

Category : **Emergency room**

A176 - Neutrophil-to-lymphocyte ratio on admission to predict mortality of covid-19 patients admitted to the emergency department

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Introduction:

COVID 19 is a pandemic declared in 2020, the gravity of which lies in the risk of developing a cascade of complications in 20% of cases, which can lead to death. These complications result from an inadequate immuno-inflammatory reaction. Several factors are predictive of severe forms and death. Taking into account these predictive markers will allow the classification of patients with COVID 19 and their optimal management. The aim of our study was to investigate the value of neutrophil-lymphocyte ratio (NLR) in predicting mortality of COVID-19 patients hospitalised in the emergency department of Mahdia

Methods:

A retrospective cohort study including patients over 18 years old hospitalized in the emergency department with COVID 19 confirmed by either RT-PCR and or SARS-COV-2 Rapid Antigen Test, over a period of 09 months from September 2020 to May 2021.

The parameters collected were: demographic, clinical, biological characteristics as well as patient outcome and hospital mortality. The NLR was calculated for all patients.

Results:

454 patients were included, the mean age of the patients was 67 years (SD±14), the sex ratio (M/W) was 1.11. In-hospital mortality was 34% (155 patients). On-admission NLR levels were significantly higher in the non-survivor group 14.4 (SD ± 15.0) compared to the survivor group 9.7 (SD ±9,6) (p=0.001). Although NLR differed significantly between the survivor and non-survivor groups, this ratio was not identified as a predictor of mortality in COVID-19 lung disease as the informational index study showed low sensitivity and specificity.

Conclusion:

Our study showed that on-admission neutrophil-lymphocyte ratio (NLR) was statistically higher in non-survivors patients, however we did not find a cut-off value that could discriminate between surviving and non-surviving patients with acceptable statistical significance.