

OR68. The impact of coronavirus disease 2019 pandemic on acute coronary syndrome hospitalizations, treatments, and outcomes: a dual-center observational study

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Background and Aims: Since March 2020, transmission of coronavirus disease 2019 (COVID-19) in Indonesia have led to substantial decline in non-COVID-19 hospitalizations and healthcare services. We ought to determine the impact of COVID-19 pandemic on acute coronary syndrome (ACS) hospitalizations, treatments, and outcomes.

Methods and Results: We conducted a dual-center observational study in Bogor City General Hospital and Kediri General Hospital, Indonesia. We included all ACS patients between January-June 2020. Subjects were divided into two groups: pandemic period (admitted in March-June 2020) and pre-pandemic period (admitted in January-February 2020). 279 subjects were involved (107 pandemic vs 172 pre-pandemic). Monthly average ACS admissions reduced by 68.6% during pandemic period compared to pre-pandemic period. Proportion of STEMI subjects was significantly higher during pandemic compared to pre-pandemic (56.1% vs 38.4%; $p=0.004$). Proportion of Killip 3-4 subjects was also significantly higher during pandemic compared to pre-pandemic (26.2% vs 14.5%; $p=0.016$). However, reperfusion therapy (PCI or fibrinolytic) proportion for STEMI subjects was significantly lower during pandemic compared to pre-pandemic (16.7% vs 31.8%; $p=0.049$), although there was no significant difference in onset time of ACS symptoms before hospitalization ($p=0.793$). In-hospital mortality rate was significantly higher during pandemic compared to pre-pandemic (15.9% vs 8.1%; $p=0.045$).

Conclusion: There was a significant decline in ACS hospitalizations, increased proportion of STEMI and Killip 3-4 patients, and higher in-hospital mortality rate in the pandemic period compared to pre-pandemic period. Paradoxically, reperfusion therapy proportion in STEMI patients has reduced significantly during pandemic period.

Keywords: Acute coronary syndrome • COVID-19 • hospitalization • in-hospital mortality • reperfusion.