

ABSTRACT

Desti Amelia, Nim : 1534001, 2019.The different uric acid level on the blood of fasting and non-fasting students of DIV Medical Analysis, Faculty of Medical Analysis, Universitas Katolik Musi Charitas Palembang.

Background:Fasting is not necessary for uric acid level measurement in most of the medical laboratory. However, the minister of health of Republic Indonesia in 2013 regulated that the uric acid measurement should be conducted after 10-12 hours before the blood sampling, indicating the patient should do fasting before the blood sampling. The issues of fasting and non-fasting for uric acid test is still in debating until now because several studies reported that the most of test result of patients who did not do fasting exhibited a higher uric acid level compared to the patients who do fasting. Moreover, this present study aims to investigate the effect of fasting and non-fasting activities in the uric acid level.

Method: 34 participants from the DIV medical analysis students are participating in this study. The inclusion and exclusion principles are used to determine samples. The study uses *one group pretest-posttest* where the main subject is divided into two groups which are the fasting group and non-fasting group. The samples of the fasting group have done the fasting activity for 10-12 hours before the blood sampling, while the non-fasting sample spontaneously do the blood sampling without doing any fasting. All the blood samples are taken using venous blood sampling. All the obtained blood serum are then analyzed using Biosystem A15 with uricase/peroxidase method.

Result: 34 blood samples are testing on this study. The result shows that the average uric acid level of the sample who do fasting and non-fasting is 5,4 mg/dL and 7,1 mg/dL. The result indicates that non-fasting students have higher uric acid levels compared to the one who does fasting. The statistical analysis using *Paired t-test* also showed that there is a significant difference in the uric acid level of fasting and non-fasting samples showed by the significance level (*2-tailed*) of 0,000 which is less than the α value of 0.005 (Sig. < 0,005) with the confidence level of 95%.

Conclusion: There is a significant difference in the uric acid level of fasting and non-fasting samples. The results suggest the patient who wants to do uric acid measurement doing fasting for 10-12 hours. It is because the purine containing on the food can affect the uric acid level on the body, and fasting can neutralize the uric acid. Thus, the uric acid level can be well measured.

Keywords: Uric Acid, Fasting, Non-fasting