in neurotrauma cases and also from do not resuscitate strategies for terminally ill patients.<sup>8,9</sup> The interesting finding from the study by Lara-Reyna et al.<sup>1</sup> is that the conversion rate to neurosurgical intervention was low and that an increase had occurred in the do not intubate and do not resuscitate orders (5.9% from before COVID-19 to 12.2% in the present COVID-19 era). It leaves us with many open questions, including whether we were over-intervening before the COVID-19 epidemic or are not performing enough interventions during the COVID-19 pandemic. The answer to this question will only be found by comparing the injury severity and overall outcomes (including mortality and functional outcomes). Observations have suggested that a significant number of neurotrauma cases are potentially preventable; thus, we could save

and optimize the use of much needed resources. We also have observed that the reduction in the incidence of neurotrauma cases (which requires more studies and objective evidence to support) has probably resulted from the restriction of nonessential activities, social distancing, less crowding, and restricted use of public and private transportation. Despite the limitations, the report by Lara-Reyna et al.<sup>1</sup> has provided a thought-provoking overview of the unique epidemiology of neurotrauma and the acute care rendered during a pandemic outbreak. This could be good opportunity for all of us to identify possible interventions to continue to reduce the occurrence of neurotrauma at large in society.

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