

Relating Normal Blood Oxygen Saturation with Dandruff in Hair Cells

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Abstract

The objective of this article was to associate normal blood oxygen level with dandruff in hair cells. Blood Oxygen saturation is defined as the amount of oxygen carried by the hemoglobin molecules in blood containing both oxygenated and deoxygenated fractions of hemoglobin. Dandruff is a chronic scalp skin cells condition and marked by the flaking of the skin cells, which falls off as white dots while combing and shaking head making embarrassment for the person. This article discusses about oxygen saturation, its measurement through pulse oximeter, dandruff, its causes and its treatment. We took samples of 200 students with their consents. These subjects were the students of Bahauddin Zakariya university, Multan, Pakistan. Normal blood oxygen saturation has no scientific relation with Dandruff in hair cells.

Keywords : Oxygen saturation, Pulse oximeter, Hypoxemia and dandruff.

INTRODUCTION

Blood Oxygen saturation is defined as the amount of oxygen concentration carried by the hemoglobin molecules in blood containing both oxygenated and deoxygenated hemoglobin fractions. Normal oxygen saturation in a healthy individual ranges from 97 to 100%. Pulse oximeter is a device to find out the reading of oxygen saturation in blood, which has Red and infrared light emitting diodes and a photo detector. Oxygenated and deoxygenated hemoglobin molecules in blood have different light absorption rate. When finger insert in the pulse oximeter between the light source and light detector, the oximeter measure the amount of oxygen in the arterial blood by sensing the percentage of oxygenated and deoxygenated hemoglobin fractions as oxygenated hemoglobin absorbs more infrared rays while deoxygenated hemoglobin absorbs red light rays more. Oxygen concentration in blood less than 90% is dangerous as in condition known as Hypoxemia with oxygen level less than normal which is associated with lung diseases, pneumonia, emphysema, anemia, bronchitis, heart problems and shortness of breath. But oxygen level in blood can increased by factors such as doing some regular exercise, deep breathing in fresh air, drinking water, nurture plants near your working places, taking good diet and going to a trip to sea.

Dandruff is a chronic scalp skin cells condition and marked by the flaking of the skin cells, which falls off as white dots while combing and shaking head making embarrassment for

the person. Dandruff is a chronic condition of skin hair cells due to overproduction of a secretion Sebum that lubricates hair and skin cells. It is inflammatory condition of scalp. Its main cause is a fungus malassezia lives on the scalp of the adults. It causes irritation and more skin cells to grow. The extra cells die and fall off and appear white dots regarded as dandruff. Dandruff can be treated by using shampoos on wet hairs daily, anti-dandruff shampoos may be Head and Shoulders, Selsun Blue and Nizoral A-D anti-dandruff shampoo. Other treatment involves use of lemon juice. Lemon's acidity helps to balance the pH of scalp. Coconut oil usage improves skin hydration, Aloe Vera applied on wet hairs along with a shampoo can decrease dandruff symptoms because Aloe Vera has anti-bacterial and anti-fungal properties. Another treatment is the use of Apple Cider Vinegar which removes dead skin cells from the scalp and also balance the pH of scalp. Stress is also a factor playing vital role in dandruff growth as stress weakens the immune system and decrease the body's capacity to fight off infections.

The objective of this article was to correlate the normal blood oxygen level and dandruff in hair cells.

Project designing

We took samples of 200 students with their consents. These subjects were the students of Bahauddin Zakariya university, Multan, Pakistan.

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MATERIAL AND METHODS

Protocol for the measurement of oxygen saturation in blood by pulse oximeter.

For the measurement of oxygen level in blood, first of all tap the button of pulse oximeter then insert your finger in it and wait until the oximeter shows reading. After 10 seconds, pulse oximeter screen shows view of pulse rate and oxygen saturation readings. Here the blue bar shows the visual representation of your heart beats while the waveform shown in red colour shows the last 5 second representation of your heart beats.

Statistical analysis

Statistical analysis was applied on the Microsoft Excel Stat software.

RESULTS AND DISCUSSION

Table No: 01 shows the relation of Normal blood oxygen (Mean \pm SD) with Dandruff in hair cells.

| Gender | Infected with dandruff | Un-affected | p-value |
|----------|------------------------|------------------|---------|
| Male | 95.97 \pm 6.02 | 96.66 \pm 3.03 | 0.56 |
| Female | 95.84 \pm 5.07 | 94.57 \pm 10.9 | 0.51 |
| Combined | 95.87 \pm 5.29 | 95.42 \pm 8.64 | 0.71 |

Table No: 01 shows the relation of Normal blood oxygen level in blood with Dandruff in hair cells. Average, Standard deviation and T-test has been applied on the data of Male, Female and combined with their Yes and No values but the *p* value for these three datas appear to be greater than 0.05, which shows that the data is non-significant and there is no scientific relation between the Normal blood oxygen level and Dandruff in hair cells.

Conclusion

Normal blood oxygen level and Dandruff in hair cells have no scientific association.

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