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Letter to the Editor

Weaning outcome of solid cancer patients requiring mechanical ventilation in the ICU: Other factors to explore

We have read with great interest this study which analyzes weaning of mechanical ventilation in patients with solid cancer.¹ It makes an important contribution to allow establishing prognostic parameters and optimizing treatment options. However, if we analyze the data provided in the global descriptive analysis of the study, there are some points that we believe warrant consideration.

We consider the weaning mode to be important factor in liberating patients from MV. Recent data show that pressure support SBT was superior to T-piece ventilation.² An analysis of the method of weaning including T-piece, pressure support or NIV for weaning mechanically ventilated patients with cancer would provide useful information in this patient population. Furthermore, the mean number of days to successful weaning was high for all patients including non-cancer patients (21.2 days- 95% CI 19.5–22.0). This is longer than expected for ICU related MV and warrant an explanation.³

Tracheostomy rates were similar between cancer and non-cancer patients, but as expected higher in the HNC subgroup. It would be useful to know the criteria for establishing tracheostomy in this patient population. There are also no data provided on extubation failure and rate of re-intubation and whether these events affected outcome in this solid cancer cohort.

The mechanically ventilated lung cancer patients pose a special situation. Although the overall prognosis of this group is poor, there has been improvement in their outcomes.⁴ The current study shows that this group had the least success in weaning at 90 days (49%), the highest mortality at 90 days (71.2%), and the longest median stay in the ICU (16 days). The mortality rate is higher than recent studies.^{4,5} It would be useful to provide further analysis on this group of patients such as the cancer stage, reason for MV including if it was related to airway involvement by

tumor or not, and if any interventions to relieve airway obstruction such as stents or endobronchial treatment were performed on these patients. Also, it is helpful to know if these patients received anti-cancer treatment during their ICU stay and whether this had impact on weanability and mortality outcome. A recent study showed that among lung cancer patients requiring mechanical ventilation, those receiving chemotherapy had higher weaning rates, and in multivariate analysis, receipt of chemotherapy (hazard ratio [HR], 0.443; $p = 0.083$) and mechanical ventilation (HR, 0.270; $p = 0.022$) were significantly associated with longer ICU survival after adjusting for clinical factors.⁶ Similar findings were reported in other studies.^{7,8}

Conflicts of interest

The authors have no conflicts of interest relevant to this article.

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