Acute coronary syndrome in COVID-19 patients. Clinical features, severity and outcomes. Results from Spanish multicenter registry Car-COVID19

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Introduction: COVID19 has spread uncontrollably all over the world through this 2020 year. As a new entity, we did not know the potential cardiovascular manifestations of this infectious disease. This national registry was created to describe the cardiac affection and its severity.

Methods and results: A multicenter registry was conducted, including 28 centers in Spain. Patients with COVID19 diagnosis presenting an acute cardiovascular event between March 1st and May 30th were included. Eighty-two patients were included. Of them, 49 (76,6%) presented with acute coronary syndrome; the rest were diagnosed of acute myocarditis or stress cardiomyopathy. The majority of cases were STE-MI (n = 31), while the remaining 35,4% presented as NSTEMI. 29 patients (61,7%) underwent emergent percutaneous coronary intervention (PCI) (Figure 1). Anterior (n = 18) and inferior (n = 16) were the most frequent locations. Coronary angiogram showed total occlusion in 20 patients (55,6%); while 7 patients presented with non-obstructive coronary arteries. PCI was done in 31 patients.

Eight patients (17,8%) developed Killip III-IV myocardial infarction. A total of 10 patients required endotracheal intubation and vasoactive agent were needed in 11 patients; none required IABP or ECMO. In-hospital mortality rate was 26,2%.

Conclusions: Patients with COVID19 may present with acute coronary syndromes. This entity has a poor prognosis, with noteworthy mortality.

Table 1. Baseline characteristics.

	n (%)
Age	69,0[63,0-76,5]
Sex (female)	9 (19,1%)
Hypertension	28 (57,1%)
Dyslipidemia	25 (51,0%)
Diabetes mellitus	11 (22,4%)
Chronic coronary disease	10 (20,4%)
Previous PCI	10 (20,4%)
Previous CABG	0
Previous AAS	15 (30,6%)
Smoking	10 (20,4%)

PCI: percutaneous coronary intervention; CABG: coronary artery bypass graft; AAS: aspirin. Abstract Figure 1.

