How lessons from past helped in shaping management plans for COVID patients: Tertiary care experience translated to primary care application

Working in a tertiary limited resource setting has made us evolve our innovative ideas for managing various diseases. In our country, because of its vastness and limited health care facilities, very few patients with ST elevation myocardial infarction (STEMI) reach the hospital on time to avail the facility of primary percutaneous coronary intervention (PCI).[1] This led us to evolve a different management strategy in which patients are thrombosed first at the first contact within 24 hours followed by infusion of GPIIa3b inhibitors and then by PCI. Before taking the patient for PCI, all co-morbidities are treated first, and then PCI is undertaken. This strategy provided us with the least mortality in acute coronary syndrome patients in our centre.[2] During the beginning of the pandemic, many COVID patients presented with the acute coronary syndrome. They were taken for primary PCI as per institutional protocol, which led to the spread of the infection in other patients as well as physicians, leading to mortality in both.[3] We never faced such a scenario as we had a systematic management plan for acute coronary syndrome (ACS) patients in both pre-COVID and COVID era. This was later adopted by many national and international guidelines.

Mortality in COVID patients was initially an enigma as the exact pathogenesis was not clear. Initially, we hypothesized that the cause of ARDS in patients was probably related to thrombosis in the pulmonary arteries, and there could be a possible role of antithrombotics in its management. Later on, autopsy studies confirmed this as a hypercoagulable state,[4] and antithrombotics became a part of routine management and guidelines even in COVID recovered patients.

The beginning of the pandemic led to the speculation that the course of illness is likely predominated by viral illness, so there is no role of antibiotics, but as in our routine CCU management process, we add or upgrade antibiotics on the basis of the clinical scenario and not on the basis of blood culture of procalcitonin. Many COVID patients have succumbed during this pandemic due to secondary sepsis because, for clinicians, a TLC of 10,000 was normal but in fact, in a viral illness, when TLC should ideally be below the normal values, any valve in the above normal range is likely secondary infective in origin. So judicious and timely addition of potent antibiotics led to survival benefits even in the sickest subset of patients.

In our cardiology practice, we have always stressed on the role of anemia correction, and we have sought to maintain a higher value of haemoglobin in our patients. Over a period of years, we have seen that these patients have improved survival and good quality of life. The same hypothesis holds true even in patients with COVID, where, in studies analyzing mortality, we have seen better survival in patients with higher haemoglobin. We routinely administer intravenous iron infusion in COVID infected and recovered patients.

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Conflicts of interest

There are no conflicts of interest.

Yash Paul Sharma[1], Prashant Panda[1], Navjot Kaur[1], Krishna Prasad[2], Gautam Vinay[3]

[1]Department of Cardiology, PGIMER, Chandigarh, [2]Department of Cardiology, AIIMS, Raipur, Chhattisgarh, [3]Department of Gastroenterology, AIIMS, Rishikesh, Uttarakhand, India

Address for correspondence: Yash Paul Sharma, Department of Cardiology, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, India.
E-mail: sharmayashpaul@yahoo.co.in

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