



## Challenges in Managing ST Elevation Myocardial Infarction During the COVID-19 Pandemic

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### Abstract

COVID-19 may contribute to delayed presentations of acute myocardial infarction. Delayed presentation with late reperfusion is often associated with an increased risk of mechanical complications and adverse outcomes. Inherent delays are possible as every patient who is acutely sick is being considered a potential case or a carrier of COVID-19. Also, standardized personal protective equipment (PPE) precautions are established for all members of the team, regardless of pending COVID-19 testing which might further add to delays.

We compared performance measures and outcomes of all patients who presented to our facility with ST elevation myocardial infarction (STEMI) during the COVID-19 pandemic to same time cohort from 2018 and 2018. There was a trend towards longer time interval from symptom onset to first medical contact (FMC) and time to first electrocardiogram (ECG) in the COVID-19 group. Peak troponin levels were significantly higher in the COVID-19 group ( $p = 0.04$ ). The likelihood of an in-hospital MACE was significantly higher among the COVID-19 group with 20% (3 of 16) patients experiencing an in-hospital MACE, while none occurred among the matched group ( $x^2 = 5.82$ ,  $df = 1$ ,  $p = 0.02$ ).

This single academic center study in the United States suggests that there is a delay in patients with STEMI seeking medical attention during the COVID-19 pandemic which is translating into worse clinical outcomes.

### Biography:

Aniruddha Singh is a key cardiology faculty at the University of Kentucky (UK) in Bowling Green. He is the chairman of the local research foundation (WKHL-RF) and is actively conducting research activities for the medical students, residents, and fellows. He is also the research assistant professor of Medicine at Vanderbilt University and is currently the PI for two multicenter randomized control trials. Dr Singh is also the internal medicine clerkship director for the 3rd year medical students at UK school of Medicine.

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