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## Spotlight on Special Topics

### IMPACT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE ON SHORT-TERM OUTCOME IN PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION DURING COVID-19 PANDEMIC: INSIGHTS FROM THE INTERNATIONAL MULTICENTER ISACS-STEMI REGISTRY

Poster Contributions

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

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Session Title: Spotlight on Special Topics Flatboard Poster Selections: COVID

Abstract Category: 61. Spotlight on Special Topics: Coronavirus Disease (COVID-19)

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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 Bouragha, Elvin Kedhi, Pablo Lamelas, Harry Suryapranata, Monica Verdoia, Università del Piemonte Orientale, Novara, Italy*

**Background:** Chronic obstructive pulmonary disease (COPD) is projected to become the third cause of mortality worldwide. COPD shares several pathophysiological mechanisms with cardiovascular disease, especially atherosclerosis. However, no definite answers are available on the prognostic role of COPD in the setting of ST elevation myocardial infarction (STEMI), especially during COVID-19 pandemic, among patients undergoing primary angioplasty, that is therefore the aim of the current study.

**Methods:** In the ISACS-STEMI COVID-19 registry we included retrospectively patients with STEMI treated with primary percutaneous coronary intervention (PPCI) between March and June of 2019 and 2020 from 109 high-volume primary PCI centers in 4 continents. Trial registration number: NCT 04412655

**Results:** A total of 15686 patients were included in this analysis. Of them, 810 (5.2%) subjects had a COPD diagnosis. They were more often elderly and with a more pronounced cardiovascular risk profile. No preminent procedural dissimilarities were noticed except for a lower proportion of DAPT at discharge among COPD patients (98.9% vs. 98.1%,  $P=0.038$ ). With regards of short-term fatal outcomes, both in-hospital and 30-days mortality occurred more frequently among COPD patients, similarly in pre-COVID and COVID era. However, after adjustment for main baseline differences, COPD did not result as independent predictor for in-hospital death (adjusted OR [95% CI] = 0.913[0.658 - 1.266],  $P=0.585$ ) nor for 30-days mortality (adjusted OR [95% CI] = 0.850 [0.620 - 1.164],  $P=0.310$ ). No significant differences were detected in terms of SARS-CoV2 positivity between the two groups

**Conclusion:** This is one of the largest studies investigating characteristics and outcome of COPD patients with STEMI undergoing primary angioplasty, especially during COVID pandemic. COPD was associated with significantly higher rates of in-hospital and 30-days mortality. However, this association disappeared after adjustment for baseline characteristics. Furthermore, COPD did not significantly affect SARS-CoV2 positivity.