MALNUTRITION RISK AS A NEGATIVE PROGNOSTIC FACTOR IN COVID-19 PATIENTS

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Background/Objective: SARS CoV-2 infection is a disease, whose prevalence has drastically risen in the past year. The aim of this study is to examine a possible association between the risk of malnutrition, clinical outcomes following hospitalisation and morbidity at discharge.

Methods: This study has analysed the medical records of 652 patients hospitalised at Humanitas Research Hospital (Milan, Italy) between 01/03 and 30/04/2020. The risk of malnutrition was identified with the Malnutrition Universal Screening Tool (MUST).

Results: The cohort was composed of 515 patients. The MUST scale is significantly associated to malnutrition evaluating the morbidity at discharge (discharged 0.27 ± 0.68, discharged with problems 0.40 ± 0.93, deceased 0.64 ± 0.93, p<0.001), and the clinical outcome following hospitalisation (HR 1.25, 95% CI 1.04-1.51, p=0.019) is maintained even after correction for age, treated hypertension, admission to an intensive care unit and oxygen therapy). A subgroup analysis addressing patients with a BMI $\geq$ 30 shows a significant association between comorbidities such as: arterial hypertension (HR 4.95, 95% CI 1.10-22.22, p=0.037), diabetes (HR 3.37, 95% CI 1.04-10.89, p=0.043) and renal failure (HR 3.94, 95% CI 1.36-11.36, p=0.011).

Conclusions: The results of this study suggest that the risk of malnutrition is a noteworthy indicator that impacts both the clinical outcomes and morbidity at discharge.

Keywords: Malnutrition – SARS-CoV-2 – infection – immune system – obesity – ACE2.

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