Correlation between a RT-PCR of nasopharynxs swab, a neutrophil lymphocyte ratio and an absolute lymphocyte count in a suspected Covid -19 patient

Tjiptaningrum A.1, Kurniati I.2, Anggraini DI3

Faculty of Medicine of University of Lampung1, Faculty of Medicine of University of Lampung2, Faculty of Medicine of University of Lampung3

agustyas.tjiptaningrum@fk.unila.ac.id1, intanri.kurniati@fk.unila.ac.id2, dwiindriaanggraini@gmail.com3

Abstract

**Purpose:**

The aim of our study is to analyze the correlation between a RT-PCR of nasopharynx swab and a neutrophil lymphocyte ratio (NLR), and between a RT-PCR and an absolute lymphocyte count (ALC) in a suspected Covid-19 patient.

**Research Methodology:**

This study is an anylitical observational research with cross-sectional method. Sampling method was consecutive sampling. Subjects with suspected Covid 19 were taken from Sariasih Hospital, Karawaci, Tangerang from May-September 2020. Subsequently, we took nasopharinx swab and whole blood sample. The swab was examined with RT-PCR for SARSCoV-2 and we ran complete blood count for whole blood sample. The number of subject was 29 subjects. NLR was divided into 2 groups, ≥ 3.13 and <3.13. ALC was also divided into 2 groups, ≥ 1500 cells/mm3 and < 1500 cells/mm3. A RT-PCR was divided into 2 groups, positive and negative. We performed Chi-Square test for correlation analysis between a RT-PCR and NRL, and also between a RT-PCR and ALC.

**Results**

There was no correlation between the RT-PCR result and a NLR, and also between the RT-PCR result and a ALC.

**Limitations**

We didn’t conduct an analysis of other factors that could influenced a NLR and a ALC.

**Contribution:**

We hope our study can contribute for diagnosis of a suspected Covid 19 patient in health service center.

***Keywords:*** *suspected Covid 19, NLR, RT-PCR*