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Letter to the Editor Regarding: Acute Coronary Syndrome in the COVID-19 Pandemic: Reduced Cases and Increased Ischaemic Time by Sutherland et al. Heart Lung Circ. 2022;31(1):69-76

To the Editor,

Sutherland and colleagues recently reported a reduction in patients admitted with acute coronary syndrome (ACS) and an increase in total ischaemic time during the first and second wave of the COVID-19 outbreak in Melbourne [1]. They also observed a 20% rebound increase in ACS presentations following the relaxation of public health restrictions in November–December 2020 compared to the same period of 2019 and suggested that this could represent long-term sequelae of untreated ACS including reinfarction and heart failure. However, several additional mechanisms could play a role.

Daily Life Triggers

A trend of reduced hospitalisations for all ACS types during the pandemic has been observed worldwide [1–3]. Besides social distancing, stay-at-home orders, and fear of acquiring the infection, attenuated exposure to well-recognised ACS triggers, particularly reduced air pollution, and decreased physical and work activities, has been linked to this phenomenon [3,4]. The alleviation of restrictions after the pandemic waves restored the level of exposure to ACS triggers which could have contributed to a gradual increase in ACS hospitalisations [4]. Moreover, fear of lack of medical care, lockdown stress, anger, loneliness, job loss, financial stress, and binge smoking have been suggested as ACS triggers due to the ramification of the pandemic [5]. Along this line, a post-restriction increase in hospitalisations for ST-segment elevation myocardial infarction has been documented in Israel [2].

Population Vulnerability

Anti-pandemic measures favour sedentary behaviour, physical inactivity, unhealthy nutritional habits, weight gain, and increased alcohol consumption, as confirmed by recent meta-analyses [6,7]. Consequent negative effects on metabolism likely worsened the population's cardiovascular health and, given their presence for over a year now, could have increased the number of vulnerable coronary patients [4]. Accordingly, increased population cardiovascular vulnerability coupled with enhanced exposure to ACS triggers could be important mechanisms of a rebound increase in ACS.

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