

Impact of the COVID-19 Outbreak on Acute Stroke Treatment in Switzerland

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Abstract

Background: In Switzerland, COVID-19 incidence during the first pandemic wave was higher than in neighbouring countries including Italy. To curb infections, the Swiss Federal Council declared a national lockdown from 13th of March 2020 to 26th of April 2020, with a major impact on all domains of daily life, including ramifications for medical service provision in general. We aimed to assess the impact of pandemic and lockdown on hospitalization rates, clinical characteristics and outcomes of acute stroke patients in Switzerland.

Methods: Retrospective analysis based on the Swiss Stroke Registry, which includes consecutive patients with acute cerebrovascular events (ischemic stroke, intracerebral hemorrhage and TIA) hospitalized in the Swiss Stroke Units and Stroke Centers. We compared the hospitalization rates and patient characteristics between the time epoch spanning from 13th of March 2020 to 26th of April 2020 (defined as the “lockdown period”) to the same epoch in the years 2015 through 2019.

Results: During the Swiss national lockdown, the weekly hospitalization rates for cerebrovascular accidents fell up to 25% compared to the corresponding time period in the years 2015–2019. During 3 consecutive lockdown weeks (weeks 11–13), hospitalization rates fell below the 5% quantile of the historical expectation. The likelihood of such an event is 0.38%. Onset to door time was longer, and – on admission – strokes were less severe. The rate of acute recanalization therapies and inhospital time metrics remained constant. Functional 3-month outcome did not differ between the lockdown period and previous years.

Conclusions: Even during a pandemic, it remains crucial to encourage patients to keep seeking emergency care for acute stroke symptoms and to ensure that pre- and inhospital stroke pathways are activated whenever necessary.