





1-year survival, quality of life and functional recovery of COVID-19 patients

M. Rocchi¹, O. Belloni¹, M. Di Piazza¹, M. Fedrizzi¹, A. Bonaccorso¹, S. Gattarello¹, F. Orlando¹, C. Nicolai¹, G. Landoni^{1,2}, A. Zangrillo^{1,2}

¹ Department of Anesthesia and Intensive Care, IRCCS San Raffaele Scientific Institute, via Olgettina 60, 20132, Milan, Italy ² School of Medicine, Vita-Salute San Raffaele University, Milan, Italy

Background



Patients with coronavirus disease 2019 (COVID-19) frequently develop severe acute respiratory distress syndrome (ARDS) requiring intensive care unit (ICU) admission. Data on long-term survival of these patients are currently lacking. We performed an observational study to investigate 1-year survival, quality of life and functional recovery of COVID-19 patients requiring invasive mechanical ventilation.

Methods

All COVID-19 ARDS patients (admitted between February 25th, 2020 and April 27th, 2020) who received invasive mechanical ventilation and were discharged alive from hospital were contacted by phone after 2-months and 1-year from admission to receive a follow-up questionnaire. Items explored by the questionnaire included quality of life (Euro Quality 5 Dimensions 3 Levels), dyspnea (Borg scale), physical recovery (Glasgow Outcome Scale extended, GOSe), anxiety/depression (Hospital Anxiety and Depression scale), cognitive status (Mini-Mental State Examination), and working status.

A total of 116 COVID-19 ARDS patients received invasive mechanical ventilation during the study period, and 61 (52.6%) survived to hospital discharge. All 61 patients were alive at 1-year followup and 56 completed the questionnaire. More than 80% of patients showed an overall good functional recovery. A total of 52 (93%) of patients had no dyspnea at rest, while 16 (28.5%) reported dyspnea (from "light" to "very strong"). A total of 5 (8.9%) of patients reported severe anxiety/depression. All patients who were working before disease (31 [56%]) were back to their previous work. Comparing 2months and 1-year data, we observed the most significant improvements in the areas of working status, exertional dyspnea, and recovery according to GOSe.

Conclusions

1-year mortality from COVID-19 ARDS is extremely low for patients who survived the acute phase of the disease. Overall recovery and quality of life of survivors are good after 1-year, with only 10-15% of patients reporting significant functional limitations. Recovery seems better than for non-COVID-19 ARDS.

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