

MetroHealth Medical Center

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Abstract Submission Form

Poster Title: Effects of the COVID-19 Pandemic on Spinal Cord Injury Epidemiology and Outcomes

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Category: Clinical Research

Background:

The coronavirus disease 2019 (COVID-19) pandemic directly impacted accessibility, quality, and delivery of medical services worldwide. While current literature has focused mainly on perioperative and postoperative complications of patients during the COVID-19 pandemic little is known about the impact that the COVID-19 pandemic has had on the incidence of spinal cord injuries (SCI).

Objective:

The aim of this study is to quantify the pandemic's impact on the epidemiology and SCI outcomes.

Methods:

A retrospective cohort analysis was conducted using the TriNetX Analytics Network. 1:1 propensity score matching function was utilized to create two cohorts with matched baseline characteristics in the TriNetX network. Comparisons of primary and secondary outcomes of the two cohorts were made using odds ratios, and a p-value of <0.05 was determined to be significant.

Results:

COVID SCI patients were significantly older compared to pre-COVID patients (83.3 ± 4.2 vs 82.6 ± 4.6 , $p < 0.001$). There was no difference in the location of injury between COVID and pre-COVID SCI patients. COVID SCI patients were less likely to have a motor vehicle accident as the mechanism of injury compared to pre-COVID patients ($p = 0.071$). COVID SCI patients had a significantly higher rate of suicide ideation ($p = 0.005$), depression ($p = 0.002$) and substance abuse disorder ($p = 0.014$) compared to pre-COVID patients. COVID SCI patients reported significantly higher rates of chronic pain and mortality 1-year out from the SCI compared to pre-COVID patients.

Conclusion

The pandemic (and its associated social restrictions) has not influenced the patterns of spinal injuries treated during this time. However, patients were more likely to have a mental illness which might impact recovery from SCI. Specific emphasis should be placed on investigating potential associations between psychiatric factors such as depression and the impact it can have on the outcomes of SCI patients.