

ABSTRACT

Gusti Ayu Saputri, NIM: 1534038. Different hemoglobin level before and after light physical exercise. A study on the first and third-grades student of DIV Medical Analysis, Faculty of Medical Science, Universitas Katolik Musi Charitas Palembang 2019.

Background: Hemoglobin is a protein substance that binds to iron (Fe^{2+}) which can color the blood red. Hemoglobin consists of two main parts namely heme and globin. Hemoglobin in the blood will increase because of the concentration of blood due to physical activity carried out where there will be an increase in hemoglobin levels so that the results of the examination carried out can affect the results released, namely false height. It is recommended to take a break of at least 15 minutes before taking blood, aiming to normalize the fluid balance in the body. This study aims to see differences in hemoglobin levels before and after mild physical activity.

Method: this study used pre-experiment with the type of one group pretest posttest. The sample used was venous blood from a Health Analyst DIV student. Samples included in the inclusion and exclusion criteria were 32 people. Venous blood collection is carried out 2 times before and after as much as 2 ml. Data that has been obtained was analyzed using *paired T-Test*.

Result: The average hemoglobin level before 13.14 g / dL and after 13.20 g / dL with P value: 0.208 (*2-tailed*) which means there is no difference before and after doing light intensity physical activity in DIV Health Analyst students.

Conclusion: The blood sampling activity should be taken after the resting time of 20 minutes and after doing the light physical exercise to normalize the fluid balance of the body.

Keywords: Hemoglobin, Physical Exercise