Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Spotlight on Special Topics

PRESENTATION DELAY AMONG PATIENTS WITH ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION OUTSIDE OF A COVID-19 HOT ZONE

Moderated Poster Contributions
Monday, May 17, 2021, 1:15 p.m.-1:25 p.m.

Session Title: Cardiac Arrest, STEMI and Other Emergencies During COVID-19: A "Wrinkle" in Time
Abstract Category: 61. Spotlight on Special Topics: Coronavirus Disease (COVID-19)
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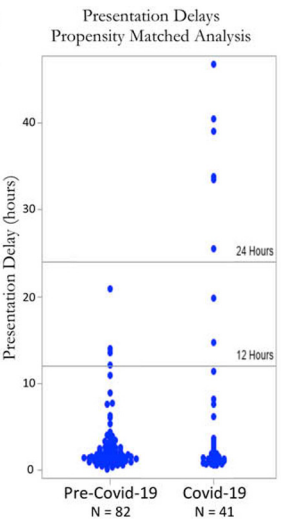
Background: Recent reports demonstrate fewer ST-elevation myocardial infarction (STEMI) presentations during the COVID-19 pandemic. It remains unclear whether the pandemic has directly reduced STEMI events or whether fewer STEMI patients are seeking care over fear of contracting the virus if hospitalized.

Methods: Consecutive STEMI patients presenting between January 1, 2016 and April 30, 2020 to a STEMI network spanning 13 counties in West Michigan were evaluated for presentation ≥12 hours, measure by the time from symptom onset to arrival at first medical facility. Patients in the pre-COVID-19 (before March 1, 2020) and COVID-19 time periods were compared at baseline and after 2:1 propensity score matching using binary logistic regression to account for patient-level differences.

Results: Among 1,309 STEMI patients presenting to the network during the study period, 1,268 (96.9%) presented pre-COVID-19 and 41 (3.1%) presented during the COVID-19 pandemic (Figure). Presentation delays ≥12 hours were 4.0% and 19.5%, and delays ≥24 hours were 0.2% and 14.6% in pre-COVID-19 and COVID-19 cohorts, respectively (p<0.001 for both). Similar findings were seen in matched analyses (Figure).

Conclusion: We observed STEMI patients are presenting later after symptom onset in the COVID-19 era. These observations indicate a need to provide additional public health messaging urging patients to seek immediate medical care for acute cardiac symptoms.

	Pre-COVID-19 N = 1,268	COVID-19 N = 41	p-value
Age (years)	63 ± 13	64 ± 12	0.43
Male	909 (71.7)	30 (73.2)	0.84
Caucasian	1,178 (92.9)	38 (92.7)	1.00
Height (cm)	173 ± 10	173 ± 10	0.98
Weight (kg)	90.4 ± 20.0	89.3 ± 18.9	0.71
Body mass index	30.3 ± 6.5	29.8 ± 5.4	0.64
Hypertension	843 (66.5)	30 (73.2)	0.37
Dyslipidemia	727 (57.3)	22 (53.7)	0.64
Diabetes mellitus	276 (21.8)	11 (26.8)	0.44
Current/former smoker	618 (48.7)	28 (68.3)	0.01
Currently on dialysis	12 (1.0)	0 (0.0)	1.00
Prior myocardial infarction	220 (17.4)	8 (19.5)	0.72
Prior PCI	271 (21.4)	10 (24.4)	0.64
Prior CABG	77 (6.1)	1 (2.4)	0.51
Presenting facility			
Hub hospital	823 (64.9)	30 (73.2)	0.27
Spoke Facility	445 (35.1)	11 (26.8)	



Left: Demographics reported by Pre-COVD-19 (Jan 2016-Feb 2020) and COVID-19 (March-April 2020) cohorts. P-values represent between group comparisons. Categorical data are expressed as n (%). Continuous data are expressed as mean ± standard deviation. Right: Swarm plot depicting time of symptom onset to hospital presentation in the propensity matched analysis. Analyses were adjusted for patient-level differences that may plausibly influence presentation delays including age, diabetes, smoking status, prior coronary disease, and presentation at a hub or spoke facility. CABG = coronary artery bypass grafting; PCI = percutaneous coronary intervention