Abstract

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The Lung Ultrasound (LUS) Score Predicts Clinical Outcome in COVID-19 Patients: The Experience of Our Covid Center

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Introduction: Bedside lung ultrasound (LUS) is a useful and non-invasive tool for rapid evaluation of many chest conditions. Following the onset of the COVID-19 pandemic, the use of LUS has become common practice for evaluating lung involvement and for monitoring changes in COVID-19 patients. The prognostic role of LUS in COVID-19 patients has not yet been established.

Methods: We retrospectively analysed records from 448 patients (mean age 66,08) with confirmed COVID-19 by nasopharyngeal swab, admitted to our ward of COVID Medicine Unit at Ospedale del Mare in the town of Napoli between March 2020 and May 2021. We performed LUS on all patients with COVID-19 using a 14-zone method (Soldati score from 0 to 42 points) at the admission in COVID Medicine Unit within 3 days from the onset of symptoms. We evaluated the difference in LUS score between the death and survival groups.

Results: The mean LUS scores were 30, 93±5.01 and 21, 53± 7.85 in the death group compared with the survival group (weighted mean difference (WMD) = 9.51, 95% CI=8.20-10.82, P value <0.0001).

Conclusions: The LUS score in our COVID- 19 population was associated with mortality. LUS score is important for the risk stratification in COVID-19 patients.