EDITORIAL

Critical Illness in COVID-19: A Sobering Experience for the Intensivist

Bhuvana Krishna

Indian Journal of Critical Care Medicine (2021): 10.5005/jp-journals-10071-23983

The first coronavirus disease-2019 (COVID-19) case in India was reported on January 30, 2020, from then till date India has reported more than 3,197,000 confirmed cases with 4,28,700 deaths.[1] The severity of COVID-19 infection ranges from mild flu-like symptoms to severe pneumonia, acute respiratory distress syndrome (ARDS), and multi-organ failure requiring intensive care unit (ICU) admission. The ICU admission rates for patients hospitalized with COVID-19 infection ranged from 6–30%,[2–4] with an average of 21% as reported from a global review.[5]

Although COVID-19 is a global pandemic, the burden of the disease has not been uniform throughout the world. Regions that reported rapid community spread led to overburdening of the healthcare systems, with an exponential need for critical care facilities.

The COVID-19 infection is caused by a newly discovered coronavirus. Epidemiological data became imperative to bridge knowledge gaps with respect to risk factors, clinical spectrum, morbidity, and mortality of hospitalized COVID-19 patients. Early and transparent data sharing of characteristics and outcomes of critically ill COVID-19 patients would help fellow physicians in other regions to anticipate and plan resources and treatment strategies.

Initial epidemiological research publications reported older age, male gender, and hypertension as risk factors for developing severe COVID-19 infection.[2,4,6] The research paper by Pandit et al. reports the experience from a tertiary care hospital in Mumbai, India, in managing critically ill COVID-19 patients.[7] It is interesting to note that the maximum number of patients admitted to the ICU was in the 40–60 years of age-group (46.8%), and diabetes was reported to be the most common comorbidity followed by hypertension. The ICU mortality was only 10.15% as compared to the results from a recent large meta-analysis that showed an ICU mortality of 40.5%[8] in these patients. The observed lower mortality could be attributed to the age-group and the low numbers with severe ARDS (13.42%). The authors also discuss important reasons for the observed lower mortality–patients presenting early in the disease to the hospital, strict adherence to infection control, and prudent resource allocation.

Existing evidence has shown that severe ARDS of any etiology has a high mortality (46.1%).[9] A recent large trial from Florida had reported much lower ICU mortality in critically ill COVID-19 patients (19.8%), as compared to other states or the rest of the world.[10] This lower ICU mortality was attributed to several reasons, like younger age, ethnicity, and higher socioeconomic strata of the admitted patients. It was also highlighted in the study that their healthcare systems were never overburdened, and there was sufficient time available to prepare, train manpower, and provide quality care. Strict ARDS ventilation and infection control protocols were also followed.

Another recent meta-analysis had reported lower global ICU mortality in COVID-19 patients (28%).[11] Then, is the ICU mortality of patients with severe ARDS due to COVID-19 is low, as compared to other causes of ARDS? The heterogeneity in the population, burden of infection, and disparity in availability, accessibility, and provision of care will never give us the true answer.

The lessons learned from these studies showing lower ICU mortality are priority in the prevention of rapid spread in the community, so healthcare facilities are not overburdened. This will enable good triaging, early initiation of treatment, and adherence to standard ICU care, simultaneously providing sufficient time and resources, for building surge capacity. These factors could reduce ICU mortality in critically ill COVID-19 patients.

Department of Critical Care Medicine, St John's Medical College and Hospital, Bengaluru, Karnataka, India

Corresponding Author: Bhuvana Krishna, Department of Critical Care Medicine, St John's Medical College and Hospital, Bengaluru, Karnataka, India, Phone: +91 9945693221, e-mail: bhuvana.11@gmail.com

How to cite this article: Krishna B. Critical Illness in COVID-19: A Sobering Experience for the Intensivist. Indian J Crit Care Med 2021;25(9):965–966.

Source of support: Nil

Conflict of interest: None

Orcid

Bhuvana Krishna https://orcid.org/0000-0002-0003-6797

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