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## Spotlight on Special Topics

### COVID-19 PANDEMIC STRESS CAN TRIGGER ACUTE CARDIOVASCULAR EVENTS IN NON-INFECTED INDIVIDUALS

Poster Contributions

Saturday, May 15, 2021, 9:45 a.m.-10:30 a.m.

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Session Title: Spotlight on Special Topics: COVID 1

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**Background:** The unprecedented spread of the COVID-19 pandemic on a global scale, lockdowns, and disease intensity have led to major psychosocial and economic stresses on individuals not infected with the virus. It is largely unknown if exposure to these stresses can potentially trigger acute cardiovascular events (CVE) in non-Covid-19 individuals.

**Methods:** We enrolled non-covid-19 patients who had an acute myocardial infarction (AMI), stroke, or sudden cardiac death (SCD) at 10 tertiary care centers in Jordan from mid-March through mid-November 2020 and who reported exposure to at least one of prespecified psychosocial and/or economic stresses related to the pandemic and its lockdown.

**Results:** Of 142 patients enrolled to date, 124 (87.3%) had AMI, 9 (6.3%) had CVA and 9 (6.3%) had SCD. The mean age of all patients was  $60.3 \pm 12.6$  years, and the majority were men (113, 79.6%). Prior CV disease was present in 64.1%, and at least one cardiovascular risk factor was present in 44% of patients. Among the AMI patients, 72.6% had percutaneous coronary intervention and 4.8% had coronary bypass surgery. The in-hospital mortality among the 133 patients who were alive on hospital arrival was 1.5%. The most common reported triggering events included lockdown and loneliness stress (70.4%), financial hardships and volatile income (39.4%), smoking binge (21.4%), anger (16.2%), fear of contacting covid-19 infection (12.7%) and heavy physical exertion (7.7%). Other triggers reported by less than 5% of patients included food binge, death of a significant person, and hopelessness. Exposure to at least 2 triggers was reported by 28.2% of patients.

**Conclusion:** The COVID-19 pandemic will continue to be a major source of vicarious psychosocial and economic hardships that can potentially trigger acute CVE among individuals not infected with the covid-19 virus. Larger studies are needed to evaluate the prevalence of these triggered events in larger cohorts during this unremitting pandemic.