

CORRELATION OF MONOCYTE-LYMPHOCYTE RATIO TO BRIXIA SCORING SYSTEM OF THE CHEST RADIOGRAPHY IN COVID-19 PATIENTS ASSOCIATED WITH CLINICAL OUTCOMES

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ABSTRACT

Objective: To find the correlation between the monocyte-lymphocyte ratio (MLR) to the Brixia score on chest X-rays of COVID-19 patients with clinical outcomes.

Methods: Between November 2021-April 2022, all COVID-19 patients who were hospitalized at the dr. Sardjito is tracked down. Patients who met the inclusion and exclusion criteria were counted as MLR and Brixia score on the initial chest X-ray when admitted to the hospital, then statistical tests were performed.

Results: A total of 32 patients with COVID-19 pneumonia were sampled in this study. The result is that there is a weak correlation between MLR and Brixia score on chest X-ray (correlation coefficient/rho 0.254; p 0.161). The mean Brixia score between patients who died vs. recovered was 13.2 vs. 4.0, $p < 0.01$. The mean MLR between patients who died vs. recovered was 0.52 vs. 0.38, p 0.297.

Conclusion: There is a weak correlation between Brixia score and MLR which is not statistically significant. There is a significant difference in the average Brixia score between COVID-19 patients who died compared to those who recovered. There was no significant difference in the mean MLR between COVID-19 patients who died compared to those who recovered.

Keywords: Brixia score, MLR, chest radiograph, COVID-19