

EDITORIAL

COVID-19 and its impact on acute coronary syndromes

Michael Y Henein, MD, MSc, PhD, FESC, FRCP
Institute of Public Health and Clinical
Medicine, Umea University, Umea, Sweden

The COVID-19 pandemic started at the end of 2019 and remains carrying a health threat and significant economic consequences. Over the last two years, COVID-19 has been the main Public Health issue, and has impacted regular healthcare systems, with unprecedented build-up of waiting lists and delay in optimum management of other serious routine and acute medical conditions including heart diseases and cancer.

For cardiovascular diseases, COVID-19 pandemic had impacted the incidence and treatment of acute coronary syndromes (ACS). A consistent reduction in the rate of ACS presentation to hospitals has been recorded all over the world. Also, a considerable delay in the treatment of patients with ST elevation myocardial infarction (STEMI), compared to the pre-COVID-19 era, has been reported. This is mostly explained by limited access to emergency medical services and the lack of effective clinical management strategies with personnel getting retrained to manage admitted COVID-19 cases. Several studies have shown that, during COVID-19 pandemic, the time from the onset of symptoms to first medical contact and primary percutaneous coronary intervention (PCI) prolonged significantly¹.

This may be related to the following issues:

1. *Clinical misdiagnosis*: In the absence of conventional STEMI chest pain, respiratory symptoms may be initially attributed to COVID-19, hence missing the diagnosis of myocardial infarction and delay in its treatment. In addition, COVID-19 itself carries a significant short-term risk of myocardial injury and infarction, particularly in patients with existing coronary artery disease and/or pro-inflammatory cardiovascular risk factors (such as diabetes mellitus, hypertension, and obesity)²;
2. *Patients fear to present to Emergency department*: the fear of COVID-19 infection transmission has refrained many patients with unclear symptoms of ACS to seek hospital care, which resulted in late presentation and consequently treatment. This may have also lead to increase in long-term consequences of myocardial infarction, including post-ischaemic heart failure, with serious complications including death³⁻⁵
3. *Organization*: While interventional procedures may be more complex in COVID-19 compared to non-COVID patients, there has been controversial international opinion on clear indications for treatment of ACS during the COVID-19 pandemic.

Although clinical experience based on scientific knowledge of COVID-19 has significantly improved, accurate diagnosis and management of long COVID remains to be accurately determined.

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