

COVID-19 Associated Air Leak Problems.

Pleura

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OBJECTIVES

As the number of publication and experience related to the new type of coronavirus (COVID-19) increases, the knowledge of the virus and its complication is also increase. Pneumothorax and mediastinal emphysema are among these complications. Here, we aimed to analyze pleural and mediastinal air leak occurred in patients who hospitalized for Covid-19 pneumonia.

METHODS

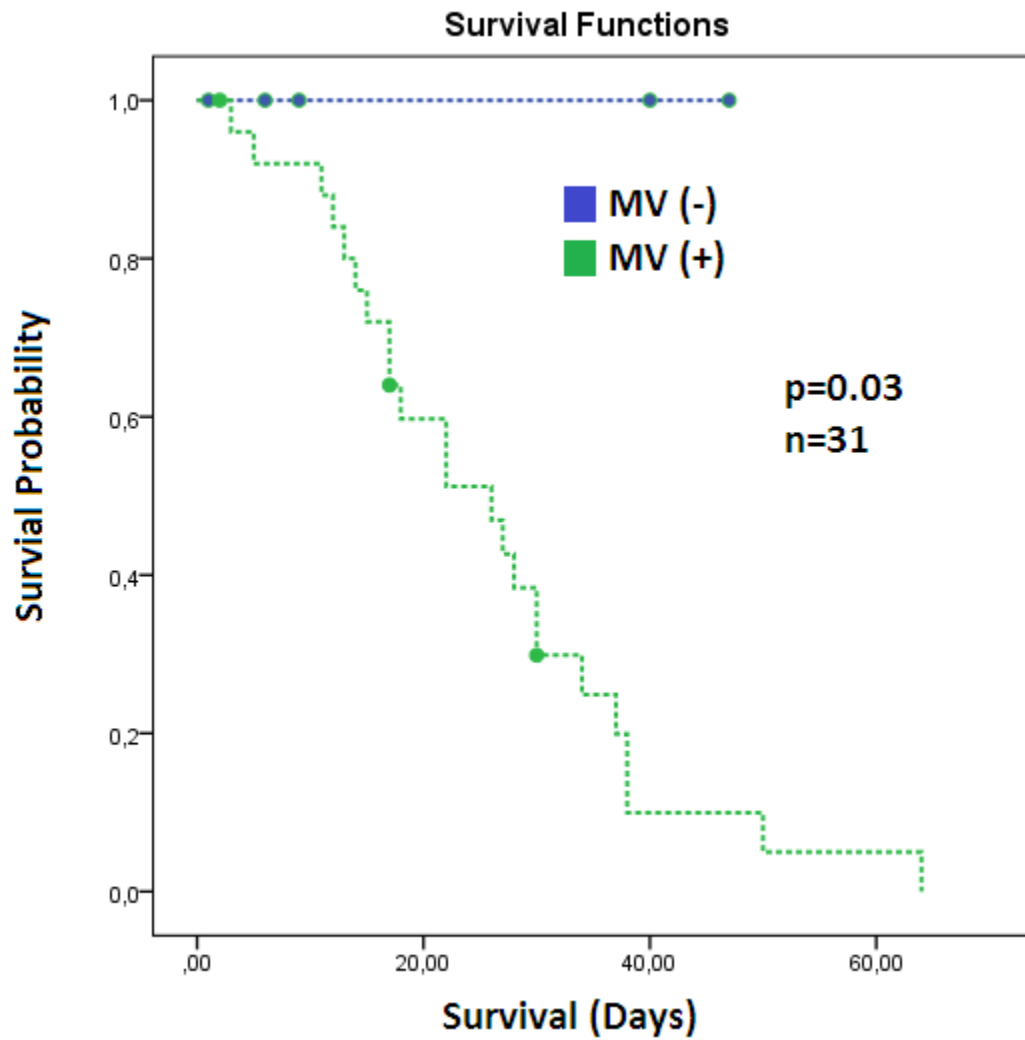
The records of patients with Covid-19 pneumonia complicated by pneumothorax and pneumomediastinum between March 2020 and December 2020 were reviewed retrospectively. Patients who had iatrogenic pneumothorax due to central venous catheter, thoracentesis etc., and those with non-COVID-19 viral or bacterial pneumonia were not included in the study. The data of the patients were analyzed according to age, gender, treatment method, mortality, days of hospitalization, tube thoracostomy duration, and whether a mechanical ventilator is used.

RESULTS

A total of 31 patients were included the study. There were 11 female, 20 male. The median age was 68 (31-90) years. Pneumothorax and pneumomediastinum were detected in 22 and 7 patients respectively. The co-existence of pneumothorax and pneumomediastinum were determined in 2 patients. Invasive or noninvasive mechanical ventilator was needed in 26 patients. The side of pneumothorax was right 13 patients, left in 9 patients and bilaterally in 2 patients (24). Treatment method in all patients with isolated pneumomediastinum and in 2 patients with pneumothorax was conservative. Tube thoracostomy was performed for other 22 patients with pneumothorax. The median hospitalization and tube thoracostomy duration was 22 (1-61) days and 10 (1-29) days respectively. The mortality was occurred in 23 patients (74.2%) in our series. Tube thoracostomy was successfully removed in 7 patients. The mortality was significantly high in patients under mechanical ventilator than others (Figure, $p=0.03$).

CONCLUSIONS

The mortality rate is considerably high in patients with COVID-19 pneumonia complicated with pneumomediastinum and/or pneumothorax. Mechanical ventilation significantly increases the mortality in these patients.



The mortality rate was significantly higher in patients under mechanical ventilator. (MV +: Patients with mechanical ventilator MV -: Patients without ventilator)