problems in the pulmonary gas exchange system.37 Abnormalities in gas exchange in diseased lungs may stem from shunting of blood through unventilated vessels, non-uniform distribution of ventilation or perfusion, or both, throughout the lungs, and diffusion abnormality of O2 exchange across the alveoli walls.38 More than one mechanism may be involved in lung diseases, and the lower the PaO2/FiO2 ratio, the more severe the lung injury.[37]Non-survivors had greater rates of shock vasopressor use and renal replacement therapy and stayed longer in the ICU than survivors.

Limitations:

Study marker in critically ill patients with acute respiratory distress syndrome. There are several limitations to this research. First, it constitutes a single-centre study with a short number of cases, and our findings may not apply to the general population. Additionally, potentially important prognostic factors, such as pulmonary function tests, outpatient medications and daily living activities, were not included.

In conclusion, the findings of this study showed that in ICU admissions for COPD patients with acute hypercapnic respiratory failure for any reason, the patients had high disease severity scores. Non-survivors had greater rates of pneumonia, shock within the first 24 hours of admission, IMV, vasopressor use and renal replacement therapy, received more fluid, stayed longer in the ICU and the hospital, and had higher APACHE II scores but lower admission albumin and PaO2/FiO2 values than survivors. APACHE II scores, admission PO2/FiO2 ratio, and vasopressor use as significant ICU mortality predictors. In addition, nearly half of our patients required IMV, and one-fifth died in the ICU. The rates of pneumonia, IMV, vasopressor use and renal replacement therapy were higher in non-survivors than in the survivors. Additionally, non-survivors had high APACHE II scores, lengthy ICU and hospital stay, and low PaO2/FiO2 ratios and albumin levels. APACHE II scores, vasopressor use, and the PaO2/FiO2 ratios emerged as predictors for ICU mortality.

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