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.

ACC22
APRIL 2 - 4 | WASHINGTON, DC

2099
JACC March 8, 2022
Volume 79, Issue 9, suppl A

Spotlight on Special Topics

IMPACT OF RENIN-ANGIOTENSIN SYSTEM INHIBITORS ON MORTALITY DURING THE COVID PANDEMIC AMONG DIABETIC PATIENTS WITH STEMI UNDERGOING MECHANICAL REPERFUSION: INSIGHT FROM AN INTERNATIONAL STEMI REGISTRY

Poster Contributions
For exact presentation time, refer to the online ACC.22 Program Planner at https://www.abstractsonline.com/pp8/#!/10461

Session Title: Spotlight on Special Topics Flatboard Poster Selections: COVID
Abstract Category: 61. Spotlight on Special Topics: Coronavirus Disease (COVID-19)

Authors: *Giuseppe De Luca, Matteo Nardin, Magdy Algowhary, Berat Uguz, Dinaldo Cavalcanti Oliveira, Vladimir Ganyukov, Zan Dimitar Zimbakov, Miha Cercek, Lisette Okkels Jensen, Poay Huan Loh, Lucian Calmac, Gerard Roura, Alexandre Schaan Quadros, SR, Marek Milewski, Fortunato Scotto di Uccio, Clemens von Birgelen, Gustavo Pessah, Bernardino Tuccillo, Giuliana Cortese, Guido Parodi, Mohammed Bouragdha, Elvin Kedhi, Pablo Lamelas, Harry Suryapranata, Monica Verdoia, Università del Piemonte Orientale, Novara, Italy*

Background: During the coronavirus disease 2019 (COVID-19) pandemic, concerns have been arisen on the use of renin-angiotensin system inhibitors (RASI) due to the potentially increased expression of Angiotensin-converting-enzyme (ACE)2 and patient's susceptibility to SARS-CoV2 infection. Diabetes mellitus have been recognized favoring the coronavirus infection with consequent increase mortality in COVID-19. No data have been so far reported in diabetic patients suffering from ST-elevation myocardial infarction (STEMI), a very high-risk population deserving of RASI treatment.

Methods: The ISACS-STEMI COVID-19 registry retrospectively assessed STEMI patients treated with primary percutaneous coronary intervention (PPCI) in March/June 2019 and 2020 in 109 European high-volume primary PCI centers. This subanalysis assessed the prognostic impact of chronic RASI therapy at admission on mortality and SARS-CoV2 infection among diabetic patients. Trial registration number: NCT 04412655

Results: Our population is represented by 3,812 diabetic STEMI patients undergoing mechanical reperfusion, 2,038 in 2019 and 1,774 in 2020. Among 3,761 patients with available data on chronic RASI therapy, between those ones with and without treatment there were several differences in baseline characteristics, (similar in both periods) but no difference in the prevalence of SARS-CoV2 infection (1.6% vs 1.3%, respectively, p=0.786). Considering in-hospital medication, RASI therapy was overall associated with a significantly lower in-hospital mortality (3.3% vs 15.8%, $p < 0.0001$), consistently both in 2019 and in 2010.

Conclusion: This is first study to investigate the impact of RASI therapy on prognosis and SARS-CoV2 infection of diabetic patients experiencing STEMI and undergoing PPCI during the COVID-19 pandemic. Both pre-admission chronic RASI therapy and in-hospital RASI did not negatively affected patients' survival during the hospitalization, neither increased the risk of SARS-CoV2 infection.