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Research Article

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Link of Peripheral Blood Oxygen Level with Exercise

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Abstract

The objective of present study was used to analyze the relation of peripheral blood oxygen level with exercise. It is the measurement of oxygenated hemoglobin to the total of human blood. In this project there were 200 subjects participated who's age between 18-22 studied in BZU. In this study we performed t.test. We used a device pulse oximeter to judge the blood oxygen saturation.

Keywords: Pulse Oximeter, Oxygen Saturation (spO_2), Oxygenated (O_2Hb)

Introduction

Peripheral blood oxygen saturation (spO_2) is used to observe the concentration of oxygenated hemoglobin in arterial blood to total number of (saturated+ unsaturated) blood. It usually varies from 75 to 100. And also the blood level blow to 80. It causes the following situations such as Asthma, Heart disease, Anemia, Emphysema and lungs disease. Rapid heart rate causes the heart to work too hard and also the working of blood no more efficient [1].

Exercise is essential for our health. It increases our energy levels, improves muscle strength, maintain the body weight. The concentration of increasing calories depends on doing more exercise. Better the efficiency of cardiovascular system. Exercise sustains the brain function, enhances the immune system and it is good for heart. To remain active reduces to developing degenerative bone diseases [2].

The main purpose of this project was used to observe the link of blood oxygen level to the exercise.

Materials and Methods

Analysis Peripheral blood oxygen level

It is technique used for the estimation of the oxygen saturation level usually measured by a pulse oximeter device. It can be calculated by following formula:

$SpO_2 = HbO_2 / HbO_2 + Hb$

Results and Discussion

Table 1: Link of Blood oxygen level with Exercise (Means+ Standard Deviation) is given in Table 1 as follows:

In this study the mean values and standard deviation of 200 subjects as follows. And also we calculated these values on the basis of male, female and both distribution. The mean and standard deviation values of male who agreed to do exercise is 96.90±5.02 and who were not agreed is 95.28±2.42. As the females who answered in yes or no, the standard deviation and mean values are 95.70±7.17 or 95.51±5.60. Both of male and female results also calculated by means and standard deviation values t.test also examined. But the *p* value of male was 0.18, female was 0.86 and both was 0.57. All these values were insignificant. Actual *p* value is less than to be 0.05.

	Like Ness	Dislike Ness
	Yes	No
Male	96.90±5.02	95.28±2.42
Female	95.70±7.17	95.51±5.60
Both	96.11±6.52	95.58±5.25

***P* value < 0.05**

Questionnaire based studies have been given important research outcomes [3-10].

After doing the hard exercise the Oxygen consumption increases and also affects its metabolic processes. Exercise reduces the effects of low back pain as well.

Conclusion

From this analysis there is no relation of blood oxygen saturation regarding with exercise on the basis of performing following test. And also the *p* value is insignificant. After doing the hard exercise the Oxygen consumption increases and also affects its metabolic processes.

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