ABSTRACT

Background: Prevention for bacterial sepsis complications include early identification, source control and antibiotic treatment. Identification through an ideal biomarker; inexpensive, easy to do and interpret, available in any healthcare facility. Neutrophyl Lymphocyte count ratio (NLCR) is a new promising clinical biomarker being studied, beside of serum procalcitonin as gold standard of bacterial infection diagnostic biomarker.

Method: This research is a diagnostic test, cross-sectional design, conducted to 85 patient 18-60 years of age with clinically suspected sepsis and find differentiation of NLCR between grup PCT≥2 and < 2ng/ml, also correlation with serum procalcitonin.

Results: NLCR significantly different between group with PCT≥2 (15,99 ±12,02) and PCT<2 ng/ml(6,85±4,67);p<0,0001. Cut-off value for NLCR 7,71, with sensitivity 72,5%, specificity 71,1%, AUC 78,9%, but weak correlated (r=0,399) to serum procalcitonin.

Conclusion: NLCR has not yet become an alternative biomarker of bacterial sepsis. Large scale research are needed to evaluate effectiveness of this promising biomarker.